WHO Commission on Social Determinants of Health

Globalization and Health Worker Crisis

Globalization Knowledge Network
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Preface

The Globalization Knowledge Network (GKN) was formed in 2005 with the purpose of examining how contemporary globalization was influencing social determinants of health. It was one of nine Knowledge Networks providing evidence-informed guidance to the work of the World Health Organization’s Commission on Social Determinants of Health (2005-2008): like most of the Knowledge Networks, its operations were financed by an external funder (in this case, the International Affairs Directorate of Health Canada, Canada’s national ministry of health). The GKN conducted two face-to-face meetings to debate, discuss, outline and review its work, and produced thirteen background papers and a Final Report. These papers and the Final Report underwent extensive internal and external peer review to ensure that their findings and policy inferences accurately reflected available evidence and scholarship.

This GKN publication series was prepared under the general editorship of Ronald Labonté, with assistance from Vivien Runnels and copy-editing provided by Wayne Harding. All views expressed are exclusively those of the authors. A complete list of titles in the publication series appears on the inside back cover of this monograph.

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Globalization and Health Worker Crisis

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AEC</td>
<td>ASEAN Economic Community</td>
</tr>
<tr>
<td>AFTA</td>
<td>ASEAN Free Trade Area</td>
</tr>
<tr>
<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
</tr>
<tr>
<td>DENOSA</td>
<td>Democratic Nursing Organisation of South Africa</td>
</tr>
<tr>
<td>EEA</td>
<td>European Economic Area</td>
</tr>
<tr>
<td>GATS</td>
<td>General Agreement on Trade in Services</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HHR</td>
<td>Health human resources</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>HTA</td>
<td>Hometown Association</td>
</tr>
<tr>
<td>IFI</td>
<td>International Financial Institution</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IOM</td>
<td>International Organization for Migration</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MERCUSOR</td>
<td>Southern Common Market Agreement</td>
</tr>
<tr>
<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PAHO</td>
<td>Pan-American Health Organization</td>
</tr>
<tr>
<td>PNP</td>
<td>Provincial Nominee Program</td>
</tr>
<tr>
<td>PPP</td>
<td>purchasing power parity</td>
</tr>
<tr>
<td>RN</td>
<td>registered nurse</td>
</tr>
<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
</tr>
<tr>
<td>SSA</td>
<td>sub-Saharan Africa</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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</table>
With the increasing flow of skilled professionals from low-income to high-income countries, there are often costs borne by poorer nations that are greater than the gains they may receive through remittances or by reducing domestic labour market failures. These costs are particularly great when the skilled professionals are health workers coming from countries facing severe shortages and/or health crises. Any policy solution must find a fine balance between the private welfare gains of remittances and the public costs of lost training revenues; between the aggregate welfare gains to GDP of remittances and the (often engendered) individual or local losses to families or communities left behind; and between the individual right to migrate to improve life and the loss of access to health care for communities. Maximizing equity in health outcomes (within and between countries) in the context of such flows requires strategies that simultaneously address push and pull factors. These strategies, in turn, will require net capital transfers (wealth flows) from richer to poorer countries, and from healthier to unhealthier populations. Specific strategies include:

Key strategies for source countries

- Improve registration, examination and deployment procedures for foreign-trained health human resources (HHR) while not targeting or relying on foreign trained HHR from underserved source countries and confining new foreign HHR to employment in the public sector with priority given to rural or underserved areas.
- Ensure training curricula meet local needs (rather than export market needs) and develop mid-level cadres capable of meeting local needs and less likely to seek migration.
- Improve retention incentives in health services by providing, e.g., extra pay/benefits to health workers (particularly in rural/underserved areas), better management and career paths, supportive supervision, and greater priority in public expenditures to health spending.
- Improve job security and HHR planning by easing re-entry for HHR seeking temporary employment abroad, giving priority to training...
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and retaining domestic supply over dependence on foreign supply, and not committing to liberalized trade in health services in trade treaties without prior experience in regulating such trade.

- Increase public-good contributions from the Diaspora through novel matching and tax incentives, including bilateral tax agreements permitting taxes by émigrés to be paid directly to their home country.
- Decrease economic and political push factors, with donor assistance and other reverse capital flows from rich to poor nations.

**Key strategies for receiving countries**

- Improved self-sufficiency in HHR production through increased training, making better use of already landed foreign-trained HHR who are presently unlicensed and ensuring that poor working conditions do not drive some domestic HHR (notably nurses) away from employment in the health sector.
- Adoption and improved enforcement of ethical codes of conduct in recruitment.
- Creation of bilateral agreements to regulate the recruiting process, ensure that the costs of migration are borne by the receiving and not the source country (or migrating individual) and that measures are put in place to improve return flow or otherwise increase the knowledge or financial contributions of the Diaspora back to their home countries.
- Improved return or two-way HHR flows through time-limited visas, twinnings, or guaranteed return privileges for émigrés returning home for service leaves, and equal two-way staff flows so that source countries would not experience a loss of staff and at the same time would benefit from new knowledge brought by health practitioners from recipient countries, to minimize the negative health externalities of HHR flows from source to receiving countries.
- Increased contributions to the health systems of source countries through guaranteed salary top-ups for remaining health professionals, increased and sustained targeting of health aid (following the 2006 World Health Report of 50 per cent of health aid for HHR retention and 50 per cent of that for training), and bilateral agreements creating new tax measures through which public-good remittances can improve financing of the health and health training systems.

**Key strategies for regional and international institutions and mechanisms**

- Support the Global Health Workforce Alliance which seeks to identify and resolve the problems surrounding health worker migration.
- Ensure human rights monitoring through inter alia the office of the Special Rapporteur on Health, in which States report on, and recommend, measures they are implementing to reduce the factors pushing health workers to emigrate.
- Develop cross-border public health care agreements based on arrangements now evolving in the European Union to minimize the drain created by private health care to “medical tourism,”
- Re-examine macroeconomic conditionalities that may impede health care expansion in least developed and low income source countries, particularly budgetary ceilings associated with IMF/World Bank Medium Term Expenditure Frameworks that indirectly prevent expansion of health care spending in many of the worst affected countries.
Globalization is partially responsible in various ways for causing the “push” and “pull” conditions which have contributed to the chronic problems in health human resources (HHR). Deteriorating economic and broader social and environmental conditions, at least partly attributable to liberalization or other forms of global market integration, are pushing health workers out of their countries. Conditions associated with loans or debt relief from the international financial institutions (IFIs) limit governments’ abilities to pay adequate salaries or to provide incentives for health workers to remain. As a result, physicians and nurses are being pushed out and governments are hard-pressed to implement effective remedies to stop the exodus.

The movement of health professionals is asymmetrical – from poor, developing countries to rich, developed ones – with the poorest countries unable to attract replacement workers. Therefore, the complete HHR migration picture, often portrayed as a conveyor belt, does not entirely close full circle. For those countries unable to draw in new health workers to replace those who have left, the inevitable result is diminished health care access and services. For those countries which purchase the temporary services of foreign health workers to fill vacancies left open by departures, the price tag to the health system runs high and brings its own set of problems.

On the other side of the coin, globalization is making it easier for rich countries to “pull in” health workers. Border barriers in rich countries are being actively lowered for professional, technical and skilled immigrants but raised for semi- or lesser-skilled individuals. The main destination countries of health worker migrants are the five predominantly English-speaking OECD countries – the UK, the US, Canada, Australia and New Zealand. These countries suffer their own HHR shortages and are increasingly relying on

1 Unless otherwise specified, we use the terms “developed” and “developing” to refer to World Bank designated “high-income” and “least developed, low and middle-income” countries respectively. We also interchange ‘rich’ and ‘poor’ for these categories. While admittedly imprecise, detailed information on the economic per capita wealth of different countries is less important to this paper’s analysis than health implications of the flow of HHR from relatively poorer countries with high burdens of disease to richer countries with low burdens of disease.
the immigration of foreign-trained health workers to relieve them. These countries are able to offer higher pay, better working conditions and greater opportunities, effectively pulling in foreign health workers.

In addition to these push and pull factors are a number of others associated with globalization which further foster HHR migration, notably the internationalization of professional credentials and of citizenship and remittances. Professional credentials, in health as in other fields, are increasingly recognized across borders particularly where free trade areas have been formed – the European Economic Area (EEA) serving as the best example. Eased migration and mobility (including, for instance, through cheaper, faster and easier travel, multilingualism, post-colonial ties and common academic curricula) have contributed to a veritable sense of “global citizenship” worldwide, with professional credentials serving as passports. The opportunity to accumulate savings and remit portions to family and communities back home is a significant draw for health workers to migrate. While remittances represent important private welfare gains, we demonstrate in this paper that there is little evidence that they boost public welfare, including health care.

Some countries have latched on to the opportunities brought on by globalization with regard to HHR mobility. In this paper we examine two such opportunities. The first is the burgeoning industry of medical tourism where patients travel to obtain health services. In some cases countries move their patients for treatment abroad. In most cases patients opt to acquire health services abroad because they are cheaper and more readily available. Across the globe countries are embracing this form of tourism and actively fostering it because of the hard currency which flows in with it. Examples are Thailand, India, Bulgaria, Brazil and Cuba. We explain in this paper that this is typically to the detriment of health services for their own populations. The second opportunity, which Cuba, the Philippines, India and a few other countries have grasped, is to actively export health workers with the aim of capitalizing on their remittances and drawing income by contracting out their temporary services.

Our paper explores the impact HHR migration has had on health systems in both source and receiving countries. We also explore evidence of impacts on the health of migrant health workers themselves. The results are by and large predictable but worthy as a reminder of the reasons why the health worker migration crisis is a pressing challenge that needs to be addressed without fail.

This paper also examines what international human rights law, as a modern day tool of globalization, offers in the way of resolving competing interests of individuals at opposite ends of the spectrum presented by HHR migration. We ask whether the freedom of movement of the individual or the right of the individual to health care takes precedence under international law. Next assessed in the paper is the degree to which regional and global trade agreements – also modern day tools of globalization – facilitate international labour mobility and drive the privatization of health services.

Nine country studies, selected for their diversity of strategies to curb the outflow of HHR or enhance their inflow, lead into our analysis of policy options. These case studies demonstrate well how net source, net recipient and net exporting countries are acting at loggerheads by simultaneously stimulating or stemming the crisis. These strategies and others explored throughout the paper are reviewed in our section on policy options to mitigate global health inequities arising from HHR flows. These options are consolidated under six “R” categories: return of migrants; restrictions of international mobility; recruitment managed through bilateral and multilateral agreements; recruitment of in-country health workers; restitution for loss of human capital; and, retention through creative means. The paper concludes with the prominent lessons learned and principal recommendations derived.
A. Introduction and summary of current state of flow and historical trends

1. Introduction

The health care workforce has traditionally ranked low on the health policy agenda (Narasimhan, 2004). As a result, health human resources (HHR) in most countries suffer chronic problems such as maldistribution of health workers (both over- and under-supply), skills imbalances, and poor working conditions (Dubois & McKee, 2006). All reflect poor human resources management and regulation (Dubois et al., 2006). Too often and increasingly these chronic problems result in the loss of HHR through migration (Bach, 2003; Joint Learning Initiative, 2004). Most analysts have found strong evidence of major and enduring global shortages in nurses and doctors over the next decades (Bach, 2003; Joint Learning Initiative, 2004; Liese & Dussault, 2004). Moreover, while workforce prediction is a highly imperfect science, abrupt surges in HHR out-migration from a number of poor countries to a small handful of rich countries indicate a trend which should be closely monitored and acted upon, particularly when it brings health systems in source countries to the point of collapse (Pond & McPake, 2006).

Globalization is partially responsible for causing the conditions that have contributed to the chronic problems in HHR. As explained by Marchal and Kegels, the opening of international borders for goods and labour, a key strategy in the liberal global economy, has been accompanied by professional mobility (Marchal & Kegels, 2003).

This mobility is very asymmetrical, from poor countries to wealthier ones. The health sector is no exception to this phenomenon. Doctors and nurses trained in developing countries are recruited to work in countries of the Organisation for Economic Co-operation and Development (OECD). The US received the highest number of doctors and nurses, followed by the UK. Doctors trained in Sub-Saharan Africa who work in OECD countries represent close to one quarter (23 per cent) of the current doctor workforce of those source countries.
While the literature on health worker migration is typically limited to the professions of physicians and nurses, other health workers (such as ophthalmologists and radiologists) are also part of the phenomenon. Data that include numbers within these professions in source countries, challenges they face, rates of attrition as well as analysis of the extent to which these professionals are migrating are much harder to come by. Data on pharmacists are a notable exception, with a small amount of literature and other resources that combine to form a snapshot.

The snapshot is one of global shortage, with wealthy OECD countries suffering mild but ever-increasing shortages of pharmacists and developing countries experiencing extreme shortages. For instance, one study projected in 2002 that the US would experience a shortfall of over 150,000 pharmacists by the year 2020. In Australia the demand for pharmacists is projected to increase between the years 2000 to 2010 from 13,000 to 17,000. In Canada about 10 per cent of pharmacy positions were vacant in the year 2000 (International Pharmaceutical Federation (FIP), 2006). The data from developing countries are perhaps more worrying:

**Table 1: Doctors and nurses trained abroad working in OECD countries**

<table>
<thead>
<tr>
<th>OECD country</th>
<th>Doctors from abroad</th>
<th>Nurses from abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% of total</td>
</tr>
<tr>
<td>Australia</td>
<td>11,122</td>
<td>21</td>
</tr>
<tr>
<td>Canada</td>
<td>13,620</td>
<td>23</td>
</tr>
<tr>
<td>Finland</td>
<td>1,003</td>
<td>9</td>
</tr>
<tr>
<td>France</td>
<td>11,269</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>17,318</td>
<td>6</td>
</tr>
<tr>
<td>Ireland</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2,832</td>
<td>34</td>
</tr>
<tr>
<td>Portugal</td>
<td>1,258</td>
<td>4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>69,813</td>
<td>33</td>
</tr>
<tr>
<td>United States</td>
<td>213,331</td>
<td>27</td>
</tr>
</tbody>
</table>


**Table 2: Shortage of pharmacists in a sample of developing countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimbabwe</td>
<td>Only 20% of the approved public sector positions for pharmacists were filled in 1999. The majority of the 524 registered pharmacists work in the private sector</td>
</tr>
<tr>
<td>Kenya</td>
<td>In 2005, there were a total of 1342 pharmacists registered in this country with a population of 34 million. While the number of graduates from pharmacy had doubled between the year 2000 and 2005, there were still only 53 graduates in 2005. 190 pharmacists have migrated out of Kenya in the last 10 years.</td>
</tr>
<tr>
<td>Uganda</td>
<td>There are 249 pharmacists serving a population of 27 million; just 1 pharmacist per 100,000 population. 90% of these pharmacists practice in the Central region. A maximum of 25 pharmacists graduate each year.</td>
</tr>
<tr>
<td>South Africa</td>
<td>In 2001, about 1,000 pharmacy students graduated from South Africa; in the same year 600 pharmacists emigrated abroad.</td>
</tr>
</tbody>
</table>

*Source: (International Pharmaceutical Federation (FIP), 2006).*
The movement of health professionals from poor to rich countries takes place to the detriment of poor countries which lose not only much needed human resources but also their considerable investment in education and taxable income, as well as lower economic development and growth that is consequent to a less healthy populace. So long as poor countries continue to push out their health professionals because of chronic problems, and medical systems in wealthy countries continue to pull them in because they remain heavily dependent on imported health workers to fill gaps in domestic production and underserved areas, the brain drain phenomenon will continue. At the same time, through multilateral agreements, human rights frameworks and possibly international financial institutions, globalization can be harnessed as a solution to the crisis. The various levels at which globalization acts upon the health worker migration crisis will be explored in this paper.

Health care is one of the determinants of population health (Anand & Baernighausen, 2003). Human resources are a prerequisite for health care, with most medical interventions requiring the services of physicians, nurses or other types of health workers. The health workforce is of strategic importance to the performance of national health systems. A poorly resourced health workforce inevitably affects the health of populations (see Section C for discussion) (Marchal et al., 2003) (Dussault & Dubois, 2003). In their correlational study of HHR and health outcomes, Anand and Baernighausen found that human resources for health in aggregate terms matter significantly in health outcome measures of maternal mortality rates, infant mortality rates and under-five mortality rates. Physicians, nurses and midwives together significantly lower maternal, infant and child mortality rates after controlling for other variables that are typically used to explain health outcomes (Anand et al., 2003).

The Joint Learning Initiative aptly describes human resources as the “glue of the health system,” without which technologies, drugs, infrastructure, knowledge and information cannot be applied (Joint Learning Initiative, 2004). Quite simply, unless enough newly trained physicians, nurses and other health workers replace those who leave already severely understaffed health systems, health care delivery deteriorates. While imperfect, vacancy rates are in many instances the best available measure we have of shortages. Using the example of Ghana’s Health Service, the number of vacancies reveals a health care system in crisis. In 2002 there was a nearly 50 per cent vacancy rate for doctors, and 57 per cent for professional nurses. A memo issued on the matter that year by the Director-General of the Ghana Health Service indicated that more Ghanaian doctors worked outside the country than within (Mensah, Mackintosh, & Henry, 2005). Of course, vacancies are not singularly a result of out-migration, though they are affected by it. Additionally, countries with relatively small workforces and inflows, such as Malawi, can be hugely affected by even numerically small outward flows (Gerein, Green, & Pearson, 2006a).

The migration of health workers is a growing and notable obstacle to health in developing countries, especially in Sub-Saharan Africa (United Nations Population Fund (UNFPA), 2005). Pushed out by poor working and living conditions in many African countries and pulled in by far better conditions in wealthier ones, the exodus of physicians and nurses from the region leaves African populations, already bearing the greatest burden of disease and highest rates of poverty, with crippled health care delivery. The situation in much of the Caribbean is only slightly better. In an effort to improve the situation, we need to be clear on why the exodus of health professionals is occurring and the impact it is having on health. Globalization’s drivers of migration are explored in Section B. The impact this migration has on health systems and health overall are considered in Section C and D. Implicit in this discussion are the roles of remittances and Diasporas. Financial remittances to family and community associations in home countries are often part of the international medical graduate’s new life upon migration. The degree to which these wealth transfers, often cited as favourable by-products of migration, can or do improve health care financing in source countries is considered.

We choose to refer to this as a ‘brain drain’ rather than a ‘brain circulation’ since, as we later demonstrate, there is little empirical evidence of a return flow from rich to poor nations.
Section E explores how human rights instruments and monitoring mechanisms, as a feature of modern day globalization, can serve as a tool for managing the ethical recruitment of foreign-trained health workers. The state of HHR and migrants’ rights in source countries is examined along with human rights obligations of recipient countries. The Section ends with a discussion of whose right to health prevails: those in source countries or recipient ones. Section F describes how other modern day mechanisms – regional free trade agreements and the World Trade Organization, through the General Agreement on Trade in Services (GATS) – are facilitating labour mobility of health workers specifically.

In the appendix, nine country studies are presented for the strategies they are using in an effort to curb the outflow of HHR or to enhance their return. Four are Sub-Saharan African countries that have suffered from the exodus of their health professionals. The extent of the crisis, and the measures they have adopted to stem HHR out-migration, are explored for the lessons they may provide. HHR shortages in three of the main destination countries, the extent to which foreign-trained health professionals are relieving these shortages and the policies in place to further ease and limit immigration of foreign health workers are also considered. Finally, the situations of the Philippines and Cuba as intentional exporters of health workers are examined along with the impact such exports have on these countries. We conclude with a discussion of various policy options (actual or proposed) to manage HHR migration flows in a way that enhances global health equity without compromising individuals’ rights to seek migration.

2. The global picture of HHR migration

2.1 Europe

Some countries in Europe face specific challenges. As Dubois et al. explain, the countries of the newly independent states (NIS) of the former USSR and the countries of Central and Eastern Europe (CEE) “inherited a workforce that was especially ill-suited to the demands facing modern health care systems. Large numbers of physicians were trained but many received limited and often narrowly specialized training, with little experience of evidence-based health care or many of the achievements of modern health care. Their inherited nursing workforces had low levels of skills and were ill-equipped to take on the roles adopted by their equivalents in Western Europe” (Dubois Carl-Ardy, McKee, & Nolte, 2006). These problems have been overcome but these countries now face the challenge of increased international mobility of professionals (Nicholas, 2007). With the enlarged European Union (EU), health professionals in CEE countries, such as Lithuania and Poland, now have much greater opportunities for international mobility and are lured by better-paying jobs in other EU countries (Buchan, Jobanputra, Gough, & Hutt, 2006; Dubois Carl-Ardy et al., 2006). Slovenia is already beginning to experience a significant deficit of physicians due to out-migration (Nicholas, 2007).

Wealthier countries in Europe are experiencing challenges at different ends of the spectrum. For instance, the current “oversupply” of physicians and nurses in Spain and France (judged so by the lack of available positions for all those actively seeking employment) is a critical issue to these countries, particularly as regards to the way they will deal with over-production. In the meantime, the lack of jobs is drawing Spanish and French professionals to seek work in other countries. In contradiction, other wealthy European countries, such as Ireland (where over half of newly registered nurses in 2000 were foreign-trained), the Netherlands, Norway and the UK are experiencing severe HHR deficits. The immediate impact of shortages in these countries is long waiting lists (Tjadens, 2002). These problems have been overcome but these countries now face the challenge of increased international mobility of professionals (Nicholas, 2007). With the enlarged European Union (EU), health professionals in CEE countries, such as Lithuania and Poland, now have much greater opportunities for international mobility and are lured by better-paying jobs in other EU countries (Buchan, Jobanputra, Gough, & Hutt, 2006). Slovenia is already beginning to experience a significant deficit of physicians due to out-migration (Nicholas, 2007).

2.2 North America, Australia and New Zealand

Australia, New Zealand, Canada, and the United States have all experienced minor to significant shortages in domestically trained physicians and nurses (Bourassa Forcier, Simoens, & Giuffrida, 2004)

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3 Many health workers in Eastern Europe reportedly work for less than the minimum wage, although there is some dispute over the accuracy of this claim. Bach (2006) nonetheless cites evidence that “doctors in public hospitals typically earn US$362 per month after tax, which is not enough to live on (Bala and Lesniak 2005: 235).”
Globalization and Health Knowledge Network (Mullan, 2005) (Hawthorne, 2001). At present, all depend heavily on foreign-trained health professionals to fill important gaps in the supply of health human resources. If all foreign-trained physicians were to leave these countries today, one-fifth to one-third of all posts would become vacant. Certain regions within these developed countries would suffer even greater hits. For instance, in Canada more foreign-trained physicians fill posts in rural and underserved regions than do domestically trained physicians (Canadian Institute for Health Information, 2006). The province of Saskatchewan, for example, has nearly 55 per cent foreign-trained physicians, this figure rising even higher in the towns and smaller urban centres of the province (Labonté, Packer, & Klassen, 2006). Certain areas of practice would also suffer acute shortages in the absence of foreign-trained physicians (Canadian Institute for Health Information, 2005). In blunt terms, a review of the literature indicates that foreign-trained physicians in general are taking the jobs that domestically trained physicians do not want, and domestically trained physicians and nurses are not losing their jobs to their foreign-trained colleagues. There are enough jobs for all because domestic production in these countries is insufficient to meet demand.

2.3 Latin America and the Caribbean

There is little literature on health worker migration from Latin America. Within the region migration tends to be from poorer countries (e.g. Ecuador and Peru) to wealthier ones (notably Chile, where increasing numbers of public sector physicians have migrated to the private sector) (Bach, 2006). In the Caribbean, the brain drain of health workers has become a significant concern. At a Commonwealth Secretariat-sponsored Caribbean conference on the “managed migration” of nurses, participants estimated that the Caribbean is losing a minimum of 400 nurses annually through migration to the US, Canada and the UK (Public Services International, 2006). In Trinidad and Tobago it has been estimated that each year about one-third of nursing graduates resign from their duties in the public sector to take up positions abroad (Public Services International, 2006). The situation is grave. Approximately 35 per cent of posts in the region for registered nurses are vacant. Jamaica has the highest vacancy rate at 58.4 per cent. As a result, some countries in the region (in particular Barbados and Trinidad and Tobago) are now actively recruiting nurses, pharmacists and physicians from the Philippines, Cuba, Nigeria and Guyana in order to satisfy severe staff shortages (Public Services International, 2006). Cuba singularly stands out as a considerable over-producer and intentional exporter of physicians. We explore Cuba’s politicization of HHR exports in Section 2.7 below and its HHR production as a case study in the appendix.

2.4 Asia and the Arabian Gulf

With a quarter of the world’s population, the Southeast Asia region has only 12 per cent of the global health workforce. Numerous Asian countries have characteristics that foster professional mobility to key English-speaking receiving countries. They tend to be less developed than Western countries, have large and well-trained labour pools, and have the potential to supply English-speaking professionals in many different fields. India, the Philippines and Sri Lanka are prime examples in the health care field (Khadria, 2006).

India is a principal source of physicians in the four main OECD receiving countries. It ranks number one in both the United Kingdom (10.9 per cent of the total foreign-trained physicians) and the United States (4.9 per cent), supplies the second greatest number of foreign-trained physicians to Australia (4.0 per cent) and the third greatest number to Canada (2.1 per cent) (Mullan, 2005). The country provides the largest absolute number of physicians to recipient countries worldwide (Mullan, 2005). Developed and prosperous countries alike have also discovered India as a new source country for recruiting well-trained English-speaking nurses to meet their own shortages. In India nurses qualifying with a Bachelor of Science in Nursing are educated and trained to international standards of “registered nurses”, making it very easy for them to move abroad and work (Khadria, 2006). Private recruitment agencies have sprung up in India specifically with the aim of sending Indian trained nurses

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4 26.3% of all physicians in rural Canada were foreign-educated, compared to 21.9% in urban areas.
5 The majority of foreign-trained graduates in Canada, for instance, practice family medicine, largely outnumbering foreign-trained clinical, laboratory and surgical specialists combined in all but the province of Ontario.
to key Western English-speaking and Gulf countries. Around 4 million Indian migrants are working in Gulf countries of whom an estimated 40,000 to 60,000 are nurses (Percot, 2006). The Indian government in turn has established its own exporting department as a means of facilitating international migration of nurses and to safeguard them against exploitation. Hospitals are also diversifying investment into training and recruitment of nurses for overseas placements.

Yet India has among the lowest nurse-to-population ratios of all source countries, far behind South Africa and the Philippines, with a high number of unfilled positions, particularly in rural areas. Some of the best hospitals in the country are reportedly experiencing mass resignation and exodus of nurses to hospitals abroad (Khadria, 2006). In 2002, for example, nearly 13,000 health workers left the Philippines to work abroad. Of them nearly 93 per cent were nurses. In December 2004 the government-administered professional licensure examination for Filipino nurses counted at least 18,000 test-takers (The Philippines as a key exporter of HHR is explored in detail in our cases studies in the appendix to this paper.)

Evidence from Sri Lanka shows a similarly dramatic loss of physicians through internal and external migration, ranging from 15 per cent to 85 per cent, depending on the region. Unfortunately the study does not provide information on the years covered by these estimates (Aluwihare, 2005). Nearly 25 per cent of the doctors going abroad for higher studies do not return home after training. The economy of Sri Lanka in turn and like many other professional-exporting nations, depends heavily on remittances sent home by their workers from abroad. Remittances contributed 8.1 per cent to Sri Lanka’s GDP in 2004/5 – 57 per cent of the amount coming from workers in the Middle East.

It has been noted at international meetings on health worker migration that, while there is little hard data on health worker migration to the Arabian Gulf, these states are considerable importers of health workers. Some guesses estimate that 80 per cent of health workers in the Gulf States are foreign-trained. The absence of states such as Kuwait, the United Arab Emirates, Bahrain and Saudi Arabia, at international meetings on health worker migration has been noted as a concern. Although Sudan and Saudi Arabia have entered a bilateral agreement on the managed migration of Sudanese physicians to Saudi Arabia, Sudanese physicians are being recruited through the back door. The ability to circumvent provisions in bilateral agreements appears to be a common weakness among all agreements. Careful monitoring of, and identification of gaps in, such agreements are urgent policy issues.

2.5 Sub-Saharan Africa

African health care systems suffer severely from all patterns of migration of health professionals. Physicians and nurses based in rural and poor areas move to cities for better working conditions and environments. Urban-based physicians and nurses move from the critically under-equipped and under-funded public sector to the private sector (Gerein, Green, & Pearson, 2006b). And, finally, these professionals and their colleagues in the public sector leave to work in more developed countries to obtain greater pay, better working conditions, an overall better quality of life and improved opportunities for them and their families.

The need for medical professionals is arguably greatest in sub-Saharan Africa (SSA) (Dovlo, 2005b), and yet significant numbers of African-trained health workers migrate to developed countries to work each year. Six of the 20 countries with the highest physician emigration factors (arrived at by measuring the loss of physicians from a country as a proportion of the physicians remaining to do the work of health care) are in sub-Saharan Africa (Mullan, 2005). There are at least 11,000 SSA-trained physicians known to be licensed and practicing in the UK, US and Canada.

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6 Exploitation can take numerous forms such as: mandatory HIV testing, breaches of confidentiality regarding HIV; sexual exploitation (sexual harassment and sexual violence and rape); verbal, psychological and organic abuse; withholding or delayed and irregular payment; withholding travel documents; long hours of work; unequal pay for work of equal value; no rest days; derogatory attitude; limited freedom; and arbitrary termination of contracts. (See, e.g.: Abdul-Rashid, A-A. 2001. “Bangladeshi Migrant Workers in Malaysia’s Construction Sector: Skills training and language programmes for prospective international workers should be introduced or otherwise expanded”, Asia-Pacific Population Journal, 16(1), 2001, pp. 3-22; and, Chowdhury A.R. 2004, “The 1990 UN Convention: the Magna Carta of migrant workers”, The New Age (Dhaka), July 1, 2004.


alone (Hagopian et al., 2005). In Africa the public health sector is arguably the most seriously affected by inadequate HHR and it is this sector which serves the bulk of Africa’s population. Most of this population is classified as poor and endures the greatest burden of disease globally (see Figure 2).  

These health professionals leave behind severely crippled health systems in a region where life expectancy is only 50 years of age, 16 per cent of children die before their fifth birthday, and the HIV/AIDS crisis continues to burgeon. The population of the subcontinent totals over 660 million, with a ratio of fewer than 13 physicians per 100,000. The region has seen a resurgence of various diseases that were thought to be receding, while public health systems remain inadequately staffed. According to one report, SSA is approximately 700,000 physicians and 700,000 nurses short of staffing requirement necessary to meet the Millennium Development Goals (MDGs) (Bueno de Mesquita & Gordon, 2005). Understaffing results in stress and increased workloads (Dovlo, 2005c). Many of the remaining health professionals are ill motivated, not only because of

**Figure 2: Africa’s unequal burden and shares**

<table>
<thead>
<tr>
<th>Burden of disease</th>
<th>Share of population</th>
<th>Share of health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>86.24%</td>
<td>98.7%</td>
</tr>
<tr>
<td>75%</td>
<td>13.76%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source: Our Common Interest 2005:184

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11 A very recent study by Clemens concludes that massive outflows of African physicians and nurses are not the cause of either staffing or health problems on the continent, and that restricting their flows through bans on active recruitment by receiving countries or placing restrictions on leaving in source countries could inadvertently reduce global health welfare by preventing such migrant HHR from contributing to health gains (albeit primarily in high-income countries). The cross-sectional study uses data from 53 African countries and nine key receiving nations. Its conclusions are based on country regressions using data for the year 2000. Regarding staffing, the study finds inter alia that there is a consistent simple correlation between the number of physicians per capita practicing in their home country and abroad, indicating that “the negative effect of emigration on domestic stocks…is being counteracted by some positive effect… Either African governments are typically able to increase the production of physicians and nurses to replace those who have left [or] people enter the medical field in great numbers encouraged by the foreign success of their departed compatriots” (p.34). This may be the case, but it begs the question of a “perverse subsidy” in which African states continue to support the training of health workers who then gain employment in high-income countries. More importantly, Clemens’ analysis fails to account for vacancies in countries facing mass emigration, which might have been filled by emigrating HHR. It also does not address whether the remaining supply is adequate to need. The study performs a number of regression analyses using an emigration variable (the fraction of physicians born in a country living abroad; the fraction of nurses born in a country living abroad) and several health treatment and public health outcome measures (e.g. <5 MR, IMR, immunization rates, birth attendance rates, ART treatment rates and so on), controlling for per capita income, country size and language. None of the regressions show significant positive or negative correlations with any of the health outcomes. But to conclude from this that such emigration has no effect on health status in under-served countries, as Clemens does, is somewhat specious given that his health professional ‘fraction’ does not distinguish Africans trained as health workers who have left, from Africans who may have trained in the foreign country; and by the absence of trend data or disaggregation by economic and geographic stratifiers within countries. (M. Clemens, Do visas kill? The effects of African health professional migration, Center for Global Development, 2006)


their workload, but also because they are poorly paid, poorly equipped and have limited career opportunities. These conditions in turn lead to a downward spiral in which workers migrate, further crippling the system and placing greater strain on the remaining workers who themselves seek to migrate out of the poor working conditions (Dovlo, 2005c). The ultimate result is a catastrophic crisis in HHR throughout SSA. The situation in SSA in particular has become severe enough that the final report of the Joint Learning Initiative on Human Resources for Health – a two-year global initiative sponsored by a number of donors studying various aspects of human resources for health performance – has concluded the fate of global health and development in the 21st century lies in the management of the crisis in human resources for health (Joint Learning Initiative, 2004).

### 2.6 Historical trends in the movement of HRH: Clear net winners and losers

It is important to remind ourselves of two important facts. The first is that migration to “greener pastures”, particularly in the case of professionals with exportable skills, has always occurred and will continue to do so. The second is that that HHR deficiencies are due not only or simply to out-migration. These shortages exist because of poor HHR planning and funding. However, the sheer number and pace of nurses and doctors leaving key source countries is unquestionably damaging health care provision in these countries. Importing health workers has become a popular and – for the receiving country – inexpensive way of filling shortages. As countries rally to reduce important deficits in health human resources, migration patterns become apparent where some countries are ultimately net winners and others net losers. The global conveyor belt phenomenon is such that many source countries become destination countries. For instance, Ireland has been a major source of nurses for other English-speaking countries, particularly the United Kingdom, the United States and Saudi Arabia. Ireland in turn draws nurses from the Philippines and Eastern Europe. Canadian physicians move for better pay or practice opportunities to the United States and their spots are filled by South Africans. Positions left open in South Africa are filled by Cubans.

However, the “conveyor belt” or “carousel” does not come full circle. Not all source countries become receiving countries as well. The poorest countries in sub-Saharan Africa are unable to offer any pull to attract health professionals from other countries to emigrate. Some Caribbean countries, such as Guyana, Haiti and Suriname, face the same dilemma (Thomas, Hosein, & Yan, 2005). As a consequence, they are net losers. In short, while there is some HHR migration between rich countries, the dominant migratory pattern is from poor to rich and South to North, the poorest of the Southern countries experiencing very little in-migration. These already fragile health care systems, in the words of Chen and Boufford, are suffering “fatal flows” and “hemorrhaging of their health care staff” (Chen & Boufford, 2005).

### 2.7 The politicization of HHR exports

The intentional over-production and exportation of HHR is primarily for economic reasons but can also occur for politico-ideological reasons. Politics is part and parcel of globalization – and health human resources, as a subject of politicization, are not exempt. This is best exemplified by China and Cuba. China is heavily involved in Africa. Its economic interests in Africa have been manifested through increased joint ventures and investment (Taylor, 2005). Considering African countries as its allies, China has committed to contributing to the development of health human resources in Africa by establishing a fund to train African personnel in China and to send Chinese doctors for two-year periods into African communities (Thompson, 2005). In 2003 alone China deployed a total of 860 medical personnel in 35 teams to 34 African countries. Over the last 20-odd years, more than 15,000 Chinese doctors have been sent over, contributing to a sense of soft power “health diplomacy” (Thompson, 2005).

Cuba aims to further increase its number of doctors and train those from other countries. It was reported in February 2006 that 15,300 Venezuelans study medicine in their country with the help of Cuban professors. Over 3,400 Venezuelan medical students are studying medicine in Cuba at no cost (Ridenour, 2006) at the Latin American School of Medicine.
(ELAM), that trains people from poor families and operates from a former naval base outside Havana. There are also students from Africa, the Middle East and Asia (Ospina, 2006). In addition, some 20,000 Cuban doctors, dentists and nurses work in newly set-up medical centres in Venezuela’s poorest areas. Since the election of Venezuelan President Hugo Chavez Frias the two countries are clearly becoming strong allies and HHR is one area contributing to their alliance. But Cuba’s generosity is neither free nor particularly generous; Venezuela, in exchange, sends Cuba 90,000 barrels of oil a day. Nor are all Venezuelans happy with Cuba’s ‘humanitarianism’. Doctors and medical staff complain that their wages have not increased in half a decade, that Cuban health workers are taking their jobs, do not hold proper medical qualifications and are being used as political tools (BBC News Online, 2007).

Cuba has unveiled plans to have 150,000 new doctors trained throughout Latin America in the coming 10 years. In Fidel Castro’s words “Our countries send doctors. The empire sends soldiers” (Ridenour, 2006). Cuba’s strong HHR presence in South Africa, Pakistan, Zimbabwe and other countries is also arguably politically motivated.
There are various ways to frame or understand how globalization influences migration and ultimately health. First, HHR migration is itself a defining characteristic of globalization (i.e., increased people movement). Border barriers in rich countries for professional, technical and skilled immigrants are being lifted, in contrast to a dwindling acceptance rate of semi- or lesser skilled migrants (United Nations Population Fund (UNFPA), 2005). In this framing of the issue, HHR migration, as with all forms of migration, defines one aspect of globalization and the relationship between the two becomes tautological. To the extent that globalization (in the form of trade and investment liberalization) leads to increased per capita GDP, it can also improve the general health of a population. This is through reductions in poverty and commodity prices, while providing increased taxable revenues that could be invested in public health systems. All of these effects should reduce a source country’s push factors. However, most low-income economies, from which significant numbers of health workers are migrating, still lack the capital investment to develop their health systems (Bundred, Martineau, & Kitchiner, 2004). Evidence of per capita GDP trickle-down to reduce poverty is mixed at best.

Secondly, HHR migration is a result of other characteristics of globalization (i.e., increases in the factors that push people out of their countries). In this framing of the issue, it is necessary to examine the extent to which different aspects of globalization lead to increases in HHR migration. These might include:

- Deteriorating economic or broader social and environmental conditions (described below in Table 2) at least partly and substantively attributable inter alia to liberalization or other forms of global market integration.
- Conditionalities associated with grants, loans or debt relief from the international financial institutions (IFIs) – the International Monetary Funds (IMF), World Bank and

B. Globalization’s drivers of migration

1. Framing the drivers
region of development bank— that might limit governments’ abilities to pay adequate salaries or to provide incentives for HHR to remain.

• Eased migration restrictions on the flows of HHR from lower- to higher-income countries with perceived HHR deficits (explored in Section F below). In health labour markets, a person’s professional skills are a commodity to be bought and sold. The result is out-migration of those with internationally accredited qualifications such as physicians and nurses (Bundred et al., 2004).

• Specific policies to overproduce and export in order to achieve a better balance of payments via remittances, in part to create domestic conditions more favourable to foreign investors or lenders, or to improve debt-serving capacity.¹⁵

Thirdly, HHR migration can also be seen as a problem requiring global policy intervention (i.e. increased health inequities arising from lack of workers in poorer countries with high burdens of disease). In this framing of the issue, the empirical relationship of globalization drivers to HHR migration is less a concern than is the obligation or duty of all nations to manage flows in a way that does not compromise their legal or normative commitments under human rights treaties (e.g. the right to health) or development goals (notably the Millennium Development Goals).

2. Push and pull factors

Different individuals are motivated to move for different reasons; typically they are pushed out by conditions in their countries (Bundred et al., 2004) (Crush, 2002) and pulled in by those in recruiting countries. Because the motivations are very country specific, we have restricted ourselves in this article to summarize the main push and pull factors driving migration in the Table below. In addition to these factors, an unfortunate by-product of decades of increasing HHR migration is a well-developed culture of medical migration. Hagopian et al. explain how this culture has become firmly rooted in many source and receiving countries, and not only fails to discourage medical migration but actively encourages it. Medical school faculty are often role models for the benefits of migration, and they are proud of their students who successfully emigrate (Hagopian et al., 2005).

Breaking down the factors behind HHR migration is necessary to understand how the global HHR crisis may be resolved. When health workers and policymakers come together to devise possible solutions to the crisis, the fundamental question that inevitably arises is: Are push or pull factors more responsible? To control the spiralling crisis, it is necessary to deal with both types of factors. However, there is a strong, evidence-informed argument that push factors weigh in the heaviest. There are a number of reasons for this argument:

• Individuals typically cite push factors over pull factors as primary reasons for their intention or decision to migrate. For instance, a survey of the factors cited by university students in six southern African countries for wanting to migrate reveals cost of living, inability to find a relevant job, lack of prospects for professional advancement, low income, and personal and family security to be the most important (Crush, Pendleton, & Tevera, 2005).

• Even if there were no jobs in developed countries for health professionals in their fields, migration would still occur, albeit at a reduced rate. For most health workers, the pay, working, education and security conditions in developing countries force them to leave to better their lives and those of their children, even with the certain prospect that they will not be able to practice their profession in their country of adoption. This is another phenomenon commonly referred to as “brain wastage”, where skilled professionals take on lesser- or unskilled jobs, such as registered nurses working as care assistants in nursing homes. Otherwise said, doctors and nurses will leave their profession or their country if they see no other means by which to survive economically and secure the future of their children. HHR shortages in the key receiving countries are merely fuelling a fire that was already started.

¹⁵ Many of the other GKN papers will be providing data on some of these globalization phenomena, though not necessarily examining them in detail for their direct impact on HHR migration trends.
* Enormous differences in pay within and between countries are significant push and pull factors. Domestically low pay in the public sector in many poor countries pushes HHR into the private sector. The prospect of significant pay raises in rich countries acts as a considerable pull (Paton, 2006) (Thomas et al., 2005) (Hagopian et al., 2005). Few studies we came across calculated wage differentials in terms of purchasing power parity (PPP). Those that did showed smaller differences than one might expect. However, the perception of greater income-earning potential, together with access to a much wider range of affordable goods and services (including state-subsidized services), is generally found to be a considerable pull factor.\footnote{Matutinovic makes the point, citing the work of Homer-Dixon, that “the real motivator of migration is the gap between the potential migrants’ current level of satisfaction and the level they expect to attain in a new land. The larger the gap, the greater the incentive to migrate.” As the gap grows, which it has done substantially since the earlier wave of mass migrations in the late 19th and early 20th centuries, the motive to move along the wealth gradient intensifies (I. Matutinovic, “Mass migrations, income inequality and ecosystems health in the second wave of a globalization”, Ecological Economics, 59, 2006, pp. 199-203).}

* For the most part, source developing countries experience, in the first instance, severe HHR shortages themselves which drive health workers to leave by dint of poor working conditions, stress, lack of supplies and a generalized inability to practice effectively that for which they have been trained. While both source and receiving countries suffer HHR shortages, health systems in the great majority of source countries are appallingly overburdened in comparison to receiving countries.

* There is little evidence that significant numbers of doctors and nurses return to their source country to practice their profession, ostensibly because the conditions which led to their departure remain unchanged.

Consequently, greater emphasis must be placed on diminishing the push factors that force doctors and nurses to leave source countries in large numbers in the first place. HHR shortages in the key receiving countries are merely fuelling a fire that was already started. In this light, one word, admittedly over-simplifying the situation, describes the most important and yet most complicated step towards resolving the HHR migration crisis: retention. For retention efforts to take root and be truly successful, the fundamental labour, economic and social conditions that drive health workers to leave in the first place must be improved. This will require enormous adjustments in public health systems (e.g. improvements in procurement and safety procedures, in telemedicine, in the balance of skills of health workers, etc.) and increases in funds – funds which remittances alone cannot provide, even if in part they were structured to do so.

3. **Post-colonial and linguistic ties**

Post-colonial ties, where countries continue to share customs and curricula as well as language, are an important factor in choosing a destination country. These may be a reason, for instance, why Southern African or Caribbean nurses emigrate to the UK, Canada and Australia. A survey of preferred countries of destination of professionals in five Southern African countries, found 31.6 per cent desired to emigrate to North America, 27.5 per cent to the UK and 8.0 per cent to Australia/New Zealand. Another 28.8 per cent preferred to migrate to their wealthier neighbour, South Africa (Crush et al., 2005).

Many of the medical institutions in Southern Africa, for instance, prepare students to work with diseases and facilities that are found in Western medical settings, often using Western medical texts written in English. Therefore, many medical school degrees from Southern Africa, particularly those from English-speaking countries, have standards similar to Western degrees enabling them to practice abroad and, in a way, encouraging them to do so.

4. **Cross-border care of patients: a different form of globalization-led migration**

The flipside of importing health workers is exporting patients. A veritable industry of cross-border care takes place worldwide and is booming. Ten years ago, the medical tourism industry was hardly large enough to be noticed. Today more than 250,000 patients per year visit Singapore alone – nearly half of them from the Middle East. In 2005 approximately half a million foreign patients travelled to India for medical care, while
Table 2: **Summary of push and pull factors of HHR migration** 17

<table>
<thead>
<tr>
<th>Push Factors</th>
<th>Pull Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Security</strong></td>
<td></td>
</tr>
<tr>
<td>• No jobs available</td>
<td>• Jobs available;</td>
</tr>
<tr>
<td>• Lack of promotions</td>
<td>• Colleagues, friends and recruiters telling them about opportunities</td>
</tr>
<tr>
<td>• Risk of losing jobs due to lack of funds</td>
<td>• Fairness in granting promotions</td>
</tr>
<tr>
<td><strong>Working Conditions</strong></td>
<td></td>
</tr>
<tr>
<td>• Deteriorating work environment/facilities</td>
<td>• Satisfaction of practicing medicine and nursing as trained and capable of doing</td>
</tr>
<tr>
<td>• Inadequate medicine and equipment</td>
<td>• Reasonable workload and conditions of work</td>
</tr>
<tr>
<td>• Inability to treat patients appropriately</td>
<td></td>
</tr>
<tr>
<td>• For nurses, unhappiness with prevalent social attitudes towards the profession</td>
<td></td>
</tr>
<tr>
<td>• Significant stress, overtime and generally poor conditions of service resulting in fatigue and burn-out</td>
<td></td>
</tr>
<tr>
<td>• Impossible patient-health care provider ratios making it difficult to give quality care</td>
<td></td>
</tr>
<tr>
<td><strong>Economic Considerations</strong></td>
<td></td>
</tr>
<tr>
<td>• Disarray in severely economically depressed countries</td>
<td>• Higher pay (and opportunities for remittances)</td>
</tr>
<tr>
<td>• Low salaries</td>
<td>• Reasonable remuneration – able to save money</td>
</tr>
<tr>
<td>• Inability to accrue savings</td>
<td>• Recruiters actively sourcing workers internationally with promise of high income</td>
</tr>
<tr>
<td>• Non-payment of salaries, housing allowance, pension</td>
<td></td>
</tr>
<tr>
<td><strong>Political Considerations</strong></td>
<td>• OECD countries wealthy, stable and democratic</td>
</tr>
<tr>
<td>• Political, racial, ethnic upheaval</td>
<td>• Absence of corruption</td>
</tr>
<tr>
<td>• Gender discrimination</td>
<td></td>
</tr>
<tr>
<td>• Government training health workers for international export</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Security</strong></td>
<td>• Safe country</td>
</tr>
<tr>
<td>• Criminality</td>
<td>• Safe working environment</td>
</tr>
<tr>
<td>• Gender-based violence</td>
<td>• Appropriate medical equipment to prevent HIV infection</td>
</tr>
<tr>
<td>• Exposure to HIV – risk of infection through treatment of patients</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of Life</strong></td>
<td>• Multi-ethnic and tolerant of diversity</td>
</tr>
<tr>
<td>• Poor accommodation</td>
<td>• Good quality of life</td>
</tr>
<tr>
<td>• Lack of transport to go to work</td>
<td></td>
</tr>
<tr>
<td>• Inability to live a decent life</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>• Greater opportunities for children – good education and ability for them to earn a decent living</td>
</tr>
<tr>
<td>• Diminishing quality of education for children</td>
<td></td>
</tr>
</tbody>
</table>

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in 2002 the number was only 150,000 (Hutchinson, 2005) (Rosenmoller, McKee, & Baeten, 2006).

The “medical tourism” industry is due to a mixture of universal motives. Patients faced with significant waiting lists for medical care or high costs of treatment seek care in other countries where treatment is readily available and/or reasonably priced. For hospitals and clinics in less developed countries receiving these patients, their treatment brings in important revenue and desirable foreign currency (e.g. US dollars, British pounds or euros). According to one study, an individual can wait up to six months in the UK for a heart bypass which would cost the NHS £15,000-£19,000, while in India there is a large pool of well-qualified doctors ready to perform the surgery at a cost of £4,800.

India is considered the leading country promoting medical tourism and it is estimated that this form of tourism is growing by 20 per cent each year. India’s National Health Policy declares that treatment of foreign patients is legally an “export” and deemed “eligible for all fiscal incentives extended to export earnings”. Government and private sector studies in India estimate that medical tourism could bring between US$1 billion and $2 billion into the country by 2012. The country is also moving into a new area of medical outsourcing where subcontractors provide services to overburdened medical care systems in Western countries (Macintosh, 2004).

Thailand has also embraced this industry wholeheartedly. The Thai Consulate General in Canada, for example, advertises medical tourism in Thailand for Canadians, listing prices in US dollars for various surgeries on its website. In 2004, 600,000 foreign patients sought treatment in Thailand. This figure is expected to grow by 66 per cent by the end of 2006. According to the country’s ambitious national health plan of action, Thailand is set to become a medical hub of excellence by the year 2020 and anticipates the number of foreign patients treated in the country will increase to 10 million by that year. At the same time, Thailand’s Ministry of Health notes that this plan is already causing a brain drain from the public sector, on which 90 per cent of the Thai population depends, to the private sector. Emphasis will be placed on managing this internal brain drain, although with few specifications as to how. It is nonetheless anticipated that fewer health workers will seek to leave the country to work abroad.19 (See Box 1 in Section F below.)

Some analysts believe this “unorthodox” cross-border treatment of patients could be the necessary answer to unethical waiting lists for patients and structural and temporary shortages in domestic HHR (Tjadens, 2002). Critics of cross-border care point to a number of major flaws. First, patients receiving treatment abroad may be receiving lower quality care, putting their health at risk without knowing it. Patients may be treated by HHR in a language they do not understand and are unable to ask for or understand information important to their health. Secondly, cross-border health care discriminates in favour of wealthy patients able to pay for services, rendering access to health care increasingly unequal. Thirdly, in countries with insufficient HHR to service the needs of its own population, promoting medical tourism discriminates with insufficient HHR to service the needs of its own population, promoting medical tourism discriminates in favour of wealthy foreigners. Finally, the fact that cross-border care typically (but not always) takes place in private clinics means that revenues are not ploughed back into the public health care system but rather into private bank accounts.

A judgment in favour or against cross-border care is not as clear-cut as it may seem. There is a continuum of costs and benefits to countries involved. Cross-border health care supply that is more often organized as a private system (with private providers, private insurance or co-payments and private facilities) benefits those who can afford it. However, from a standpoint of health equity, public systems allow access to services, even though they may be imperfect, on the basis of need rather than ability to pay, with costs being met through cross-subsidization.20

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20 We refer here to the well-known “inverse care law” by which many publicly funded and/or administered services often tend to be disproportionately used by wealthier individuals with less need. We do not regard this as an intractable failure of public provision per se nor as an argument favouring increased private provision, but as a malleable shortcoming of public administration. This is a position shared by many analysts and is supported by the fact that a number of countries have managed to ensure equitable access by poorer groups to publicly supplied or administered services.
The policy decision facing governments is whether to increase health equity in access to care for all persons, or simply to increase aggregate access regardless of who benefits. This decision will drive their decisions with respect to cross-border supply of health care services. To the extent that it can be effectively managed to ensure equitable access and HHR flows, the system evolving in the European Union could provide a model more globally, but only if a large number of countries agree to some form of supranational regulatory framework for such flows premised on increasing global, and not simply national, equity in health services access. For the time being, developed countries will continue to draw on cross-border care as a backup to their own health care systems, such as witnessed by the increase in patient flows from the US to India, Malaysia, Thailand, and other countries, which is generally seen as inevitable (Rai, 2006). Insurance companies, in particular, may increasingly look to out-of-country treatment as lower cost solutions.

21 We leave aside the negative environmental health externalities of increased air or other fossil-fuel generated travel associated with medical tourism.
C. Impacts on health via health systems and HHR deficiencies

1. Impact on source country health systems

Shortages in HHR in poor countries can be devastating to health care and thus equity in health outcomes. The most obvious impact is the dramatic worsening of nurse-patient and physician-patient ratios (Elgado-Lorenzo, 2005) which in turn affects the sustainability of health systems training and delivery (United Nations Population Fund (UNFPA), 2005). The following are a sample of impacts identified by various analysts (Gerein et al., 2006a) (Aluwihare, 2005) (Bach, 2006):

- Reduced number of beds for treatment of patients. As a result, some may be refused treatment, treatment may be delayed or patients may be required to leave hospitals sooner than prescribed following treatment.
- Reduced number of facilities (staffed and equipped) to offer care. The reduced number of facilities is significantly related to quality of care and (maternal) mortality rates. Maternal care is most conspicuously affected and maternal mortality rates increase dramatically as a consequence of declines in HHR (see Figure 3).
- Absence of equipment leads specialists to refuse to work in poorly equipped environments and to look for work elsewhere. As one dean of a South African university explains, “No radiologist at the top of his career would consider coming to a department that does not have the necessary imaging equipment.” (Paton, 2006)
- Reduced 24-hour emergency care.
- Preference of physicians and nurses to work in a better paid and equipped private sector (for instance, 75 per cent of South African specialists work in the private sector). This means that the poorer populations which are the majority in the SSA and Caribbean countries have lower quality care and associated higher mortality rates. As one example, since the public sector has a poorer quality of care and offers less access to specialist care, maternal
mortality rates in the large public sector are higher than in the smaller private sector.

- Significant shortages in certain specialties, such as anaesthesiology, radiology and pathology. Physicians with such training are in high demand in richer countries and are already few in numbers in developing source countries. As physicians with specialized training are even more costly to train, their out-migration deals a severe blow to the source country.
- Shortages in HHR staff places stress on existing staff, leading to increased absenteeism or burnout.
- Levels of stress, fatigue and emotional exhaustion compromise both quality and safety of care.
- Shortages of appropriately trained staff mean lesser trained health workers take on duties beyond their skills which entails reduced quality of care. Examples of compromised care exist in Burkina Faso, Malawi, Mozambique, Tanzania and Zambia where midwives and nurses provide emergency obstetric care and caesarean deliveries in remote rural areas where doctors are absent.
- The emigration of HHR from areas with high HIV/AIDS prevalence rates serves to further destabilize health systems already crippled by staff losses and absenteeism resulting from AIDS-related morbidity and mortality (United Nations Population Fund (UNFPA), 2005).
- Shortages of HHR mean increased patient waiting time, reduced time for the patient and poorer infection control.
- Loss of teaching staff has knock-on effects. Quality is affected if teaching and clinical staffs are scarce.
- When high-quality teachers and physicians leave a country, sometimes no one is left to continue their teaching and medical duties. If junior staff is unable to undertake the duties, they are essentially abandoned. Junior staff members then find themselves unable to gain enhanced skills that experienced teachers can transmit and may become unemployed or under-employed as a result. As an example, a regional spinal injuries unit in South Africa serving a population of three million was closed in 2004 when two key doctors were recruited to open a similar unit in a Canadian

**Figure 1: Health workers save lives!**

city with a population of 700,000 (Bundred et al., 2004).

- Undergraduate and postgraduate medical education suffers as a result of migration, affecting the next generation of health human resources in some source countries. For example, it has been reported that in South Africa, as teaching hospitals fail to attract or retain good instructors, the quality of medical graduates produced is dropping (Paton, 2006).

- Loss of public health researchers. Specialized doctors who emigrate are often among the very few active or published researchers in developing source countries. Emigration of such individuals stifles innovation and invention in dealing with persistent local public health problems, e.g., HIV/AIDS, tuberculosis and malaria (Kirigia, Gbary, Muthuri, Nyoni, & Seddoh, 2006).

- Loss of educated health professional pools through migration has broader impacts. Physicians and their families constitute an educated sector of the population of a country and the migration of physicians depletes this pool. The spouse is also often a health care professional and children are often steered into the health profession. As such, the recruitment of one doctor overseas potentially depletes a much larger educated pool of health professionals.

2. Impact on receiving country health systems

For countries receiving foreign-trained health workers, the vacant posts they fill mean reduced waiting times for treatment of patients and overall less expenditure (foregone training costs). Where physicians and nurses fill posts in remote underserved areas, it can also mean patients have access to health care nearer to home which in some instances means life instead of death. More specifically, foreign-trained health workers (Bach, 2003):

- Are often employed in posts that are hard to fill either in terms of specialties or in less desirable rural or inner city areas (Dovlo & Martineau, 2004).
- Are a quick and inexpensive way to resolve staff shortages resulting from poor domestic HHR planning and under-investment in domestic HHR training. Huge savings in training and education are made from this form of free riding. In the US, for example, hospitals hire approximately 5,000 foreign medical graduates each year to fill first-year residency positions. At the same time, US medical schools turn away thousands of US applicants with high grade-point averages (Mullan, 2000).
- Fill substantial portions of mid and lower level posts in hospitals. For instance, in the UK, foreign medical graduates trained outside the European Economic Area make up 65 per cent of the basic staff grades (Dovlo et al., 2004).
- Ensure linguistic and cultural diversity of health workers making it easier for other migrants to access care in their mother tongue and in a culturally appropriate manner.

3. Impact on migrants’ health

While seeking a better quality of life is a major reason for health professionals to migrate from poor to rich countries, trends observed in prominent receiving countries such as Canada, Australia, the US and UK suggest that migration can lead to deterioration in émigré health status. While generally in better health than residents in their countries of destination upon arrival, newcomers are apt to lose this advantage after over a decade of residence in a phenomenon known as the loss of the healthy immigrant effect (Dunn & Dyck, 2000) (Ng, Russell, Gendron, & Berthelot, 2005) (Spitzer, 2005). This decline is not experienced equally across all social categories. Non-European immigrants and women in particular are most likely to experience worsening health status (Vissandjée, Desmeules, Zheynuan, Abdool, & Kazanjian, 2004). Importantly the epidemiological data suggests that social determinants rather than negative personal health behaviours, such as smoking, alcohol consumption and physical inactivity, appear more likely to explain the effect (Dunn et al., 2000) (Ng et al., 2005). While this is a troubling aspect of globalization and global migration more generally, it also applies in specific instances to HHR émigrés, notably those who find themselves unable to work as licensed professionals or who experience de-skilling or insecurity in their work in the new country.
Immigrant health workers often contend with the consequences wrought by lack of recognition of foreign credentials that, along with professional gatekeeping, contribute to a downward spiral characterized by loss of socioeconomic status and de-skilling (Alcuitas, Alcuitas-Imperial, Diocon, & Ordinario, 1997) (Bauder, 2003) (Diocon, C. Sayo, & et al., 2001) (Spitzer, 2006). As a result they are often compelled to adapt to working in lower status positions despite their educational and professional backgrounds. Concomitantly employers are often attracted to these employees precisely because they are well-educated professionals (Lindio-McGovern, 1997) (Hilfinger Messias, 2001) (Spitzer, 2006). Furthermore, migrant workers are often situated in the least remunerative and lowest status positions in health care systems, such as home health care, often with the poorest of clientele (Chang, 2000). Epidemiological research suggests that the dynamics of downward social mobility has significant negative impact on health (Krieger, Chen, & Selby, 2001); thus, de-skilling, loss of professional status and relegation to low wage-low status jobs are all implicated in producing poor health outcomes among migrants. Once relegated to low-wage employment, immigrant health workers are also vulnerable to the effects of poverty on health whose relationship to poor health outcomes is well known, and further complicated by gender, ethnicity, sexuality, work and migration status (Borg, Kristensen, & Burr, 2000) (National Council of Welfare, 2001) (Raphael, 2000) (Ross, Scott, & Smith, 2000).

However, the negative impacts on migrants’ health are not consistent across the board. For instance, a study of Indian nurses in the Arabian Gulf describes how the opportunity to migrate “not only means better status and a better economic situation, it is now perceived as a way to secure more autonomy or agency, as women, than they can get in their own country” (Percot, 2006). The study further advances that, after two generations of nurse migration, the status of nurses has improved in India since “a nursing diploma is increasingly considered to be a passport that opens the world not only to the nurse herself, but also to her relatives. Families encourage this female migration, since it is now consciously regarded as a privileged opportunity to increase social mobility” (Percot, 2006).

4. **Impact on the health of migrants’ families**

The fracturing of families and dispersal of kin networks across the globe that has accompanied the migration of health professionals affects the availability of social support and of health care personnel, both of which have an impact on health from an individual and social perspective. Their absence represents an erosion of the local commons – the community of care, social solidarity, shared trust, and face-to-face relationships (Isaksen & Sambasivan, 2007). In the Philippines, for instance, female transnational workers are the heroes of the Philippine economy, bringing in much needed foreign currency through remittances (Parrenas, 2001b) (Parrenas, 2001a). However, despite their economic contributions, they are not exempted from expectations to fulfill primary gender roles as mothers and nurturers. In their absence, familial care-giving roles are generally taken up by older daughters or other female kin. Children may resent the absence of mothers despite their intensive efforts to fulfil their roles and remain in contact from a distance. Research on the impact of the emigration of female health workers from the Southern Indian state of Kerala noted that children may feel stigmatized and emotionally distressed despite receiving material benefits of residing in a transnational family (Isaksen et al., 2007). Some instances have been reported in which women are compelled to leave behind newborn babies so they can return to their nursing jobs in Dubai (Isaksen et al., 2007).
D. Impacts on health via wealth and knowledge transfers

It has been suggested in many papers on migration that source countries derive benefits from migrants by way of wealth and knowledge transfers. We explain in this section that, while such benefits exist, their impact on source country health systems is indirect and likely to be incommensurate to the losses of source countries. Empirically, however, there is scant literature on the uses and impacts of remittances on household and community health care in migrant-sending countries, indicating an area where more study would be helpful.

Many migrants typically send a portion of their earnings home in the form of remittances which represent an increasingly significant proportion of household income in some countries (United Nations Population Fund (UNFPA), 2005). In Ghana, for instance, remittances account for the third largest inflow of foreign funds (Martineau, Decker, & Bundred, 2002b). Developing countries in particular benefit from remittances from their expatriates – both permanent and temporary – enabling them to improve their balance of payments. Global remittance flows in the aggregate are officially estimated to average over US$100 billion, 90 per cent of which flow into developing countries, 40 per cent to Latin America and the Caribbean from the United States alone (Robinson, 2007a). A study of Tongan and Samoan migrants working in Australia concluded that nurses are more likely to be remitters and remit larger amounts than other migrants. This propensity of nurses is consistent with other studies that show women migrants remit more frequently and generously than men and this is likely due to women being more responsive to perceived needs of family (Connell & Brown, 2006).

In 2001, amid the rising concern of HHR migration from developing countries, the World Bank suggested that developing countries might benefit specifically by sending their health personnel abroad temporarily, as it would increase wealth transfers to these countries (World Bank, 2001). Analysts then and now who espouse internationalist labour market views advance that increases in remittances can reduce poverty,
improve social conditions and ultimately become an important source of foreign exchange for developing countries (United Nations Population Fund (UNFPA), 2005). Some argue that even consumer use of remittances stimulates economic development, particularly when households spend their remittance income on nationally produced good and services, which then have multiplier effects in the economy (Ouaked, 2002).

There are four empirical limitations to these assumptions. First, remittances are a personal form of transfer, consisting principally of small altruistic funds sent monthly to family members for private consumption (e.g. school or health care costs, food or shelter); or small-scale investment (e.g. farm animals, paying off debts, purchasing land or a house). Harnessing these small-scale personal transfers for broader development purposes distorts their nature. Secondly, more extensive forms of remittances serving as a source of savings or investment are less common than often assumed. There is only recent African evidence suggesting that emigrants are slowly reinvesting some of their earnings back into their countries (Collier, Hoeffler, & Pattillo, 2004). In the meantime, the numbers of professionals leaving have continued to increase. Similarly, and contrary to a widely held perception that Indian physician emigrants send considerable amounts of money home and help India with hard-currency accumulation, a recent study found that such emigrants, coming as they do from generally wealthier families, do not actually send a great deal of money home (Mullan, 2006). This view is repeated in other studies of physician emigrants (Astor et al., 2005). Thirdly, Maurice Schiff of the World Bank contends in a recent publication representing that institution’s most detailed report on migration and remittances that “the impact of the brain drain on welfare and growth is likely to be significantly smaller, and the likelihood of a negative impact on welfare and growth significantly greater, then reported in the literature” (World Bank Report, 2005).

This raises a fourth, and more normative consideration. To enhance the effectiveness of remittances for development, a number of analysts are advocating a change in their character from private goods to semi-public goods through a larger intermediating role for banks and non-bank financial institutions in the remittance marketplace. These analysts anticipate a heightened positive development impact of remittance receipts in developing countries would result from such change (Robinson, 2007b). Doubts remain about the value of remittances for economic development because of uncertainties about how they are utilized within source communities (Bach, 2006). While there are suggestions of tithing remittance taxes for such purposes, this could reduce their flow. Moreover, as other migration analysts contend, remittances are essentially poor peoples’ money that international agencies should leave alone, and that any expectation that they would compensate in some way for the loss of HHR is mistaken.22

This is an important debate, but it still leaves unanswered two questions of concern to this particular paper. Is there sufficient evidence to contend that, in some fashion, remittances can: a) compensate for the loss of a country’s investment in educating its health professionals; and/or, b) impact positively on their health systems?

1. Are financial remittances substantial enough to compensate for losses?

It is notoriously difficult to estimate the scale of remittances because of the often informal manner in which they are returned. In spite of this, a number of analysts have made very convincing arguments that, while financial remittances provide benefits to source countries, they are not in any quantity commensurate with the number of migrants and the losses incurred by the source country as a result of out-migration of their health professionals (Pang, Lansang, & Haines, 2002). Generalizing, Aluwihare believes the “cost of what is sent back is much less than the financial effects to the donor country of having lost its physicians” (Aluwihare, 2005). Other research further suggests that remittances to SSA countries, the countries hardest hit by the HHR crisis, are comparatively low. As suggested in Table 3, only one SSA country (Nigeria) received significant remittances expressed as a percentage of its GDP.

Research also has shown that remittances have a limited time-value. Anecdotal evidence from Ghana suggests that the longer health professional migrants have been away from Ghana, the less they remit (Mensah et al., 2005). Evidence from the US also shows that

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foreign workers remit less the longer they remain abroad – each year reduces the likelihood of remitting by 3 per cent (Ouaked, 2002). A study of Tongan and Samoan nurses in Australia found there was a steep decline in remittance propensity after a five to 10-year absence (Connell et al., 2006). Remittances reduce in both frequency and magnitude when family members join the migrant in their adopted country (Ouaked, 2002). There are other factors inhibiting remittances. The transfer costs (charge of sending money, change rate) can absorb up to 20 per cent of the total amount. If people remitting no longer have children in the country from which they migrate, they are less likely to remit (Ouaked, 2002). It has also been reported that higher skilled workers (as health workers would be categorized) remit less than their unskilled compatriots despite the fact that they earn more. This is in part because they are more likely to be abroad with their families and quicker to integrate into host countries, which may weaken or break ties with their countries of origin (Martin, 2003). It also happens that older siblings remit to their younger siblings so that they can attend school overseas in developed countries – remittances, thereby, being reinvested into developed countries. Finally, remitters stop remitting when there is fear of financial instability (Ouaked, 2002).

1.1 Pinning figures on real financial losses to source countries

From the reverse side of the equation, there are a number of analysts who have tried, using different methodologies, to estimate the financial losses incurred by countries through the emigration of health workers

Table 3: Twenty developing countries receiving the highest amount of remittances from nationals working abroad, 1999

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Amount of remittances (millions of $US)</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>11.097</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>Philippines</td>
<td>7.016</td>
<td>8.9</td>
</tr>
<tr>
<td>3</td>
<td>Mexico</td>
<td>6.649</td>
<td>1.7</td>
</tr>
<tr>
<td>4</td>
<td>Turkey</td>
<td>4.529</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>Egypt</td>
<td>3.196</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>Morocco</td>
<td>1.918</td>
<td>5.5</td>
</tr>
<tr>
<td>7</td>
<td>Bangladesh</td>
<td>1.803</td>
<td>4.1</td>
</tr>
<tr>
<td>8</td>
<td>Pakistan</td>
<td>1.707</td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td>Dominican Republic</td>
<td>1.613</td>
<td>11.0</td>
</tr>
<tr>
<td>10</td>
<td>Thailand</td>
<td>1.460</td>
<td>1.1</td>
</tr>
<tr>
<td>11</td>
<td>Jordan</td>
<td>1.460</td>
<td>21.2</td>
</tr>
<tr>
<td>12</td>
<td>El Salvador</td>
<td>1.379</td>
<td>12.3</td>
</tr>
<tr>
<td>13</td>
<td>Nigeria</td>
<td>1.292</td>
<td>3.5</td>
</tr>
<tr>
<td>14</td>
<td>Yemen</td>
<td>1.202</td>
<td>24.5</td>
</tr>
<tr>
<td>15</td>
<td>Brazil</td>
<td>1.192</td>
<td>0.2</td>
</tr>
<tr>
<td>16</td>
<td>Indonesia</td>
<td>1.109</td>
<td>0.8</td>
</tr>
<tr>
<td>17</td>
<td>Indonesia</td>
<td>1.109</td>
<td>0.8</td>
</tr>
<tr>
<td>18</td>
<td>Ecuador</td>
<td>1.084</td>
<td>5.8</td>
</tr>
<tr>
<td>19</td>
<td>Sri Lanka</td>
<td>1.056</td>
<td>6.9</td>
</tr>
<tr>
<td>20</td>
<td>Tunisia</td>
<td>761</td>
<td>4.0</td>
</tr>
</tbody>
</table>

raised and trained in these countries. We provide the general findings of these studies and do not assess the methodologies used in the costing exercises.

In a recent publication, Kirigia et al. share their findings on the cost of health professional brain drain in Kenya. They compounded the cost of educating a medical doctor and nurse (from primary schooling to completed university training and credentialing) over the period between the average age of emigration (30 years) and the age of retirement (62 years) in recipient countries. The researchers then estimated that the total cost of educating a single medical doctor in Kenya is US$65,997. For every doctor who emigrates, the country loses about US$517,931 worth of returns from investment. The total cost of educating one nurse from primary school to college is US$43,180; and for every nurse who emigrates, a country loses about US$338,868 worth of returns from investment (Kirigia et al., 2006).

Applying much more simplistic survey methods, Chanda estimates that South Africa lost an estimated ZAR67.8 billion (US$9 billion) in human capital investment in the health sector from the emigration of health workers in the last decade (Chanda, 2002). According to 1999/2000 PAHO estimates, in the Caribbean region the public health sector covering training costs for nurses lost US$16.7 million due to the out-migration of nurses. It is estimated that it would take 35 years of remittances from a single nurse for the public investment in his/her education to be repaid (Schmid, 2006).

Another way to analyze losses is to look at what it would cost to rebuild a health workforce adequate enough to serve a population. A simulation exercise using Ethiopia as an example worked out the cost of doubling the health workforce over a period of five years, increasing the number of nurses from 8,572 to 17,144 and doctors from 1,888 to 3,776. For simplicity, it was assumed that salaries remained constant over the five years. It found that the health budget would have to increase 5.2 per cent per year to cover the basic salary for the extra work force. It should be noted that this sum would be the absolute bare minimum investment to rebuild the numbers needed in the health workforce and does not include improvements in pay, working conditions, facilities, etc. that led to failed retention in the first place. In other words, increased investment in health care in Ethiopia would have to be well above 5.2 per cent per year (Serneels, Lindelow, Garcia-Montalvo, & Barr, 2005a). This is not an impossible task; Ethiopia’s GDP averaged 7 per cent growth over 2002/3 to 2004/5, and health spending as a percent of overall public expenditures rose from 5.2 per cent to 8.2 per cent (still significantly below the 15 per cent target to which African nations agreed as part of the Abuja Accord, but moving in the right direction). At the same time, the scale of new investments required will depend partly on a large grant from the Global Fund for AIDS, Tuberculosis and Malaria (US$55 million over two years). Questions of domestic sustainability and commitment to health spending persist (Bijlmakers, 2003).

Numerous source countries desperate for HHR hire physicians and nurses from other countries on contract bases, such as the case of Jamaica (Martin, 2003), South Africa, Zimbabwe and Ghana hiring Cuban doctors. These replacement expatriate professionals come at a high cost. It was estimated in 1996 that African countries spent nearly $4 billion annually to replace professionals lost through migration with expatriates from the West and other countries, a figure which then represented nearly 35 per cent of Africa’s total overseas development assistance (Oyowe, 2005). In Ghana, as elsewhere, the employment of foreign doctors (who often need support from interpreters) is widely seen as a drain on resources that could be used to train and retain Ghanaian health professionals (Eastwood et al., 2005).

On the other side of the coin is the great savings imported health professionals represent in receiving countries. In the UK, for example, each qualifying doctor costs £200,000 to £250,000 (US$370,000 to $460,000) and takes five to six years to train. So every migrating doctor arriving in the UK is in effect importing this sum or, in economic terms, appropriating human capital at zero cost, for the use of the UK’s health services (assuming no public costs for additional training or registration). Furthermore, the capital is immediate rather than in five or six years’ time (Eastwood et al., 2005).

1.2 Loss of HHR means much more than lost investment and income

The international migration of a physician or a nurse in developing countries represents much more than a financial loss in terms of academic training. Phy-
sicians and their families are a resource for which a state has paid all or a significant portion of the cost not just of the medical education, but also of school education and infrastructure. The family also is a tax-paying and employment-generating family. All these are lost when physicians migrate (Aluwihare, 2005). When health workers migrate, it means not just the loss of professionals, but the loss of a middle class… a class which pays taxes, is responsible for hiring others, and whose children would also likely be productive professionals in these countries (Kapur & McHale, 2005b). As Ouaked explains, in summarizing the results of an expert roundtable on high-skilled migration, “[b]y reducing human capital in source countries, high-skilled emigration may hinder economic growth. As all economies become more reliant on knowledge, the loss of the best-trained workers poses serious threats to national productivity and output” (Ouaked, 2002).

2. Do remittances from HHR migrants and other financial schemes help fund health in source countries?

Not only do remittances fail in any way to compensate for the losses sustained by source countries, they also do not necessarily fund (at least directly) their health systems (Martineau et al., 2002b). Because remittances typically represent private welfare gains, they do very little to offset the public health investment losses incurred by source countries upon the emigration of health care professionals (Stilwell et al., 2003). Extensive literature searches and discussions with analysts closely following health worker migration and shortages have led us to only one study on remittances specifically related to the health sector. The study, now 20 years old, suggests that the volume of remittances made by Filipino physicians practicing overseas was sufficient to compensate for the associated economic losses of emigration (Goldfarb & Havrylyshyn, 1984). The study, however, was far from conclusive, weakened by data limitations and formulated on questionable assumptions.

While the evidence of any direct benefit from remittances to health systems is unconvincing, indirectly remittances can benefit home-country health systems by (a) improving child health through better nutrition, sanitation and health care (Hildebrandt & McKenzie, 2005) (Frank & Hummer, 2002) (Frank, 2005); and (b) helping to finance out-of-pocket health care spending. Both effects can improve financing for, or reduce unnecessary use of, home-country health systems (whether public or private), in theory making services more available for others in need. We are unaware, at this time, of studies that examine the scale of these improvements. That our cited evidence of positive effects in infant health came from studies of Mexican migrant labourers suggests that any scaling up of private health benefits to the overall health system is dubious. If it were true, the health care system in Mexico, the country which receives the second largest share of remittances worldwide (US$6.5 billion per annum) would have a solid public health care system, which is far from the reality. While remittances to Mexico grew by 92 per cent from 2000 to 2003 (Hernandez-Coss, 2005), per capita public spending on health grew by only 16 per cent and per capita total health spending (including both public and private) by 17 per cent over the same period. At least in Mexico’s case, remittances are not leading to even closely proportional increases in health spending, whether public or private.

By contrast, easing the flow of remittances could increase an HHR return flow. A study of Ghanaian health care professionals in the UK found that many migrants remit funds with the express plan to return and finally settle back in Ghana. It concludes that allowing health workers to remit and invest in the country of origin is “likely to be effective in reversing the spiral of migration” (Mensah et al., 2005). This may depend, however, on the extent to which immigrant health professionals establish themselves in the receiving country, which can also depend on their age and family status.

A few examples of countries establishing policies to stimulate remittances exist. India and Pakistan provide higher interest rates to attract remittances. Some countries reportedly try to use hometown associations (HTAs) to collect remittances and contribute them to the economic development of their communities. The results have been mixed. For instance, HTAs have

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supported the development of infrastructures, schools and health centres but the experience largely has been that these communities do not necessarily have the resources to maintain what has been built through the contributions of expatriates (Ouaked, 2002). Mexico reportedly was more successful. When elected in 2000, Mexican President Vicente Fox called Mexican migrants in the US “heroes” (a change from their more common perception as “traitors”) and declared that their remittances and return were vital to Mexico’s economy. The key link between the Mexican government and Mexican migrants in the US has been the 600-plus HTAs formed voluntarily by migrants in the US from particular villages. These associations evolved from operating beauty pageants and soccer matches to collecting funds to improve the infrastructure in the migrants’ villages of origin (Martin, 2003). These will eventually also face the problem of sustainability, and we refer back to our earlier data noting that combined Mexican public and private health spending has failed to grow anywhere near the rate of remittances.

Depending on expatriates to be altruistic and support their community equally or ahead of their own family members is risky and uncertain. As explained above, the remittances are also bound to decline over the years as migrants remain abroad. So, while this idea of collecting community funds for health through international migrant remittances is intuitively appealing, it needs to be boosted and supported by other funds or innovative strategies. Remitters could be assured, for instance, that their contributions will be matched by contributions by source country government. Remitters could also be given tax breaks or credits by receiving or source countries. They could also be recompensed for the costs incurred in sending money over. This would need formal channels to be arranged (i.e. through bilateral intergovernmental arrangements or through an agency mechanism established through such organizations as the WHO or the IOM).

In summary, it is difficult to assess how and to what extent remittances from migrant health workers benefit the health systems of source countries primarily because of lack of relevant data. Nonetheless, a few known facts question the future potential of such remittances to do so:

- No country has set-up a centralized filtering system whereby a portion of remittances received from migrant health workers, or any other workers for that matter, might be taxed for re-investment into its health care system. While the WHO has suggested devising a system in which remittances could be channelled directly into the health system as a form of compensation, this would likely be riddled with difficulties, not the least of which would be to account for remittances since large amounts take place through informal channels (United Nations Population Fund (UNFPA), 2005). Strong incentives schemes would also have to be devised to convince individuals to remit part of their earnings to the state rather than directly to their families (United Nations Population Fund (UNFPA), 2005).
- Such schemes would also require policy recognition that remittances are personal capital flows. Over-regulating and channeling the use of these capital flows in source countries and tying them to decisions regarding official development assistance in donor countries would likely affect their spontaneous flow and drive them underground or redirect their use. Tax-aided policies promoting public good contributions from the Diaspora (quite separate from personal remittances) could overcome this problem.

3. The role of Diasporas in alleviating the HHR crisis

Diasporas are often touted as key in resolving the HHR crisis but there is no convincing evidence or even argument for the means by which they would do so. The general expectation is that Diasporas will provide relief through financial remittances, knowledge transfers and as returnees (United Nations Population Fund (UNFPA), 2005). As explained above, financial remittances – while important for augmenting consumption – cannot address the development (including health care system) problems in developing countries which led to migration in the first place (Kapur & McHale, 2005a). It is similarly too optimistic to believe that skills and knowledge are transferred back to source countries. Typically such knowledge transfer would occur if the migrant returns temporarily or
permanently to work in the health care in the source country. But two questions should be probed: (1) Are migrants returning? (2) Are they contributing new skills and knowledge?

### 3.1 Return flows

As with many issues in this crisis of shortage of health human resources, there is an absence of data from which we can draw firm conclusions. Very few studies have been conducted to determine rates of return of migrant health professionals, but most analysts fail to see returns to any substantial degree. Obviously, if “brain recirculation” were happening in sufficient numbers, there would not be an HHR crisis associated with migration. The principal reason why substantial return migration is not occurring is because the conditions which drove physicians and nurses out of their countries in the first place have not improved and in some cases have even worsened. For instance, there must be jobs available with suitable pay. As noted in one report with reference to Ghana, if 1,500 doctors working abroad were to return, the government would probably only be able to find or financially support jobs for about 200 of them (Martineau, Decker, & Bundred, 2002a).

There are additional reasons for the lack of return flows. For instance, Davide Mosca of the International Organization for Migration (IOM) explains that, while many professionals would like to return home, they fear losing their residence status in the country where they have been working (Nullis-Kapp, 2005). (This portends a possible policy measure that recipient high-income countries could take to remove this barrier.) Another obstacle that prevents the Diaspora from returning is the significant number of countries that do not allow dual citizenship. This discourages migrants from remaining for a sufficient length of time in their home countries to assess the economic situation and relocation possibilities, while risking loss of status in countries in which they have become permanent residents.

Nurses and physicians working in rich countries also develop new sets of skills which would be difficult to transfer back because of significant differences/discrepancies in health care facilities and technologies. It would thus be difficult for a Zambian nurse working in an intensive care unit in the US to transfer useful skills if she returned to a district hospital in her country (Martineau et al., 2002b).

Returning is often not easy for health professionals, even for those who are highly motivated. The logistics of resettling are daunting and adjustment to life back in their home countries can be difficult for families, especially those with children. Some young health professionals intend to work overseas for a short time and then return. However, they also tend to start families and then are “stuck” in their adopted countries, at least until their children have completed their primary, secondary or tertiary education. By that time, many will find it hard to get back into employment at an appropriate level in their home country (Martineau et al., 2002b); and may not return (if at all) until close to, or for the explicit purpose, of retirement.

Professional life also requires readjustment. Stories have accumulated of health professionals’ difficulties re-entering the work force, dealing with civil corruption, coping with the absence of good regulation of hospitals and trying to practice effectively within generally uncontrolled and uncoordinated health care systems of home countries (Mullan, 2006). Our literature search and anecdotal research demonstrated failed or frustrated attempts by HHR returning to their home countries to work in the public system.

One study of India did report that some physicians expressed an intention to return once they had saved enough money to set themselves up in private business, such as private practice, or by establishing medical equipment firms. India has reportedly latched on to this potential capital investment by returnees and adopted economic policies explicitly to attract émigré capital (Mullan, 2006), although we were unable to locate any published evaluation of the impact of this policy.

There is also anecdotal evidence that some nurses return to home countries. This may well be due to the special nature of nursing contracts (typically shorter-term) and to the fact that many nurses are women.

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Some are single and wish to return to marry in their home countries while others, who have left their families behind, worked with the intention of jump-starting family savings and supporting families back home.  

3.2 Failure of programs to encourage return

In 1992-1993, the Pretoria, South Africa, office of the IOM ran a small program called the Return of Talent Program. The IOM managed to recruit 52 South Africans working abroad, of whom 75 to 80 per cent are reported to have stayed in South Africa since their return. The program was suspended because it was able to recruit so few numbers (Cohen, 2007).

The IOM also implemented a Return of Qualified African Nationals (RQAN) Program from 1983 to 1999 throughout 10 African countries. The program encouraged about 100 nationals to return to their countries of origin every year of the program, thus about 1,600 in total. Professionals who agreed to return under this program would sign two-year contracts that required them to work in the public sector in exchange for travel and housing assistance and enhanced pay. The program, however, had several problems. Its success depended on bringing back sufficiently skilled personnel to make an impact, and this was not always the case. Finding the capital required to ensure the success of the program was also tricky given the poor economic situations of the countries involved. Many of the factors that drove people out in the first place still persisted in much of the continent. In some cases, returnees eventually moved back to the developed countries, therefore defeating the purpose of the return option. The incentives offered to returnees also served to undermine those who had never left; they felt that their loyalty went unrewarded while returnees were offered lucrative packages. These assisted return programs proved expensive and numerous analysts concluded that there were “expensive failures” (Martin, 2003).

Zimbabwe was one of these countries that tried the RQAN Program from 1983 to 1997. In the last three years of the program, a total of only 27 professionals (11 of whom were doctors) agreed to be relocated back. Zimbabwean analyst Chikanda assesses the program to have had a limited impact at a time when political and economic conditions were less chaotic than they are today and rightly hypothesizes that the program would be even less effective today (Chikanda, 2005a). This begs the question that, if migrants will not even return when they are paid and facilitated to do so, why do we think they will do so of their own volition and effort?

Gaillard and Gaillard note that when conditions begin to improve in countries of origin, there is evidence of expatriate professionals returning (Gaillard & Gaillard, 2003). This was the experience of Singapore, South Korea, Taiwan, and now beginning in China and India (Aluwihare, 2005). This lends strong credence to the argument that a major policy thrust must be to decrease push factors.

3.3 Potential of Diaspora transferring skills and knowledge

Ideally contact between migrants and their home country’s training institutions can lead to new ideas, technology and knowledge transfer. In this spirit, the Ghana-Netherlands Healthcare Project (one of MIDA’s initiatives) stimulates the transfer of knowledge, skills and experience through short-term assignments of Ghanaian expatriates in the Netherlands to Ghana to conduct research and implement projects) and to provide practical internships for Ghanaians in the Netherlands. A centre for the maintenance of medical equipment in Ghana has also been developed. The project has been reported as a success story (Nullis-Kapp, 2005), although details of how or why were not provided. Anecdotally we learned of an increasing number of Diaspora knowledge networks, several of which are contributing to health development in their homelands:

- The Ethiopian North American Health Professionals Association (ENAHPA), in collaboration with US universities and hospitals, mobilizes and transfers health care delivery knowledge-based technologies from the US to train Ethiopian HIV-AIDS workers.
- Somali immigrants worldwide mobilize resources to rebuild, equip and staff two major hospitals in their homelands.
Ghanaian and Liberian physicians in the US are currently undertaking major health sector development initiatives in their respective homelands.26

While such “brain gain circulation” efforts are important and should not be minimized, our literature review found few other examples of Diasporas being organized to help transfer skills and knowledge. For the most part, Diaspora network efforts seem to be limited to fund-raising through HTAs (discussed above) or as informal networks encouraging compatriots to emigrate and work (Poros, 2001). It may be unrealistic to believe that skills and knowledge will be voluntarily transferred back to source countries, at least to the scale commensurate to the initial loss. This would only occur if the migrant returns temporarily or permanently to work in the health care system in the source country and he/she is given the opportunity to transfer skills. Initiatives such as the Ghana-Netherlands one cited above may be admirable but are also very costly. High costs is the principal reason why IOM’s return of talent programs have failed – this in addition to the fact that migrants do not wish to return to countries with conditions the same as or worse than when they left.

26 Rudi Robinson, The North/South Institute, personal communication of November 17, 2006.
E. Globalization, Human Rights and HHR Flows

Physicians and nurses have a right to seek migration, which they often pursue to better themselves financially or for greater job satisfaction, research opportunities and access to practice facilities, or for family considerations such as improved security or educational opportunities for their children. A focus on this right alone, however, ignores the rights of patients in the donor country to have the services of persons towards whose education the state has made a huge contribution (often the training being almost free) (Aluwihare, 2005).

1. The state of HHR and migrants’ rights in source countries

It is evident in the literature on migration in general and brain drain specifically that health care professionals are leaving their countries largely because their fundamental rights to work, to an adequate standard of living and to security are not being adequately protected. Articles 23(1) and 25(1) of the Universal Declaration of Human Rights respectively recognize that “[e]veryone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment”, and that “[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family”. While many other skilled individuals (such as judges or accountants) face the same challenges, emigration is a real option for health professionals to seek better fulfillment of these rights owing to their portable skills which are in demand abroad.

Physicians in developing countries, if they are able to obtain work and if they are paid reasonably and on a regular basis, are better able to support themselves and their families than individuals without skills. However, the struggle to sustain an adequate standard of living is persistent and its outcome uncertain. Moreover, in many cases, individuals cannot depend on an adequate social security system to support them in the event of unemployment, illness or retirement. In the overwhelming majority of cases, physicians seek to migrate because these basic rights are not secured or are at risk of being violated.
Compounding this struggle to obtain an adequate standard of living are the extremely challenging working conditions many HHR personnel in these countries face day-to-day. High stress, job insecurity, long hours, inadequate equipment and medicines, and shortages in staff make for a less than favourable working environment. Recent surveys of skilled professionals in South Africa (including a sub-sample of health workers in the Southern African Development Community [SADC] of countries) finds that health workers are more likely than other professionals to express a high expectation of emigrating (primarily to the UK, US, Australia, Canada and New Zealand, in that order of preference). Somewhat alarmingly, this intention is stronger among trainees than those currently practicing, portending a worsened work environment in the future.

The brain drain literature and findings of our own studies (Labonté et al., 2006) indicate strongly and clearly that the cycle of movement from developing to developed countries will only begin to diminish when the root causes of migration are addressed. This is not earth-shattering news either. The Cairo Declaration and Programme of Action, adopted at the International Conference on Population and Development in 1994, describes the complexity at hand, stating that “[t]he long-term manageability of international migration hinges on making the option to remain in one’s country a viable one for all people” (International Conference on Population and Development, 1995). However, it also recognizes that, to make this option viable, “countries of origin and countries of destination must cooperate” (International Conference on Population and Development, 1995). So what then are the human rights obligations of higher-income recipient countries?

2. Human rights obligations of recipient countries

States parties to the International Covenant on Economic, Social and Cultural Rights (ICESCR) are obliged to respect the right to health in other countries (Hunt, 2005). Their unilateral actions or international negotiations should not limit the abilities of other countries to fulfill their own obligations under Article 12 (right to health) of the ICESCR. Paul Hunt, the UN Special Rapporteur on the Right to Health, explains in his recent report to the Commission on Human Rights what this means with regard to health human resources:

[D]eveloped countries should ensure that their human resource policies do not jeopardize the right to health in developing countries. If a developed country actively recruits health professionals from a developing country that is suffering from a shortage of health professionals in such a manner that the recruitment reduces the developing country’s capacity to fulfill the right to health obligations it owes its citizens, the developed country is prima facie in breach of its human rights responsibility of international assistance and cooperation in the context of the right to health (Hunt, 2005).

In our view, there is a smoking gun where recruitment is concerned. Whether one sees it as passive or active, the recruitment of foreign-trained physicians to wealthy countries is happening, even with the Commonwealth Code of Practice for the International Recruitment of Health Workers and other ethical recruitment agreements in place and despite significant global awareness of the impact of the brain drain on source countries. In Canada, for instance, immigration programs and policies adopted by the federal government make it easier for foreign-trained health professionals to come to work in Canada. Moreover, regional health authorities and clinics, which operate under provincial jurisdiction, are actively recruiting in developing source countries, in that they have targeted job announcements to health professionals in these countries through medical and other professional journals published in those regions. Australia and the UK do the same.

States parties to the ICESCR are also obliged to protect against infringements of Article 12 of the ICESCR by third parties such as corporations, by ensuring that third parties over whom they have legal or political influence respect the enjoyment of this right in other countries (Hunt, 2005). This obligation should prevent health authorities in source countries (whether private or public) from using the services of recruiting agencies in developing countries with a shortage of health professionals. Whether, and the extent to which, they now use such services for recruiting health professionals is unknown to us. A final
obligation bearing on wealthier nations is a require-
ment to aid poorer countries, through international
assistance and cooperation, in their abilities to fulfill
the progressive realization of this right (Hunt, 2005).
Official development assistance (ODA) is one indica-
tor of commitment to this obligation, although not
the only one. With respect to the brain drain problem
developing source countries, the failure of recipient
countries to be self-reliant in domestic HHR arguably
abrogates their obligations under Article 12. Failure
to be self-reliant creates a de facto pull on health care
professionals from other countries that undermines
the progressive realization of this right.

3. So whose right to health prevails?

Receiving countries accept and licence foreign-trained
health professionals because there is a significant short-
age of domestically produced professionals and con-
siderable underserved (rural) areas. Foreign-trained
health professionals fill important gaps and, as a con-
sequence, health care is made more available and ac-
cessible to their populations. Receiving countries are
thereby better able to fulfill their obligations under the
right to health by accepting foreign-trained health care
professionals. In the case of source countries, however,
migration has the exact opposite impact on the state’s
ability to secure this right. The loss of health profes-
sionals through migration means they are less able
to ensure availability, accessibility and quality. The
emigration of their health care professionals therefore
contributes to their abrogation of obligations.

De Mesquita and Gordon detail a human rights frame-
work for HHR migration, applicable to both source
and recipient countries:

Governments of countries of origin should
improve rights in work for employees in their
home country by strengthening their public
systems, including better human resources
planning. They should allocate a health share of
the State budget commensurate with generally
recognized international benchmarks and
international agreements that they have signed
up to. They should possibly adopt a range of
other appropriate measures for meeting the
right to health that are fast to implement in the
short term, including auxiliary worker training,
managed migration and a contract with health
staff trained in the public system that invokes
an obligation to the public health system for
a period of time after training is completed.
[Recipient] country governments should
increase the resources available for countries
of origin to strengthen health systems through
positive and explicit acknowledgement of the
human rights impacts of hiring of international
staff, known as restitution (Bueno de Mesquita
et al., 2005).

Drawing his recommendations largely from the Plan
of Action to Prevent Brain Drain issued by Physicians
for Human Rights, Hunt advocates, among other
things, compensation. He states that, “depending on
resource availability, States should provide aid to de-
veloping countries so as to facilitate access to essen-
tial health facilities, goods and services… Aid poli-
cies should include support for human resources in
the health sector” (Hunt, 2005). At the same time,
he points out that it is fundamentally disingenuous
to provide overseas development assistance, debt relief
and other forms of aid with one hand while simulta-
neously taking health professionals trained at the ex-
 pense of developing countries with the other (Hunt,
2005). “Recipient and other developed countries must
therefore address their own inadequate production and
retention of health professionals, adhere to ethical
recruitment principles, help strengthen health systems
in source countries and promote macro-economic
policies consistent with human rights” (Hunt, 2005).

Views from source and recipient countries on whose
rights prevail are understandably in diametric opposi-
tion to each other. In our own survey of Canadian
stakeholders, nearly all persons interviewed felt the
right of the migrant takes precedence; that freedom
of movement of the individual is the “trump” right.
The other side, however, argues that “no one talks
about the rights of the public that financed the medi-
cal training or those of the patients who are left bereft
of a physician” (Aluwihare, 2005). In fact, the rights of
all individuals concerned are equal and measures, such
as those advocated by Hunt, must be taken to ensure
the fulfilment of the rights of one do not compromise
fulfilment of the rights of others.
One of the defining characteristics of contemporary globalization is the growth in the number of bilateral, regional and multilateral trade liberalization agreements. The sheer number of bilateral agreements makes any assessment of their provisions on the movement of HHR beyond the scope of this paper’s analysis. As one recent example, however, Japan and the Philippines concluded a bilateral agreement in September 2006 that allows for up to 500 Filipino nurses or caregivers to enter Japan each year for work, professional education or language training. This number is expected to rise as the elderly Japanese population increases.27

1. Regional Trade Agreements

A number of regional trade treaties have incorporated specific measures designed to encourage the free movement of labour within their defined geopolitical areas.

1.1 European Union

The European Union has established an inclusive model of mutual recognition of qualifications in which, for example, registered nurses or midwives are free to work in any other member state. As a result, the barriers to mobility have less to do with recognition of qualification and more to do with linguistic and other barriers (Buchan, Parkin, & Sochalski, 2003).

1.2 NAFTA

The North American Free Trade Agreement (NAFTA) enables some, but not all, Canadian, Mexican and American citizens to work temporarily in each others’ countries, and provides a framework for mutual recognition of professional competency. In practice NAFTA has encouraged movement primarily between Canada and the United States. Because medical staff are accredited by the same organization, this ensures that medical students in both countries receive a similar education. Canadian medical graduates therefore can apply for a US residency-training program and subsequent to that become licensed to practice in the United States; and vice versa (Biviano & Makarehchi, 2003). NAFTA-approved migrants do not require visas. Foreign health workers therefore only need a letter of employment to present at the port of entry (Ouaked, 2002).

ASEAN is a participant in the global trade liberalization process through the establishment of the ASEAN Free Trade Area (AFTA), which is now proceeding to establish the ASEAN Economic Community (AEC). The AEC will turn ASEAN into a single market with over 500 million consumers and the free flow of goods, capital, services and skilled labour by the year 2020. The health services sector has been set as one of 11 priority sectors to be accelerated and fully liberalized by 2010. At present, negotiations are in the advanced stages for specific health commitments. This would include the mutual recognition arrangements for freer movements of health professionals such as nurse and medical practitioners.\(^{28}\)

**World Trade Organization**

Aside from the regional free trade areas, WTO rules have attracted the most attention in terms of implications for health worker migration. Of specific concern are the negotiations around the General Agreement on Trade in Services (GATS), a set of multilateral legally enforceable rules designed to encourage the liberalization of trade in services (OECD, 2002). The most forceful GATS provisions are bottom-up, applying only to those sectors and measures that governments specifically agree to cover. In making commitments to these rules governments can specify how they apply to particular services and government measures. Commitments can be unbound (applying only to current government measures) or bound (covering current and any future government measures). They can include limitations on the range of services and measures covered, or they can be without limitations. Commitments can be limited to certain ways of providing services, or they can cover all possible ways of providing the service.\(^{30}\) However, this formal flexibility is diminished by intense negotiating pressure to extend the reach of GATS rules with full, bound commitments and minimal limitations.

It is GATS Mode 4 (presence of natural persons) which most directly relates to the provision of health services by individuals in another country on a temporary basis (Bach, 2003). If a country allows the entry of foreign doctors and nurses as service providers, GATS requires that it must make its licensing requirements transparent and freely available, and must administer tests in a reasonable and impartial manner. At the same time, countries committed to allowing the entry of foreign health workers have the right to verify foreigners’ cre-

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\(^{29}\) Blouin, C. The Impact of Trade Agreements on the Mobility of Health Workers (May 2005); background paper prepared for Canadian research study (Labonté et al. 2003 – 2005) on the flow of HHR from sub-Saharan Africa to Canada. Available from Prof. Ronald Labonté: rlabonte@uottawa.ca.

\(^{30}\) The GATS defines four possible ways of providing services, or modes of supply. Each of these can apply to public health services:

1. Cross-border delivery of services (such as shipment of laboratory samples or provision of telehealth services)
2. Consumption of services abroad (called “health or medical tourism”)
3. Commercial presence (foreign investors provide private hospitals, clinics, treatment centres, insurance or facilities management)
4. Presence of natural persons (the temporary movement of health professionals from one country to another).
dentials to ensure they are consistent with national credential rules. There are no specific limits on the cost, duration or standards of this testing (Martin, 2003). In theory Mode 4 has made international labour mobility for health workers easier. In practice, however, none of the high recipient countries for foreign-trained HHR (Canada, the US, the UK/EU, and Australia) have made commitments that would directly facilitate the movement of physicians, nurses or other health professionals.31 While negotiations in services continue to be slow with no indication of new requests or offers in the health sector, the possibility remains that GATS Mode 4 agreements could increase the flow of HHR from developing to developed countries.

Other GATS modes also have implications for both internal and external flows of HHR. Mode 2 (consumption abroad) ensures that patients can physically travel to another country to obtain treatment. This has facilitated the industry of cross-border health care which has blossomed in all regions. Mode 3 (commercial presence) allows foreign private health providers and insurers to operate alongside domestic private health industries. It is primarily through these two modes that GATS has generated controversy with respect to increased privatization of health services (Bach, 2003). Proponents of GATS argue that whether liberalization in such services produces a net public health gain or loss depends on the domestic regulatory structures in place to manage its impacts (Adlung & Carzaniga, 2002). While true in theory, the 2000 World Health Report cautioned that “few countries (with either high or low income) have developed adequate strategies to regulate the financial and provision of health services”, noting that “the harm caused by market abuses is difficult to remedy after the fact” (World Health Organization, 2000). As health workers abandon the public health sector for better paying jobs in the private sector (and as a stepping-stone to employment overseas), large portions of populations may be left without access to health care.

While the GATS is not the key driver of services privatization, it does lock in existing levels and secures and entrenches pro-competitive policies in areas where countries have made commitments (Pollock & Price, 2003). Moreover, GATS commits all WTO members to progressive liberalization, where successive negotiat-

Box 1.

The Thailand experience in health services trade

Although Thailand has not made commitments under the GATS agreement, it has participated in an active global trade in health services (notably the promotion of private urban hospitals) since the early 1990s. This has been facilitated through tax incentives to investment in private hospitals, which in 2002 numbered 199. This has enabled a rapid and substantial rise in the number of foreign patients being treated, mostly from high income countries, notably Japan, the US, Taiwan, the UK and Australia, but also increasingly from Middle Eastern oil-rich nations. In 2001 over 1 million foreign patients were estimated to have been treated in both private and public facilities (though predominantly in the former). The government policy is to continue to increase the number of foreign patients, with a target rise of 15 per cent in 2003. But a study of the impacts of this global trade raised many concerns:

What are the direct consequences of the growing influx of foreign patients? The resources used to service one foreigner may be equivalent to those used to serve four or five Thais. Thus, the workload is equivalent to three or four million Thai patients. This was equivalent to about three percent of the total workload of the system in 2001. If growth continues at the current rate, the workload for servicing foreign patients may go up to 12 percent of the total workload in five years. This means the requirement of about an additional 3,000 full-time equivalent doctors for urban private hospitals. It also raises the problem of the shift of human resources from the rural public to the urban private service sectors.

(Source: Blouin, Drager and Smith 2006; pp.177-78; based on Pachanee and Wibulpolprasert, 2003).

31 Blouin, C. The Impact of Trade Agreements on the Mobility of Health Workers (May 2005); background paper prepared for Canadian research study (Labonté et al. 2003 – 2005) on the flow of HHR from sub-Saharan Africa to Canada. Available from Prof. Ronald Labonté: rlabonte@uottawa.ca.
health care or other health-promoting services. A high-level group created by the British government to advise on industrial world policies towards persisting African health and development crises, the UK Commission for Africa 2005 cautioned that GATS – like all WTO trade treaties – is not an appropriate vehicle through which developing countries should undertake liberalization of any service sector. It states, forcing countries to liberalise through trade agreements is the wrong approach to achieving growth and poverty reduction in Africa, and elsewhere” (Commission for Africa, 2005). Developing countries made a disproportionate share of GATS commitments in 1995 and often included fewer limitations than those specified by industrialized countries (Labonte, Schrecker, Sanders, & Meeus, 2004).

Yet more countries are concerned with the need to further facilitate the movement of professionals to retain healthier balance of payments through the prospect of sustained or increased remittances. They also are willing to further liberalize movement, for example by removing the temporary character of migration which is allowed under Mode 4. This is already generally interpreted as meaning any migration which is not permanent (Ouaked, 2002).

We echo here the caution expressed in the GKN paper on Trade Liberalization. Countries should only commit to trade liberalization in health services after they have experienced successful regulation of both domestic and foreign private provision of such services in ways that enhance, and do not detract from, equity in access for their population.
Various policy efforts to mitigate the global health inequities arising from HHR flows have been discussed in this paper. In this section we consolidate these policy options under six R categories, adapted from Lowell (Lowell & Findlay, 2002). Some of these options have been advanced as possibilities while others have already been adopted in some countries.

1. **Retention through creative means**

At current levels wage differentials between source and destination countries are so large that small increases in HHR wages in source countries are unlikely to affect significantly the out-migration of health personnel. Aside from substantial increases in pay across the country and across both physician and nursing professions, other measures could be, and in some instances have been, implemented to help retain HHR.

1.1 **Training**

The 2006 World Health Report went beyond the simple need to retain, locating it within concerted efforts to train, retain and sustain. More health workers are needed and, once trained, they need to be retained in underserved countries or underserved rural areas within countries; part of that retention lies in adequate health systems, good management, career development and valorization of the contribution to the public’s good made by health workers.

One option frequently mooted is that all countries should commit to becoming self-sufficient in the development of their own domestic supply of HHR by a given target date. This would apply particularly to those OECD countries that remain heavily reliant on foreign-trained health professionals, and essentially eliminate pull factors. However, such a commitment

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32 The literature is somewhat contradictory on the role of wage differentials as a significant factor in HHR migration. One oft-cited study found that such differentials were insignificant in predicting HHR migration patterns; yet survey research of Southern African health professionals find that economic (including salary) considerations are amongst the most important reasons for them to emigrate.
would likely be little more than a rhetorical gesture, even if it were to come about. The flow of HHR from poor to rich nations is sustained and will persist for some time because of a number of factors:

- the history of flawed HHR planning in many high-income countries
- the inherent difficulties of such planning given sometimes rapidly changing fiscal, demographic and technological drivers
- the level of funding and length of time it would take to create such self-sufficiency
- the reality that push factors will not cease in the near term, even with shifts in health prioritization in source countries and despite increases in financial transfers from receiving countries

A compromise strategy, embodied in the World Health Assembly’s Resolution 59.23 (May 2006), emphasizes the importance of dramatically increasing training for health workers in source countries, notably in SSA, with increased financial and non-financial support from “receiving developed countries”. Increases in bilateral aid for such purposes have been announced by a number of donor countries, although precise data on this, and other aspects of the WHA resolution, are not expected until a progress report is made at the 2007 WHA.

1.1.1 Auxiliary mid-level health workers

Several SSA countries are either actively or planning to begin training auxiliary (mid-level or substitute) health workers whose skills are less marketable globally. Examples are. Tanzania, Zambia, South Africa, Malawi. There is no evidence that, with an adequate training curriculum, higher skilled back-up and good supervision, the expanded deployment of such workers leads to a “second class health system”, as is sometimes claimed by medical and nursing organizations in both source and receiving countries. Neither does evidence negate the importance of also training highly qualified practitioners as the burden of chronic disease (often requiring technically complex interventions) now rivals that of infectious illness in many SSA countries.

Developing source countries are not the only ones that can benefit from moving away from the traditional health care workforce, creating new forms of auxiliary staff. For instance, the Parkland Health and Hospital System in Dallas, Texas, has created a cadre of community health workers (CHWs) involved in community outreach, care coordination and training aimed at reducing infant mortality, pre-term low weight births and other preventable risks. The CHWs are representative of the clients they serve – Hispanic, African American and Asian American. Weekly program staff meetings are held with physician co-leaders.

1.1.2 Matching curricula to domestic health concerns

Training and curricula should also be specific to source country settings and needs, with a focus on the diseases dominant in their own countries. Western-based medical or nursing curricula that fail to address local needs also increases the employability, hence pull, within a global HHR labour market.

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33 The text of the resolution reads: 1. URGES Member States to affirm their commitment to the training of more health workers by: (1) giving consideration to the establishment of mechanisms to mitigate the adverse impact on developing countries of the loss of health personnel through migration, including means for the receiving developed countries to support the strengthening of health systems, in particular human resources development, in the countries of origin; (2) promoting training in accredited institutions of a full spectrum of quality professionals, and also community health workers, public health workers and paraprofessionals; (3) encouraging financial support by global health partners, including bilateral donors, priority disease and intervention partnerships, for health training institutions in developing countries; (4) promoting the concept of training partnerships between schools in industrialized and developing countries involving exchanges of faculty and students; (5) promoting the creation of planning teams in each country facing health-worker shortages, drawing on wider stakeholders, including professional bodies, the public and private sectors and nongovernmental organizations, whose task would be to formulate a comprehensive national strategy for the health workforce, including consideration of effective mechanisms for utilization of trained volunteers; (6) using innovative approaches to teaching in developed and developing countries with state-of-the-art teaching materials and continuing education through the innovative use of information and communications technology; 2. REQUESTS the Director-General: (1) to provide technical support to Member States, as needed, in their efforts to revitalize health training institutions and rapidly to increase the health workforce; (2) to encourage global health partners to support health training institutions; (3) to encourage Member States to engage in training partnerships intended to improve the capacity and quality of health-professional education in developing countries; (4) to encourage and support Member States in development of health-workforce planning teams and use of innovative approaches to teaching in developing countries with state-of-the-art teaching materials and continuing education through the innovative use of information and communications technology; (5) to report to the Sixty-third World Health Assembly in 2010 of progress made in the implementation of this resolution. Ninth plenary meeting, May 27, 2006. UNGA A59/VR/9.

34 This sentiment was expressed by many respondents in our Canadian stakeholder study. Interestingly, in remote parts of Canada nurses or nurse practitioners undertake many procedures that would normally be within a doctor’s scope of practice.

1.1.3 Twinning schemes

Another initiative believed ultimately to improve retention is the matching or twinning of training units – typically between universities in developed and developing countries – based on identified training needs. The idea is that through education, training and transfer of skills, much needed capacity is increased, service delivery is improved and the confidence and morale of staff is enhanced. Such programs lead to innovative, sustainable and cost-effective solutions by reducing the need for health workers in developing countries who want to improve their skills, to quit their jobs, find new ones in developed countries and move with their families for lengthy periods, which are all actions which increase the risk of permanency of their out-migration. The attraction of such exchange programs to academicians and training hospitals is that they can fully initiate and control the program, provided they obtain funding from donors. One such program that has been particularly successful is Vision 2020 Links Programme run out of the London School of Hygiene and Tropical Medicine. The school obtains requests for links from training centres in developing countries, performs needs assessments and then matches these centres with suitable training partners in the UK.36

1.1.4 Partnerships among professional associations

Medical, nursing, pharmaceutical, dental and other professions have national associations that can seek partnerships for capacity-building in HHR and knowledge transfer of best practices for professional retention. The international councils of these national bodies can also serve as vehicles to coordinate these partnerships or spearhead initiatives. This is already happening. For instance, the International Council of Nurses (ICN), a federation of 129 national nurses’ associations, drew upon the knowledge base of their memberships to create Wellness Centres in Swaziland. With the aim of reducing burnout and departures, these centres offer hospital staff services in areas such as stress reduction, decreasing the risk of HIV infection, and dealing with the stigma of HIV infection. The ICN will help establish other such centres in Lesotho, Malawi and Zambia.37

1.2 Incentives for placements in rural and underserved areas

The internal distribution of health workers needs to be taken into serious consideration since rural areas (in both source and receiving countries) are critically short of health workers and are the first to lose in the global flow of HHR. Health workers in developing countries, and to a slightly lesser extent in developed countries, rarely come from rural areas or places of great deprivation. They come from urban centres and are likely to be from elite or at least wealthy families. As such, domestically trained physicians and nurses are reluctant to take positions in these areas where there is greatest need. As noted earlier, it is often difficult to encourage medical personnel to serve in these areas and the resulting tendency is for new migrant physicians and nurses to take up these vacant posts (such as Cubans in South Africa and South Africans in Canada) (Gent & Skeldon, 2006).

One solution to this problem would be for countries to offer extra pay to health workers who take posts in rural or other underserved areas. Health professionals working in especially remote or otherwise very unpopular areas could be eligible for extra incentives. One study has observed, however, that wage differentials for those accepting posts in these regions would have to be significant to be effective in attracting physicians and nurses (Vujicic, Zurn, Diallo, Adams, & Dal Poz, 2004).

Incentives and disincentives need not be only financial in nature. In terms of incentives a country could take measures to provide subsidized housing, deferred or reduced student loan schemes, better access to promotions and specialized training for those willing to go to rural areas. In terms of disincentives, a community service requirement that encourages health professionals to practice for a fixed period in rural and other underserved areas could be envisaged (Physicians for Human Rights, 2004). Another strategy that has been advanced is a requirement of internship rotation where nursing and medical school students in their final year work in both rural and urban areas (Serneels, Lindelow, Garcia-Montalvo, & Barr, 2005b).

One novel example of incentives is the 2004 commitment by the UK (through DFID) to support Malawi’s health system by providing £100 million, of which £55 million is for its Emergency Human Resources program. This program is designed to double the number of nurses and triple the number of doctors in training, and to help retain those working in the public sector by directly topping up their salaries. According to DFID, by 2006 the program had already posted positive measures. Four hundred and fifty “new health workers had joined in the first nine months; the top-ups have slowed the exodus of nurses; the Ministry of Health recruited over 570 new staff; and recruitment of 61 international volunteers had beaten the target set for the first year.” The head of the Nurses and Midwives Council of Malawi, Maureen Chirwa, is less sanguine, noting that the majority of doctors and nurses “look beyond salary increments, they are looking at their own personal development, which is not there. Some are interested in specialization, and they cannot find it here in Malawi. Others need better housing and better education for their children, which cannot be provided in remote parts of the country.”

The UK commitment is for six years, long by historic aid standards, but leaving open the question of what happens in 2010.

2. **Recruitment of in-country health workers**

Wastage of trained HHR occurs in both source (Dovlo, 2005c) and receiving countries. This occurs when a country develops or gains health professionals through in-migration but fails to employ them. In the case of Canada, as an example of a receiving country, there are reportedly 3,000 to 4,000 skilled foreign-trained physicians who have not obtained Canadian certification and are therefore under-utilized (College of Physicians and Surgeons of Ontario, 2004). It would arguably cost Canada less to bring these already knowledgeable individuals’ skills up to par than to train new professionals from scratch. Canada has created an initiative that, while it does not seem to have been implemented, commits funds to help foreign health workers obtain additional training so that they can become accredited. This is a good example of an initiative a recipient country can take to make full use of skilled foreign-trained health professionals already within their countries.

Another form of wastage takes place when nationals of a developed country obtain their nursing or medical training abroad and then encounter problems becoming certified or obtaining residencies upon return to their home country. Using Canada once again as an example, it has been reported that in one province alone (Ontario), 200 Ontarians a year graduate from medical schools outside of Canada. Roughly 100 Canadians are enrolled each year in four schools of medicine in Ireland alone (Sullivan, 2000). Fifteen per cent of the 1,929 medical doctors entering their first year of residency in the 2004-2005 school year were Canadian citizens or permanent residents who obtained their MD training abroad. While there is no data on the number who are unable to obtain residencies, key informants expressed concern that some, at least, were unsuccessful (Labonte et al., 2006). In light of this, calls have been made for improved mechanisms to evaluate degrees obtained by Canadians abroad. In the event of inadequate equivalencies, residencies and upgrading to meet Canadian standards would be made available, thereby eliminating burdensome and unnecessary barriers (College of Physicians and Surgeons of Ontario, 2004). Other recipient countries could similarly examine the extent to which they may also incur such wastage and ways in which they can reduce it.

In other instances wastage of existing health workers is not the issue. Rather it is the dire need to train and recruit large numbers of health workers to occupy vacant posts which countries are ready and able to fund. A significant source of pull of foreign-trained health workers into wealthy countries is their own difficulty in recruiting domestically trained health workers to work in rural or distant communities. More initiatives have to be adopted by wealthy countries to train and place domestically trained health workers in these regions, whether through incentives or disincentives.

Kenya serves as a different example. The country instituted an emergency health workforce mobilization plan to deal with a shrinking public health workforce.

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and the mal-distribution of existing staff. The goal of the plan is to develop and implement a fast-track hiring and deployment model which will place 800 additional health workers into the public health care system rapidly. Professions in extreme shortage and easier to fast-track are a priority. These include nurses, clinical staff, medical lab staff, pharmaceutical technologists and health records staff.\footnote{Presentation of Ummuro Adano at the 33rd Annual International Conference on Global Health, Washington, D.C., 31 May 2006. Available at: http://www.globalhealth.org/images/pdf/conf_2006/presentations/a5_adano.pdf.}

3. **Recruitment managed through bilateral and multilateral agreements**

One of the better known existing agreements is the bilateral agreement between the UK and South Africa.

3.1 **The UK-South Africa Memorandum of Understanding**

Under its National Health Service (NHS) Code of Practice, the UK cannot actively recruit health care workers from South Africa, among other countries. However, a Memorandum of Understanding between the two countries was formulated which facilitates exchanges between them. Specifically it provides that South African health care personnel can spend limited education and practice periods in organizations providing NHS services. Clinical staff from the UK works alongside health care personnel in South Africa, with particular emphasis on the rural areas. The memorandum also provides for a bilateral twinning scheme between a South African and UK hospital. This has allowed 30 South African nurses to be placed in the UK for theoretical and practical training while senior nurses from the UK have worked in South Africa as mentors.

3.2 **Alternative targets within agreements**

3.2.1 **Focused on key source universities**

A handful of studies have briefly alluded to the likelihood that, for most receiving countries, foreign-trained health professionals tend to come from specific “top 10” medical schools. Recruiters are aware of these schools and may have direct contacts. Émigré health workers established and working in recipient countries also become a source of networks, spreading the word of available jobs to former and new alumni from their universities back home (Labonte et al., 2006). The 10 top schools from which nearly 80 per cent of Sub-Saharan African physicians come to practice in the United States are (in descending order) (Hagopian et al., 2005):^\textsuperscript{41}

<table>
<thead>
<tr>
<th>University</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>University of the Witwatersrand</td>
<td>South Africa</td>
</tr>
<tr>
<td>University of Cape Town</td>
<td>South Africa</td>
</tr>
<tr>
<td>University of Ibadan</td>
<td>Nigeria</td>
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<tr>
<td>University of Lagos</td>
<td>Nigeria</td>
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<tr>
<td>University of Nigeria</td>
<td>Nigeria</td>
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<tr>
<td>University of Ghana</td>
<td>Ghana</td>
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<tr>
<td>Addis Ababa University</td>
<td>Ethiopia</td>
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<tr>
<td>University of Benin</td>
<td>Nigeria</td>
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<tr>
<td>University of Ife</td>
<td>Nigeria</td>
</tr>
<tr>
<td>University of Pretoria</td>
<td>South Africa</td>
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</tbody>
</table>

The possibility that recipient countries are largely drawing foreign health workers from the same training schools merits further research. If proven true, agreements for managed migration and even compensation could be made directly with the schools concerned. This would, at a minimum, ensure that recipient countries do not always recruit the brightest and the best (i.e. from the top schools) and that funds go directly back into training programs and schools.

3.2.2 **Focused on taxation and remittances**

Creating an equivalent-to-charitable tax category in high-income countries for émigrés making health-specific contributions to their home countries could provide incentive for remittances with public welfare gains. Some health-oriented non-governmental organizations with charitable status likely operate already in émigrés’ adopted countries. A bilateral agreement could extend this to a broader range of clearly identified and mutually agreed upon public or not-for-profit health facilities or training centres in their home countries. This would allow for increased and more direct remittance support. A more dramatic policy option would be a reciprocal tax agreement, whereby taxes paid on income earned by émigré health professionals in high-income countries would be transferred directly to the governments of their source countries, without being counted as part of

\footnote{We were unable to obtain similar information for other source countries.}
official development assistance (ODA). Stipulations could be made around such transfers, such as what portion should be directed to health or training budgets and what could go to other government spending on the social determinants of health. A guideline here could be to follow the allocations made by the high-income governments. Such transfers should not create incentives for governments to reduce their own portion of public spending. Agreements would also have to cover whether such a provision would be for all, or only some portion, of tax collected in the high-income country, for how long and/or with gradual reduction.

These are novel suggestions that arose in different meetings in which the authors participated over the past 18 months; their feasibility has yet to be determined but seems to merit exploration.

4. Restriction of international mobility

Restrictions can be applied on both the exit of individuals by source countries and their entry by receiving countries. Examples of both forms of restrictions exist and, in the latter case, have been modestly successful. A third form of restriction consists of reducing employment options for foreign-trained health professionals as health professionals within receiving countries.

4.1 Restrictions on emigration making it difficult for nationals of source countries to take jobs abroad

The most obvious form of restriction on emigration is the use of bonding. One example of a country currently employing this mechanism to control health worker out-migration is Zimbabwe, addressed in one of our case studies.

There are numerous documented problems with bonding (Chikanda, 2005a) (Mensah et al., 2005) (Serneels et al., 2005b):

- Bonding acts as a delaying mechanism to emigration but does not address the root causes. As a result, even if their certificates are withheld, some leave regardless to work in countries where these certificates are not needed or to take on work not requiring certification.
- Bonding itself can have a negative impact, increasing dissatisfaction levels among health workers and increasing the push to other countries.
- Bonding new graduates means source countries gain the use of less experienced health professionals and recipient countries receive them with some experience already in hand.
- Where fines are legislated for those who break bonds (such as in Ghana), high inflation and currency depreciation in home countries compared to earning potential in rich countries reduces the real cost of the bond, rendering it ineffective. Moreover, many doctors in Ghana left without even paying their bond since policing of the bond was poor.
- Bonding schemes in other countries have suffered from corruption and favouritism, and the possibility for well connected or better-off individuals to bypass the schemes have undermined their legitimacy.
- This coercive measure also dissuades migrants who have avoided this obligation from returning to their home countries.

4.2 Restrictive immigration of foreign nationals

The South African government does not support the recruitment of health professionals from any SADC country for ethical reasons. This includes non-retention of foreign students who have completed their studies in South Africa. (IOM Fact Sheet: 2006) This policy is widely reported to be effective because it overlaps with recruitment. It is discussed in more detail under that policy heading.

42 ODA for health systems in developing, and particularly least developed and low-income countries, remains a potential source of financial transfer from rich to poor that may reduce push factors, although such aid is limited in many respects (failure by donors to fulfil promises, short-term nature of commitments, unwillingness by most to directly fund salaries, etc.). Some of these points are taken up in the paper by S. Taylor.

43 According to our southern African research colleagues, Kenya matches contributions to its public health systems or non-profit health NGOs made by its diaspora. We have not independently verified this claim. Creating a charitable tax category in high-income countries for émigrés making similar contributions to poorer source countries, however, could provide even more incentive for remittances with public welfare gains, and could conceivably form part of bilateral/multilateral agreements discussed later in this paper.
4.3 Reducing pull factors

At various times, OECD receiving countries have adopted policies that deterred health professionals from seeking to immigrate, principally by reducing employment opportunities for health professionals. During the late 1980s and early 1990s, Canada perceived itself as having an oversupply of HHR. Until 2002 its immigration criteria consisted of an occupations list that notably excluded physicians and nurses (Labonte et al., 2006). However, this did not prevent foreign-trained health professionals from seeking entry to Canada since the push out may well exceed the pull in; and there were other reasons for granting immigrant status besides occupation. At the same time, it made Canada a comparatively less desirable country for health professionals seeking to emigrate.

Similarly, the present situation in the UK explicitly prioritizes locally trained over foreign-trained health workers in filling NHS vacancies. As explained by Debbie Mellor, Director of Workforce Development for the UK Ministry of Health, at a March 2006 IOM/WHO meeting on HHR migration, the UK’s overall goal is to reduce reliance on non-European internationally educated nurses to between 25 per cent and 30 per cent of the total roster – which remains a sizable number. This could easily be a temporary phenomenon.

5. Return of migrants to their source countries

The evidence we found indicates that schemes to promote the return of migrants have so far proved costly and largely unsuccessful, particularly where root factors which caused the out-migration in the first place have not been addressed. Any impact of reducing global health inequities through investments based on this strategy must be weighed against the opportunity costs of investing in more strongly evidence-informed options.

6. Restitution for loss of human capital

The premise of restitution is that receiving countries or émigré health professionals compensate source countries for, at minimum, the loss of training cost investment and, at maximum, estimated economic welfare losses to the country over the foregone lifespan of active professional service.

6.1 Compensation from developed recipient country to developing source country

Source and receiving countries are completely in opposition on this option. Receiving countries consider it a non-starter, based largely on the argument that individuals migrate by free volition, as is their right. And yet, the grounds for restitution lie precisely in human rights treaty obligations and the ethics of governmental behaviour (Bueno de Mesquita et al., 2005).

Source countries argue that the scale of the “perverse subsidy” represented by such HHR flows from poor to rich, particularly in light of international commitments such as the Millennium Development Goals, demands restitution. Citing our own recent study of Canadian HHR policy stakeholders, receiving countries frequently contend that financial reparations would be “delicate”, “difficult”, and even “impossible” to oversee; and that Canadians would not want to reimburse for persons they had not “stolen” or “poached” in the first place: “[W]e didn’t ask them to come… they decided to come on their own in many cases” (Labonte et al., 2006). Moreover, as with bonding, it is necessary to address why compensation should be levied for health professionals over other migrants. A special case for HHR flows can be argued on two grounds. First, several of the internationally agreed upon MDGs directly bear on health systems and sufficient HHR density. Secondly, the seriousness of these flows for many source countries, notably those in SSA, is already accepted as exceptional in global policy forums.

Resolution on this source/receiving country impasse may be impossible to obtain. Being highly politicized, any movement towards resolution requires, at a minimum, sophisticated political negotiation and strong international leadership with both guided by the ethical norm of improving global health equity. An argument for the urgency of creating some form of global cross-subsidization of national health systems to achieve this improvement exists in the equity principles for health systems underscored in the 2000 World Health Report (World Health Organization, 2000): that the wealthy and healthy subsidize the poor and sick. While generally (though not universally) accepted as principles in most national health
Globalization and Health Knowledge Network systems, these have not yet been seriously considered from a global perspective. Yet, as other papers generated by the Globalization Knowledge Network show, net financial capital transfers from developing to developed countries increased substantially over the 1990s, improving the latter groups’ capacities to meet their domestic health equity norms.

Essentially, any policy that addresses simultaneously both push and pull factors in HHR migration will have to engage with mechanisms for global wealth redistribution. Restitution for the human capital loss to developing nations represented by HHR migration is one of many means to begin to create such a global architecture, This is particularly so outside of any official government policy for such migration as exists in the Philippines. It is also a point argued by Mackintosh et al. who note that HHR migration could “offer an effective site for embedding progressive international fiscal transfers in institutionalized ‘meso’-level redistributive mechanisms across national borders” (Mackintosh, Mensah, Henry, & Rowson, 2006). The authors also contend that, should restitution be seriously considered as an option, it should be distinguished from overseas development aid, which is conventionally seen as charity, often subject to donors’ terms, and retractable at donors’ discretion.

How could the compensatory figure be calculated? One commonly cited suggestion is that each country pays for the human resource it imports at a rate commensurate to what it saves in foregone training costs (Aluwihare, 2005). This suggestion would require each country to enter into costing exercises to demonstrate what it costs them to train a doctor, nurse or HHR worker. This would be riddled with complications. For example, micro-determinations would have to be based on individual levels of specializations, years of experience, and full costing would have to include estimates facility construction and maintenance, residency costs to receiving countries and so on. Receiving countries would likely try to underestimate the cost of training, in an attempt to pay less. Methodologies and data may be contested by both sides, and could prove costly and time-consuming to generate. However, these arguments would apply to almost any measure involving intergovernmental wealth transfers and should not be seen as reasons to dismiss consideration out of hand. Others have argued that restitution should take into account larger economic losses associated with depleted human capital, foregone tax revenues or other metrics of economic loss/gain.

Another approach assumes simply that the public salaries paid to émigré health professionals are a good monetized measure of the welfare benefits their work generates (Mackintosh et al., 2006). This method has the statistical advantage of being simplest and most transparent in execution but the political disadvantage of generating the largest restitution estimate.

6.2 Emigration head tax to reimburse immediate loss of human capital

An alternative to a payment commensurate with the savings made by importing a health worker would be a set “head tax” on emigrating health professionals. The nurses union of South Africa (DENOSA) reportedly urged the South African government to impose a form of excise tax on emigrating nurses, although this policy was never implemented. In principle it may be the simplest means of recovering public training costs, although it suffers the same limitations of other forms of bonding. It also creates a discriminatory category for emigrating health professionals, unless applied to all professionals at least partly trained at public expense; and would be ethically questionable if the number of South African trained nurses exceeded the number of nursing posts available (some 25,000 South African trained nurses are no longer working as nurses, or are presently unemployed.)

Indeed, as Mackintosh et al. argue, the most serious ethical limitation in the case for restitution rests on its functioning as a tax on health workers from Africa (or other source countries with an undersupply of HHR, if more broadly imposed), adversely affecting their right to freedom of movement. Their response is to locate restitution within the larger umbrella of redistributive mechanisms based on the following principles (in this case restricted to HHR flows between Africa and the UK):

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Note: The text above contains references to research and policies that are not extensively documented within the visible text. For a comprehensive understanding, one would refer to the original research papers cited throughout the text.
We propose therefore that a fiscal mechanism of redistribution should be established between the UK government and African countries that have an absolute staff shortage in health, an outflow of staff towards the UK and a domestic capability to rebuild health systems were funding available. The redistributive transfers should have the following characteristics:

- they should be positive: the perverse subsidy should be repaid and the calculation should ensure a substantial net positive inflow;
- they should be recurrent: like redistributive domestic health spending, they should support current expenses such as part of the salary, drugs and supplies bills;
- they should be ring-fenced to the health services;
- they should constitute an institutionalised commitment: while sovereign governments cannot easily tie the hands of successors, some formal commitment which would have to be formally unwound would increase stability;
- they should be monitored;
- and if possible they should be embedded in exchanges and support between health professionals and health institutions in the UK and Africa, based in the links that currently exist (Mackintosh et al., 2006).
Globalization and Health Worker Crisis

H. Conclusions and recommendations

Migration is an inescapable feature of humankind. People always have migrated and will continue to pursue what they feel are better opportunities. But the extent to which physicians and nurses are leaving poor countries to work in rich ones is beyond simple migration. It is a symptom, not a cause, of failing health systems.

The key element in both source and destination countries which will stem the HHR migration crisis is retention. The central component of any retention scheme is the improvement of pay and living and working conditions to encourage health workers trained in these countries (and in destination countries in specific geographical areas) to remain. In very straightforward terms, money will resolve this crisis, bolstered by other strategies to improve working environment and conditions and, in many source countries, the overall economic and social health of the country. This will require specific actions, as suggested below and in the case studies, from both source and recipient countries as well as the international institutions (Kapur et al., 2005b).

Both remittances and the Diaspora are often cited as positive by-products of the international migration of skilled workers. We have demonstrated in this paper that neither has proven to compensate for the losses of health personnel to source countries and the blows their departures have made to the health systems of nations. We have found only a few small-scale examples of the positive impacts remittances and Diaspora exchanges can make on health systems in source countries. Some strategies that may be positive catalysts with regard to remittances are considered among our strategies below. However, the implementation of remittance-related strategies typically involves changing the nature of remittances from private to semi-public goods which understandably raises concern among many.

The impact of trade agreements on HHR flows continues to be a concern. While such agreements generally are not the cause of, nor as yet a major factor in, the outward flow of HHR, their potential to become so exists and may be on the rise. Experience with health sector liberalization has shown that inequities tend to
follow in access, largely a result of internal drains from
the rural public to the urban private health systems,
notably those catering to foreign “medical tourists”.
Flanking domestic policies for purposes of ensuring
improved equity in access are theoretically possible.
But little evidence of such policies exists. Countries
should have experience in developing such regulatory
mechanisms before committing to liberalize trade in
health services. If developed countries in the future
open their labour markets to GATS Mode 4 (tempo-
rary movement of people), and specify health profes-
sionals in their commitments, HHR flows could in-
crease. While the temporary visa provisions envisioned
in GATS Mode 4 could limit permanent HHR flows,
in practice temporary visas for highly skilled workers
in high demand tend to become permanent. There ex-
ists a bilateral agreement that deals specifically with
HHR flows, between the Philippines and Japan. It is
premature to consider the implications of this Sep-
tember 2006 agreement. Bilateral or regional trade
agreements that incorporate social and economic re-
distribution policies (as is the EU case) have greater
potential to buffer any negative health equity impacts
of liberalized HHR flows. However, out-migration
HHR shortages being experienced in newer EU mem-
ber countries such as Poland, Lithuania and Slovenia
point to limitations even there.

Key strategies for source countries

Regardless of which set of strategies a country adopts
to manage the migration of health workers, there is a
need to engage a wide variety of stakeholders who, as
Gilson and Erasmus note, “even when they have com-
mon views of [human resources for health] problems
and causes, also have particular perspectives and inter-
ests. Political sensitivity and strategic skills are essential
in such a terrain” (Gilson & Erasmus, 2005).

Recommendation 1:

Improve registration, examination and
deployment procedures for foreign-trained HHR

1. Easing registration such that foreign qualified
health professionals assessed to be competent
could obtain registration without sitting an
examination could facilitate rapid deploy-
ment. This should be used only as a stop-gap
measure and not target or rely on foreign
trained HHR from other underserved source
countries.

2. New foreign HHR could be confined to work
only in the public sector and/or in rural areas
to ensure that health systems in these areas do
not suffer further HHR erosion.

Recommendation 2:

Ensure training curricula and
staffing meet local needs

1. Training and curricula in key source countries
should be increased substantially and adapted
to cover the needs and diseases of source
countries, rather than adopt curricula from
Western countries.

2. Training for auxiliary or mid-level health
profession categories should be given serious
consideration. Both strategies are likely to
diminish HHR incentives to migrate, as well
as ensure that local needs are met more rapidly
and cost-effectively, particularly in rural or
underserved urban areas.

Recommendation 3:

Create retention incentives in the health services

1. Providing extra pay and/or benefits (e.g.
housing allowances, arranging employment
for spouses) to health workers, especially those
who take posts in rural or other underserved
areas would reduce incentives to migrate.

2. Improved management, professional develop-
ment opportunities and clear career paths in
health services can aid in retention.

3. Increasing twinning agreements between
developed and developing country institutions
may enable health personnel to train abroad
and return to their country of origin.

4. Development of international partnerships
among professional bodies could improve
knowledge sharing.

5. Increased domestic funding to health services
(i.e. giving increased priority to health services
in public spending) could offset deteriorating
conditions in many publicly funded services,
reducing incentives to migrate internally to
the private sector or to migrate externally to
high-income countries.
Recommendation 4:
Improve job security and HHR planning

1. Arrangements should exist that facilitate re-entry into the workforce for HHR personnel who choose to temporarily migrate (e.g. on time-specific work visas), such as guaranteeing re-employment, arranging sabbaticals or ensuring that benefits they have accrued during their years in service (such as holidays, pensions and credits towards promotions) are maintained during their time abroad.

2. A number of source countries claim HHR shortages due to out-migration, yet have large pools of unemployed nurses and physicians often coinciding with a significant number of vacancies. A combination of increased domestic prioritization for public health spending with increased external multi-year funding guarantees from donors could help resolve this unhealthy paradox.

3. Dependence by source countries on the import of foreign HHR (notably SSA countries’ dependence on Cuban physicians and, more recently, Chinese physicians) has proven costly and linguistically/culturally complicated. Greater emphasis should be placed on using such funds to train and retain the domestic supply.

4. Source countries should avoid making trade treaty commitments to liberalize trade in health services unless, and until, they have demonstrated experience in regulating such trade in ways that improve domestic equity in health care access outside of such commitments.

Recommendation 5:
Increase public-good contributions from the Diaspora

1. Countries could stimulate increases in public-good remittances through matching remitted funds, or offering tax incentives for such contributions. A distinction between public-good remittances and those intended as private welfare should be retained. Nascent mechanisms for such public-good remittances exist in the networks of Diaspora health professionals, and the hometown associations existing in some countries. Projects funded in this way must be carefully planned for sustainability.

2. New thinking on how governments might transform portions of private financial remittances into public health initiatives could be considered. For instance, a health remittance tax – similar to airport improvement fees – entirely devoted to public health financing or training could be levied on foreign funds received into national banks. Other suggestions include bilateral tax agreements allowing émigrés to submit all, or part, of the higher proportional and absolute taxes in their adopted country to their home country.

Recommendation 6:
Decrease economic and political push factors

1. Source countries must determine the principal reasons for departure of staff particular to their situation and devise plans of action to address these. Return migration and retention of new staff will only occur once the conditions which have caused the exodus are resolved. The push factors most often cited in countries experiencing an undesired HHR out-migration relate to economic and social instability. Resolving these conditions is a longer-term project requiring multilateral support and new global mechanisms of wealth transfers from high- to low-income countries.

Key strategies for recipient countries

Recommendation 7:
Improve self-sufficiency in HHR production

1. Better health human resource planning and investment in receiving countries can reduce pull factors, although this is likely to be a long-term process.

2. In the immediate term, the principal receiving countries can dramatically increase the number of training spots in their own schools of medicine and nursing, as some countries (the UK, Canada) are beginning to do.
3. All receiving countries can make better use of foreign-trained HHR or nationals who have trained abroad owing to limited annual enrolment in medicine and nursing, primarily through enhanced short-term training programs to bring training received abroad to domestic standards.

4. Many receiving countries, like many source countries, often have HHR shortages co-existing with unemployed domestically trained HHR, particularly nurses. Improving working conditions for HHR would increase retention of the domestic supply, reducing the pull on the foreign-trained supply.

Recommendation 8: Improve enforcement of ethical codes of conduct in recruitment

1. Most OECD countries with Commonwealth membership have endorsed the Commonwealth Code of Practice for the International Recruitment of Health Workers. Those that have not should be persuaded to do so. Adopted in 2003, the code represents a set of guidelines for the international recruitment of health care professionals that takes into account the potential impact of such recruitment on services in source countries. The UK has attempted to implement aspects of the code in its bilateral agreement with South Africa and a number of other countries. Other recipient countries should attempt the same. In essence, the code:
   • discourages targeted active recruitment
   • discourages recruitment of health care workers who have an outstanding obligation to their country
   • encourages mutuality of benefits where receiving countries provide something in return (e.g. technical assistance, compensation, transfer of technology, financial assistance)
   • calls for the facilitated return of recruits for those wishing to return
   • calls on governments to set up regulatory systems for recruitment agencies and to implement mechanisms to detect non-compliance.

2. Other codes of conduct exist which can also be called upon and enforced, such as Melbourne Manifesto, a code of practice for the international recruitment of health care professionals adopted by delegates to the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) meeting in Melbourne, Australia, in 2002.

Recommendation 9: Create bilateral agreements

1. Bilateral agreements represent a stronger option than ethical codes, and could be used to regulate the recruiting process and ensure that the standards set forth in these codes are respected. Moreover, such agreements between source and receiving countries could ensure that the costs of migration are borne by the receiving and not the source country (or migrating individual). They could ensure that measures are in place to improve return flow or otherwise increase the knowledge or financial contributions of the Diaspora back to their home country. Both States parties to these agreements must commit the human resources and funds necessary to monitor their proper implementation of the agreement and address gaps that may arise in their provisions.

Recommendation 10: Improve return or two-way HHR flows

1. Receiving countries should consider setting up time-limited visas that would allow professionals to work for a few years only, to increase the likelihood of them returning home with expertise and savings.

2. Bilateral agreements could be negotiated to guarantee the positions of foreign-trained HHR in their adopted country, if they choose to return home for a period of service. Such agreements could ensure that naturalization processes, pension, salary and non-financial benefits are not compromised by such service returns.

3. Facilitating equal two-way staff flows would minimize the negative health externalities of
HHR flows. These exchanges of health professionals between countries would ensure that source countries would not experience a loss of staff and would benefit from new knowledge brought by health practitioners from recipient countries. Longer-term HHR placements from receiving countries would require guarantees of positions on their return. They also may require additional financial assistance for the period when the salary earned abroad is insufficient to maintain pension, benefits, household, family or other costs back home.

Recommendation 11:
Commit to the Global Health Workforce Alliance

1. The Global Health Workforce Alliance (GHWA) was officially launched in May 2006. It is dedicated to identifying and providing solutions to the global health workforce crisis. The Secretariat is provided by the WHO. It consists of five task forces or working groups (such as on health financing and advocacy) and brings together various partners including national governments, financial institutions, professional associations and civil society. The GHWA provides an innovative and global means of focusing activities related to the health workforce crisis that may provide greater coherence and efficiency.  

Recommendation 12:
Increase contributions to the health systems of source countries

1. Multi-year agreements to top-up salaries of HHR in critically affected source countries can reduce push factors while also avoiding problems associated with Medium Term Expenditure Framework ceilings on public salary spending. The moral hazard of such countries’ dependence on external funding sources is less than the moral hazard of ignoring the health crises many of these countries face. Agreements can include provisions to minimize the fungibility problem of such transfers. Such transfers could be based on estimates of the “perverse subsidy” of past (and ongoing) HHR flows from poor to rich, and from unhealthy to healthy. Donor nations not already doing so should commit to a timetable to reach their long agreed upon 0.7 per cent/GNI-ODA target. Commitments to improve coherence in aid programs/policies, untying of aid, aligning aid with the MDGs and ensuring that health assistance fits with the public health plans of aid-recipient countries should similarly be fully enacted. Donor nations should also adopt the 2006 World Health Report’s recommendation that 50 per cent of health aid be ring-fenced for HHR improvement, of which 50 per cent should go into training. Such assistance should be understood as fulfilling obligations under human rights treaties and multilateral development commitments. It should be given over a period of years on a regular basis.

2. Increases in donor funding must be paired with improved coherence of funded initiatives. Multiple and disassociated donors working in different areas mean efforts lack coordination. Donors should seek better coordination so that each knows what others are doing. Donors must also recognize that resolution of health systems crises demands their long-term commitment which is not typically the timeframe they apply.

3. Developing bilateral tax agreements with source countries could increase public-good financial flows without undermining the private welfare nature of personal remittances. Under these agreements, all or part of the taxes paid in receiving countries by HHR émigrés can be paid to the public health or health training systems of their home countries.

4. Other tax incentives could be developed to encourage private remittance flows for public-good health-related purposes. This could include allowing health professionals to claim remittances as expenses on taxes (in effect reducing their taxable income), or establishing

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45 For more information, visit: http://www.ghwa.org/.
46 Examining the legal and policy nuances of such agreements are beyond the expertise of the authors and scope of this paper. Determining the feasibility of this recommendation, which was opened to discussion in different meetings in which the authors participated, requires further investigation by those with specialized knowledge in this area.
equivalent-to-charitable-status exemptions for contributions to public or not-for-profit health services in their home country.

**Key strategies for regional and international institutions and mechanisms**

**Recommendation 13:**
**Ensure human rights monitoring**

1. Human rights treaty bodies and other monitoring mechanisms (such as the Special Rapporteur on Health) can request States to report on, and recommend, measures they are implementing to reduce the factors pushing health workers to emigrate.

**Recommendation 14:**
**Ensure instruments and bodies are in place and able to monitor actual HHR flows**

1. An acknowledged deficiency in the effort to resolve problems related to health worker migration is the lack of accurate data on the actual flows (including return flows). Regional health organizations, such as PAHO, or regional organizations such as the Commonwealth Secretariat, can improve their monitoring mechanisms. The global monitoring function of the Global Health Workforce Alliance also should be supported.

**Recommendation 15:**
**Develop cross-border public health care**

1. To the extent that it can be managed to ensure equitable access to HHR flows, the system evolving in the European Union could provide a model more globally. But this would only be so if a large number of countries agree to some form of supra-national regulatory framework for such flows premised on increasing global, and not simply national, equity in health services access. The premise here is that public systems have generally done a better job at increasing equity in access across economic groups; and that, while a global private health care system is rapidly evolving, there is no similar global public health care system.

**Recommendation 16:**
**Re-examine the macroeconomic conditionalities that impede health care expansion in least developed and low-income source countries**

1. Medium Term Expenditure Frameworks that restrict growth in public sector spending could impede the capacities of these countries to develop financial and non-financial retention incentives for their HHR, or to employ the number of HHR needed to reduce their burdens of disease. The rationale for MTEFs in controlling inflation may no longer be necessary. Whatever approach to fiscal discipline in public expenditure planning is used, it should explicitly safeguard increases in health and other sectoral spending essential to providing greater equity in access to the social determinants of health.
Case Studies

Eight countries were selected as case studies to demonstrate the spectrum of health worker staffing situations and actions taken either to retain them in source countries or to ease or manage their entry in receiving countries. In the first case, four African countries were selected because sufficient information exists to form a picture and because they highlight the impact out-migration has had on their health systems, thus demonstrating the link between equity and the social determinants of health. The case studies of the three principal receiving countries (the UK, the US and Canada) demonstrate the different ways receiving countries can act to manage migration and the different degrees of commitment they have to managing migration and reducing the impacts on source countries.

We also examine the very different efforts of two countries – Cuba and the Philippines – which explicitly seek to export their health professionals. Lessons are extrapolated from their different actions and efforts which inform the options we consider in this paper as a means of managing health worker migration in future.

Zimbabwe

Zimbabwe has been losing many physicians and nurses to migration over the last few decades at an alarming rate, with little sign of slowing down (Chikanda, 2005a) (Chikanda, 2005b). In 2004 Zimbabwe had a 40 per cent vacancy rates for nurses and 55 per cent for physicians (Gerein et al., 2006a). The country as a whole, including medical centres, faces enormous basic challenges such as inadequate electricity and clean water supplies. In addition, rural health centres in Zimbabwe often lack basic drugs and equipment and are severely understaffed. This translates into a heavy workload for the few health professionals posted in such areas. Because of such factors, health professionals in rural areas move to urban areas. Yet others move to the private sector (the reverse rarely happens) and consequently the staffing situation in the public health system is worsening. This frail public health system is further undermined by Zimbabwe’s hyperinflation and chaotic political environment.

A study of 157 nurse professionals employed in the Zimbabwean public health sector was conducted to establish factors that might help the retention of nurses in the country (Chikanda, 2005b). Over three-quarters of those interviewed said better pay and fringe benefits would influence them to remain working in the country. Additional factors included improved health facilities and resources and a more reasonable workload. These findings are not particular to Zimbabwe, but characterize the reported intentions of many southern African health trainees reported earlier.

The high rate of emigration from Zimbabwe has led the government to adopt several measures to try and contain the problem. The first was the introduction of bonding of newly qualified health professionals. All the nurses and doctors who started training in 1997 are bonded by the government for three years. In the case of doctors, they are given their academic certificates while their practicing certificates are withheld for the three-year period of the bond. Some newly qualified doctors reportedly leave with their academic certificates alone for countries where practicing certificates are not mandatory. Others are serving the duration of the bonding period and then leaving, although precise numbers are not available.

A second measure has been the introduction of a nursing grade new to Zimbabwe – the state enrolled nurse who has two years of training rather than the three required of the state registered nurse (de Castella, 2003). This lowers the production cost and time, and reduces the likelihood of qualification abroad, hence the pull on emigration. Fellowship and scholarship programs, as well as advanced training programs, have also been introduced with the intention of reducing the migration of health pro-
professionals wishing to further their studies abroad. A fourth measure was the introduction of salary reviews intended to cushion health professionals from the harmful effects of the country’s high cost of living. However, with the country’s current hyperinflation, these salary reviews are constantly lagging behind.

As a fifth measure to cope with the HHR crisis, the Ministry of Health ordered the University of Zimbabwe’s medical school to train over 200 doctors a year – three times as many as they used to – which the school must do with less staff than they had previously. Professors worry that the government’s insistence on quantity has compromised the quality of teaching and the greater intake numbers have seen the calibre of individual students fall (de Castella, 2003).

Finally, “call allowances” were introduced to allow professionals to work extra hours due to staff shortages, with better allowances offered in rural areas. Call allowances have to some degree helped to retain staff, although there have been complaints about unpaid allowances, and doctors have gone on strike action over them.

Zimbabwe has also tried to alleviate its shortage by recruiting foreign health professionals. In an agreement between Zimbabwe and Cuba, 117 Cuban doctors came to practice in the country in 2002. Most key informants in one study on the exodus of health professionals were sceptical of the role played by the Cubans, arguing that, while they eased staff shortages and improved quality of care, teamwork was difficult due to language barriers. Spanish-speaking Cuban doctors posted in rural areas had difficulty discharging their duties because of communication problems. Having already been offered bonuses for working in Zimbabwe, the Cuban doctors would also return home annually at the Zimbabwean government’s expense, a significant drain on the country’s scarce resources (Chikanda, 2005a).

Apart from the hyperinflation and chaotic political environment of present-day Zimbabwe, another push factor is the country’s comparatively low spending on health. Zimbabwe’s 2003 public expenditure on health (as a percentage of overall public spending) was 9.2 per cent, still substantially below the Abuja Accord which called on African countries to increase public spending on health to 15 per cent of all government expenditures. Moreover, this represents a slight decrease in total expenditure on health over the last half decade, calling into question the intention to meet the recommended 15 per cent (World Health Organization, 2006).

South Africa

South Africa is in a new and unenviable position. It has traditionally been a country that both sends and receives migrants, but its rate of export of human capital is now far higher than its rate of import (Stilwell et al., 2003) (McDonald & Crush, 2002).

Between 1990 and 2005, 19,500 students graduated from South African medical schools. But in this period the number of registered doctors rose by only 9,304. Moreover, around 15 per cent of these were foreigners who obtained their qualifications outside the country. This means that a large proportion of South African medical graduates leave the country and fail to register to practise in South Africa at all. Some researchers have estimated this proportion to be as high as 50 per cent (Paton, 2006). There are a number of explanations for this abysmal retention rate of newly trained doctors. For instance, doctors end their training with large debts and the pressure is on for them to recoup their costs. Private practice in urban areas has filled up and few find it desirable or even practical to enter practice in rural areas. As well, reductions in medical positions mean the possibility of promotion for young people coming into academic medicine is minimal or non-existent (Paton, 2006).

The head of National Nursing Services for Netcare – one of the largest private hospital companies in the country – reported that over 25 per cent of the 90,000 registered nurses in South Africa left the country in 2002 alone (Naidoo, 2000). In addition, the South African Nursing Council received about 300 queries a month from nurses who have registered or who are querying about registration overseas (Naidoo, 2000).

South Africa encourages the use of bilateral arrangements to manage migration of health care workers, the Memo of Understanding between South Africa and the UK being a prominent example (Mafubelu, 2004).
Another strategy adopted by South Africa to overcome its HHR crisis has been the 2003 decision making it possible for foreign qualified physicians to obtain registration without necessarily sitting for examinations. This enables eligible doctors to work more easily in South Africa in order to assist with the current crisis in rural hospitals. Non-South African qualified physicians are assessed by the Examinations Committee on the basis of qualifications, experience and, if necessary, interviews. On that assessment, the committee decides if a candidate needs to write an examination for their competence to be confirmed, or whether there is enough evidence for them to be registered immediately. Those who are registered immediately are typically physicians from developed countries with recognized medical education and appropriate post-internship experience. They are allowed to enter the public service only and registration is restricted to three years, although this is potentially renewable. The Rural Doctors’ Association of Southern Africa (RuDASA) believes this strategy has great potential to improve the staffing situation in rural hospitals (Couper, 2003).

In August 2005 South Africa also announced it would take steps to bring home some thousands of its health professionals currently working in Western countries, adding that developed countries could no longer rely on poaching health staff from developing countries, and pointing the finger at the UK, Australia and the US as the biggest “poachers”. In 2006 the South African Department of Health produced a human resource development plan – the first in 60 years. The plan aims to double the number of doctors coming out of medical schools each year as well as improve working conditions and salaries. Unfortunately the plan neglects to say how this will be achieved (Paton, 2006).

At the same time, there is a considerable pool of all health professionals in the country who are unemployed. For instance, between 1996 and 2001 there were 32,000 vacancies in nursing in the South African public sector and the OECD estimated that, within the country, there were another 25,000 registered nurses who were inactive or unemployed, pointing to problems other than migration affecting the health sector (Gent et al., 2006). South Africa is not the only country to suffer from this ironic situation, demonstrating again that underlying problems in HHR planning, management and funding are also significantly to blame for the current crisis.

South Africa’s public spending on health care is still below the 15 per cent Abuja Accord target, but has risen slightly from 9.5 per cent of total public spending in 1999, to 11.8 per cent in 2003 (World Health Organization, 2006). Of our SSA country case studies, it is the only one moving towards, rather than away from, the Abuja target.

**Zambia**

International migration of skilled and highly skilled Zambians increased rapidly in the last 10 years. The health sector is the most affected by the brain drain. A series of recent reports issued by the Ministry of Health shows that the loss of health workers in the public sector is reaching staggering levels. In 2003 only slightly over half of the medical, nursing and paramedical posts were filled in public health establishments (Ammassari, 2005). Another 2003 study conducted by USAID suggests that, out of the more than 600 doctors trained in the years after independence in 1964, only 50 remain in the country (Ammassari, 2005).

Initially the main destinations of Zambian health workers were more advanced countries in the region, such as South Africa, Botswana and Namibia. These countries continue to attract, but growing numbers of health workers are moving directly overseas to Europe, North America, Australia and New Zealand. Hardly any return migration is reported. The country currently has only half the doctors and nurses it needs and will only be able to build up its reserves again if working conditions are improved (Moszynski, 2006).

Zambia presents an important case for another reason. Complying with structural adjustment reforms imposed by the World Bank and the IMF as conditions to receive loans, grants or debt relief has exacerbated its health problems (Labonte, Schrecker, &

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47 This is also reportedly the case in Kenya. (T. McVeigh, “Nurse exodus leaves Kenya in crisis”. The Observer, May 21, 2006; available at: http://observer.guardian.co.uk/world/story/0,1779773,00.html. A recent mapping exercise of all public health workers in that country showed (predictably) poor HHR deployment, with severe understaffing of some 3,000 nurses in poorer rural provinces, using standardised staffing level norms established by the country’s Department of Health in 1992. It also found that payment errors (primarily allowances to which recipients were not entitled) was equal to salaries for 750 – 1,000 more nurses (James and Muchiri, HR mapping of the health sector in Kenya, HLSP Institute, September 2006; available at: www.hlspinstitute.org.
Gupta, 2005), undoubtedly contributing to its health professional exodus. Its attempts to curb this exodus are also hampered by ongoing conditionalities. Under its requirements for a MTEF, the IMF required Zambia to restrict its government payroll bill to 8 per cent of GDP. Partly to prevent professionals from leaving the country, and to retain desperately needed teachers and health workers, wage packets and supports caused Zambia’s payroll bill to climb to 8.4 per cent of GDP in 2003. As a result, it was suspended from debt-relief in 2003, requiring it to pay US$377 million in debt servicing costs, US$247 million of which actually went back to the IMF. Zambia was reinstated into the debt-relief program in 2004 when a combination of fiscal austerity and export earnings dropped the wage ratio to 7.8 per cent of GDP – but not before the Netherlands government donated US$10 million to pay for more teachers to keep the wage ratio within IMF prescribed guidelines (Gaynor, 2005).

In April 2006 Zambia was able to scrap the user fees that had been introduced in the early 1990s under pressure from the IMF. The user fees had made health care in poor rural areas in particular largely inaccessible to millions of people living under the poverty line in one of Africa’s poorest countries. Zambia was able to scrap the user fees using money from debt relief (US$4 billion) and increases in aid agreed at the July 2006 G8 Summit in Gleneagles (Moszynski, 2006), now known as the “multilateral debt relief initiative”. The user fees, however, were only lifted in rural areas and not urban centres because, as in South Africa, Zambia’s intent is to give priority to improvement of the health of rural populations.

Surprisingly the total number of applications for nursing training has risen significantly in Ghana. For example, in one school the number of qualified applicants rose from 400 in 2003 to 2,000 in 2004. Lack of capacity meant that less than 200 qualified applicants obtained admission. Even this modest figure was made possible by the Government of Ghana’s efforts to double admissions into nursing schools. It is suggested in this report that the rapid rise is due to individuals being increasingly informed about the opportunities and scope for migration. Indeed, “[b]etter qualified women are going into nursing than before, as an investment in leaving the country.” (Mensah et al., 2005)

There is no accurate or detailed assessment available of remittances from health workers, though nursing focus group respondents felt that there were visible signs of nurses working abroad who are returning to invest in building homes, starting small businesses for their families and providing support for their families in Ghana. Physician focus groups, on the other hand, were not aware of significant levels of remittance or returns by physicians (Labonte et al., 2006).

A number of strategies to reverse the HHR crisis have been developed and implemented with mixed results. The Nurses and Midwives Council has instituted a policy that withholds verification of nurses’ certificates until they have worked for at least two years in Ghana after registration. In addition, all health staff trained

Ghana

Vacancy levels in the Ghana Health Service demonstrate a health care system in crisis. In 2002 there was a nearly 50 per cent shortfall in doctors and 57 per cent shortfall in professional nurses (Mensah et al., 2005). A 2002 memo issued on the matter by the Director-General of the Ghana Health Service indicated that more Ghanaian doctors worked outside of Ghana than within. Although the government has increased expenditure on its health sector by 30 per cent in recent years, it has not prevented increases in infant and child mortality (Nyonator, Dovlo, & Sagoe, 2004). The predominant countries of destination of Ghanaian doctors, ranked in order, are the US, UK, South Africa and Canada. For nurses leaving the country the ranking is the UK, US, Canada and South Africa. One article reported that in the past decade the country has lost 50 per cent of its nurses to Canada, the UK and the US (Mensah et al., 2005). Country preference was reported to depend on factors that include ease of registration with professional bodies, and additional costs such as exam fees and airline tickets.
at government expense is expected to be bonded for an unspecified period (three to five years) or to refund training costs. However, a general impression of our southern African research colleagues is that bonding has been a failure in Ghana. This is blamed on poor compliance and the ease with which one can buy out the bond because high inflation reduces their cost. In other instances, recruitment agencies or overseas employers agree to buy out the bonds.48 Similar findings emerged from a recent study of HHR policies in SADC countries, notably Malawi (Gilson et al., 2005).

Like Tanzania, Malawi and Mozambique, Ghana has also considered the use of auxiliary health workers as an immediate response to the workforce crisis. Resistance from the health professions, such as doctors and midwives who seek to retain their status, has limited the number and roles of these substitutes (Dovlo, 2005a).

A deprived areas incentive allowance was introduced in 2004, offering an additional 30 per cent of a health worker’s salary. The allowance, however, was introduced without adequate consultation to encourage health workers to stay in deprived areas and many workers feel the bonus is still too low (Sagoe, 2005).

Since 1992 Ghana has had to recruit Cuban health workers on temporary contracts. In 2005 there were 222 Cubans on two-year placements in the country, and in the Upper East region there are three times as many Cuban as there are Ghanaian doctors.

At the same time, of all countries included in our SSA case studies, Ghana’s distance from the Abuja Accord remains the greatest. Its health spending as a percentage of total government expenditures fell from 7.8 per cent in 1999, to just 5 per cent in 2003 (World Health Organization, 2006). While these data do not discount the need for global ameliorative policies discussed in Section H, they do implicate national governments in managing better their public health systems and expenditures to minimize the push on their HHR.

48 This latter statement is based on anecdotal accounts heard at several meetings on HHR issues in SSA. We have been unable to find published literature that would verify or deny this statement, which should thus be viewed as speculative rather than definitive.

49 There is some evidence that African countries losing the highest proportion of physicians are not necessarily those in the worst condition (Clemens, 2006). Heilman (2006) explains this as the ‘development hump’ model, in which low-income countries with some trajectory of improvement are able to create the human capital that is both desirable in a global labour marketplace, and possesses the network and financial capacities to initiate migration. This does not mean that poorer populations within slightly better off developing countries do not bear the brunt of this HHR outflow; nor does it capture the potential for these slightly better off developing countries becoming magnets drawing in HHR from their poorer neighbours.

Canada

Historically Canada has depended rather heavily on foreign-trained physicians to staff its health system. In 2004, 22 per cent of licensed physicians in Canada were foreign-trained. Like the US and UK, Canada has become a key recipient of physicians trained abroad. While the immigration of health and other professionals to Canada is not new, what has changed in recent decades is the number of physicians coming from developing countries which themselves are facing severe health human resource shortages, the number of SSA-trained physicians working in Canada having notably increased over the last decade. In other words, Canada is receiving more and more physicians from the region which can least afford to lose them.49

Some provinces are more reliant than others on foreign-trained physicians. Quebec has the lowest percentage of foreign-trained physicians at 10.8 per cent. The low percentage is likely due to the fact that Quebec, as a francophone province, seeks to recruit primarily French-speaking professionals. Saskatchewan has the highest number at 52.1 per cent, with the next highest being Newfoundland and Labrador at 41.4 per cent (Canadian Institute for Health Information, 2006). The Canadian Medical Association estimates that nearly 400 foreign-trained physicians arrive in Canada each year, with pre-arranged employment and already licensed to practice (Schumacher, 2005). Others seek licensing and employment after arrival.

The majority of foreign-trained graduates practice family medicine, largely outnumbering foreign-trained clinical, laboratory and surgical specialists combined in all but one province (Canadian Institute for Health Information, 2005). This does not necessarily mean that all are trained in family medicine as the greater majority come to Canada with specialized training and experience (Justus, 2005). However, they are only, or more easily, able to find work in family medicine. Foreign-trained physicians also are more...
likely to work in rural areas of Canada. In 2004, 26.3 per cent of all physicians in rural Canada were foreign-educated, compared to 21.9 per cent in urban areas (Canadian Institute for Health Information, 2006).

Eight provinces in Canada now have a Provincial Nominee Program (PNP) that allows them to fast track immigration for individuals with skills recognized to be in short supply. The program varies slightly between provinces but in essence it is an agreement that allows provinces to nominate individuals to the federal government which oversees immigration in Canada for landed immigrant status. In most provinces, foreign-trained health professionals and other skilled professionals falling within the program can only be nominated when it has been evidenced that a position cannot otherwise be filled by a Canadian. Thus, in approving a nomination, the Canadian government is accepting the argument that there is an absence of equally skilled Canadian-trained health professionals. Shortages in health care professionals exist within each province, but some provinces (notably British Columbia and Saskatchewan) have implemented a special stream of the PNP specifically for medical professionals. As Table 4 below demonstrates, there have been dramatic increases in skilled professionals entering Canada in this program over a very short time. (Note that these data cover all skilled and not just health professionals.)

Between 1986 and 1993 the Canadian International Development Agency (CIDA) funded a program to support the training of Caribbean nurses and nursing faculty. Canadian schools of nursing were twinned with hospital-based nurse training programs in areas of identified need in the Caribbean. The objective of the program was to help develop curricula and professional and teaching practices to bring them up to recognized international standards. The greatest challenge perceived by the Canadians was that some of the teaching facilities were decades out of date and that there was often insufficient equipment and resources.

The Canada-Bound Pilot Program, bringing Caribbean nursing students to Canada for training, has since replaced the CIDA program which ended in 1993. The Caribbean students, who are eligible to apply for Canadian student loans, are expected to pay tuition in order that Caribbean tax dollars are not funding nurses who will subsequently be earning relatively high salaries in Canada. The success of the program requires cooperation and placement commitments from selected Canadian employers as well as provincial nursing associations and certification authorities. The program then facilitates the return migration of the graduates by providing incentives to return to their home countries. Incentives include moderate financial incentives and opportunities to work or teach in the joint Caribbean-Canadian program (Grynberg, 2005).

Table 4: Intake of nominees for all provinces with provincial nominee programs

<table>
<thead>
<tr>
<th>Province</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newfoundland</td>
<td>0</td>
<td>35</td>
<td>38</td>
<td>37</td>
<td>171</td>
<td>281</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>44</td>
<td>141</td>
<td>195</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>22</td>
<td>71</td>
<td>105</td>
<td>146</td>
<td>161</td>
<td>505</td>
</tr>
<tr>
<td>Manitoba</td>
<td>1,095</td>
<td>973</td>
<td>1,530</td>
<td>3,116</td>
<td>4,048</td>
<td>10,762</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>37</td>
<td>41</td>
<td>73</td>
<td>173</td>
<td>323</td>
<td>647</td>
</tr>
<tr>
<td>Alberta</td>
<td>19</td>
<td>19</td>
<td>24</td>
<td>178</td>
<td>426</td>
<td>666</td>
</tr>
<tr>
<td>British Columbia</td>
<td>13</td>
<td>24</td>
<td>206</td>
<td>441</td>
<td>598</td>
<td>1,282</td>
</tr>
<tr>
<td>Total</td>
<td>1,186</td>
<td>1,174</td>
<td>1,986</td>
<td>4,135</td>
<td>5,932</td>
<td>14,413</td>
</tr>
</tbody>
</table>

Note: One province (Manitoba) records particularly high intake because it adopted the program more rapidly than did others.
United States

Many more nurses now have the option of moving to the United States following passage of a US law in early 2006 which approves 50,000 new visas for nurses and their family members. This law was passed just a year after the Department of Labor abolished the time-consuming process of labour certification for foreign nurses migrating to the US, which required assurances that wages and working conditions of US workers would not be adversely affected by hiring foreign nationals for these positions (Chaguturu & Vallabhaneni, 2005). In short, the country is taking measures to ease the immigration of health workers. This is occurring because of the current and predicted shortages in the American health workforce. In 2005 there were 126,000 nursing positions unfilled in the US. This is expected to rise to 1 million by 2020. For physicians, Cooper et al. projected a significant shortage of physicians – particularly specialists – over the foreseeable future (Cooper, Getzen, McKee, & Laud, 2002). Other researchers have expressed concerns about the assumptions and conclusions used by Cooper et al. (Barer, 2002) (Grumbach, 2002) (Reinhardt, 2002), but a growing consensus is that over the next 15 years requirements for physician services will grow faster than supply – especially for specialties that predominantly serve the elderly.

It is suggested the principal reasons for the predicted shortage in physicians is American economic expansion, which directly affects the volume of health care services and, therefore, the demand for physicians. Other factors are the reduction in the hours of work by physicians, the increasing size of the elderly population, and the growth of the total population (Cooper, 2002).

Reasons given in the case of the shortages of nurses include:

- baby boomers are growing older and their medical needs are increasing
- demands on nurses, partially as a result of shortages, have led to career burnout with as many as 20 per cent of nurses retiring early
- declining enrolment in nursing schools (Chaguturu et al., 2005).

In fact, as with many SSA source countries, many receiving countries – including the US and Canada – have reasonably large numbers of qualified health professionals not employed in the health sector, particularly in nursing. The number of RNs in the US not working as nurses, by one estimate, is roughly two-thirds of the anticipated future shortage (Obrien-Pallas, 2005). At least some health workers in receiving countries are being pushed out of their profession (albeit not always out of their country) for reasons of overwork, understaffing, stress and shift-work arrangements that make work/life balance hard to maintain. Reducing staff shortages in recipient countries, then, entails more than simply increasing numbers of domestic trainees.

Recently a private American-owned International University of Nursing has been established in St. Kitts and Nevis with the blessing of that country’s Minister of Health. This initiative is said to “enhance nursing training capacities to bridge the gap between supply and demand in nursing education in the United States” (Schmid, 2006). While there has been verbal mention of other such private American training institutions being set up in less developed countries, we were not able to confirm their existence. However, this option – training nurses in developing countries to work in the wealthy country that established the training program – has been raised on a number of occasions as one way to manage migration. The expectation is that some graduates of the program will stay in their country and no nurses from the domestic training programs will be poached.

United Kingdom

The UK is notable not only as a significant receiving country, but also for its NHS Code of Practice, adopted by the Department of Health and intended to prevent health worker immigration from developing countries, and to end active recruitment from countries in need ([UK] Department of Health, 2001). Specifically, the code:

- applies to all health professionals
- states that NHS employers are responsible for implementing the code and managing the list of commercial agencies that adhere to the code
• states that recruitment agency that wishes to supply the NHS must comply with this code
• requires that developing countries not be targeted for recruitment
• stipulates that active recruitment may only occur where bilateral agreements between countries exist
• restricts such recruitment from over 150 developing countries which must not be targeted for recruitment under any circumstances.

Despite the code and a case study report that none of the organizations actively recruited from developing countries, the inflow of nurses from developing countries on the proscribed list (e.g. Sub-Saharan Africa) continued to be significant (Nullis-Kapp, 2005). At least this was the case until mid-2006 when the UK applied restrictions across the board on the hiring of all foreign-trained nurses. This restriction required nationals or European Economic Area (EEA) citizens to be considered first for any vacant positions and froze the recruitment for many vacant posts (UK Department of Health, 2006) (Hall, 2006).

There are a number of passive recruitment forms which contribute to increasing numbers of international health workers going to the UK that do not break the NHS Code of Practice. A recent article on nursing in the UK by Buchan and Dovlo found “[m]any nurses reporting that they initially worked in the UK for private sector employers (not regulated by the Code of Practice because the employers are not NHS) before moving quickly, sometimes immediately on completion of adaptation, to work in the NHS” (Buchan & Dovlo, 2004). Another loophole is that individuals who volunteer themselves by individual application may be considered for employment. This creates a grey zone in which immigration policies may facilitate or permit the immigration of these individuals who then need only present themselves to recruitment agencies. The article also acknowledges the increased access to employment opportunities created by the Internet. Health workers in developing countries have become more aware of employment opportunities in developed countries because of access to recruitment agency and employer web sites (Buchan et al., 2004).

The major limitation of the code is that it did not cover the private sector which continued to recruit from countries on the proscribed list. However, in December 2004 UK Health Minister John Hutton announced that the government would toughen the code. The new code came into force at the end of 2005. It continues to prevent NHS hospitals from actively recruiting professionals from developing countries but extends the obligations to the private (independent) sector and to the employment of temporary and locum staff for the first time, thus closing a major loophole. The revised code will mean the private sector will have to act more ethically. All independent sector companies providing NHS care will sign up to the code of Practice as a condition of their NHS contracts. The code also will be extended to cover 200 more recruitment agencies, and include agencies that supply domestic staff to the NHS.

In April 2006, however, this new and improved code became nearly meaningless when the Home Office announced that it make changes to the UK’s immigration regulations. Since that time, the majority of foreign-trained health workers applying for training posts are required to have a work permit. To obtain the permit, trusts need to demonstrate that there are no suitable EEA nationals to take up vacant posts in their stead (British Medical Association, 2006). This news was followed in July 2006 with other news: the UK no longer had a nursing shortage and nurses would be taken off the list of shortage occupations, which would mean a reduction in hiring of foreign-trained nurses.50 The UK example therefore demonstrates the fickleness of labour markets and health sector policy, and the quick impact it can have on health workers in other countries who might have hoped to gain higher salaries in traditional receiving countries. It underscores the importance of better designed and implemented domestic HHR planning.

**Cuba**

Between 1980 and 199551 Cuba saw a 14.2 per cent increase in medical graduates while graduates in the field of economics, engineering, law and agriculture decreased, in some cases substantially. In 1995, 23.5 per cent of total graduates specialized in medicine.

51 While Castro’s initiatives date earlier than 1980, the author reviewing these percentages begins his comparative study starting from this year.
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(compared, for example, to 3 per cent in Indonesia and 4 per cent in Hong-Kong.). Paradoxically Cuba has had very little population growth during this period – indeed the lowest rate of growth in all of Latin America. The global evidence reveals that Cuba is generating an oversupply of graduates in the field of medicine (Madrid-Aris, 2002).

Whether this over-production is intentional or a result of poor policy implemented by the Cuban central planning system, the Cuban government has dealt with this surplus by sending health workers worldwide. Between 1963 and 1999, 41,400 Cuban physicians and nurses were sent to other countries, surpassing the number sent by the WHO in the same period. Many of them work throughout Latin America and Sub-Saharan Africa (Madrid-Aris, 2002).

There are at least five bilateral agreements — with South Africa, Zimbabwe, Chad, Jamaica and Venezuela — in which Cuba agrees to provide doctors, according to our literature review. These reports have done little more than acknowledge their existence. Aside from our earlier study of the Venezuelan case, we have found very little analysis of the impact or success of these agreements, although some problems have been alluded to.

Cuban workers, for example, often come at a high price. In Chad, where 100 Cuban health workers (mostly physicians) were temporarily hired in 2005, strong financial incentives were required to attract them and interpreters were often also required (ID21 Insights Health, 2005). The economic cost of the Cuba-South Africa Agreement runs high as well. In 2001 the cost to the Eastern Cape alone amounted to ZAR 1.8 million (approximately US$250,000) per month for 95 Cuban doctors (Hammet, 2003). On an individual basis, the cost is almost twice that of a monthly starting salary for a newly trained South African doctor. The high costs do not reflect high pay for Cuban doctors. Rather, doctors working abroad under these agreements are quasi-indentured since much of their pay goes to the Cuban government rather than paid directly to the doctors (Martin, 2003). Thus, Cuba's massive doctors-for-hire campaign, in addition to its “sun surgery” offered to tourists within the country (Hammet, 2003), is proving to be a major asset, bringing in significant funds and hard currency.

However, unlike other source countries and particularly the Philippines, Cuba's domestic health data portray a decidedly different picture (Table 5).

### The Philippines

The Commission on Filipinos Overseas estimates that more than 7.3 million Filipinos (approximately 8 per cent of the country’s population) reside abroad. The Government of the Philippines has encouraged temporary migration by its professionals in recent years and taken measures to turn its remittances into an effective tool for national development by

<table>
<thead>
<tr>
<th></th>
<th>Cuba</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health spending as % of GDP (2003)</td>
<td>7.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Public health spending as % of overall public spending (2003)</td>
<td>11.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Percent of overall health spending that is private (2003)</td>
<td>13</td>
<td>56</td>
</tr>
<tr>
<td>Physicians/1,000 population (2003)</td>
<td>5.9</td>
<td>0.58</td>
</tr>
<tr>
<td>Nurses/1,000 population (2003)</td>
<td>7.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Life expectancy at birth (2004)</td>
<td>78</td>
<td>68</td>
</tr>
<tr>
<td>Under-five mortality rate/1,000 (2004)</td>
<td>7</td>
<td>34</td>
</tr>
<tr>
<td>GDP/capita (2004 in constant US$)</td>
<td>2,798*</td>
<td>1,088**</td>
</tr>
</tbody>
</table>

encouraging migrants to send remittances via official channels. In 2004 the Central Bank of the Philippines reported total remittances of US$8.5 billion, representing 10 per cent of the country’s gross domestic product (GDP) (United Nations Department of Economic and Social Affairs, 2005).

The Philippines is very significant in terms of its number of nurses employed overseas and its pro-active approach to managing their migration (Abella, 1997). It established a specialized governmental agency, the Philippine Overseas Employment Administration (POEA), to formulate and oversee migration policy. Effectively it performs the functions of an international recruiter by marketing Filipino workers to potential employers, negotiating agreements, regulating private sector recruitment agencies and inspecting employment contracts prior to departure (Bach, 2003). The POEA has been held up as an example of the beneficial effects of a managed approach to migration and recognized for its protection of migrant workers’ rights (Brillantes, 1998). The managed approach of the Philippine government health worker training and export scheme builds in safeguards and maximizes remittances, but this may not necessarily accommodate other social priorities (Bach, 2003). A most obvious case in point is that the Philippines itself has a shortage of nurses (primarily in rural and under-developed regions). So the policy of encouraging employment overseas conflicts with domestic priorities (OECD, 2003). As with many African countries, the Philippines combines nursing shortages with under-employment or unemployment among its own domestic supply (Bach, 2003).

The recent concern has been that doctors are taking nursing courses to retrain as nurses as a result of the increased demand for nurses overseas. An estimated 4,000 Filipino doctors have already become nurses (Mendoza, 2005). The increased migration of nurse and doctors to overseas hospitals resulted in a severe shortage of doctors within the country. Of the roughly 1,600 private hospitals in the country, only 700 are now operational due to the shortage of nurses and doctors. The source says over 100,000 nurses – including former doctors – have left the Philippines in the last decade and are now working overseas (Mendoza, 2005).

The Philippine example also demonstrates the impact of pull factors. The traditional destination (pre-1990s) of Filipino nurses was the US. However, there was a period of relatively static outflow in the early to mid-1990s. This was due to significant retrenchment in the nursing workforce in the US as a result of funding constraints. New English-speaking destinations were sought. In 1998/1999 the UK reported registering only 52 nurses from the Philippines. Three years later it reported registering 7,235. Job opportunities and active recruitment changed the direction of the outflow (Buchan et al., 2003). Ong and Azores have also reported that many in the Philippines pursue nursing as a way to find better paying employment abroad (Ong & Azores, 1994).

Nearly 70 per cent of Filipinos working abroad are between 25 and 44 years of age. This drops sharply to 31 per cent over 45. Thus, a higher share of the most productive age group (25 to 44) of the country’s labour force is abroad which suggests loss, even for temporary periods, of those with significant experience and on-the-job training as well as supervisory potential (Alburo & Abella, 2002).


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