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UNPACKING THE BRAIN DRAIN IN SUB-SAHARA AFRICA THROUGH PUBLIC HEALTH LENSES: IMPLICATIONS FOR DEVELOPMENT AID

Andre M. N. Renzaho

ABSTRACT

Emigration of qualified health professionals from developing to developed countries, a phenomenon known as the brain drain or human capital flight, has become a dilemma for policy makers due to the complexity of the phenomenon and has implications in development aid assistance. It has become an issue of intense discussions in the human rights literature and has been linked to structural and economic factors. Developed countries have continued to poach scarce human resources for health that are sorely needed to meet the health challenges in Africa, and have exploited the phenomenon so much as to deprive Africa of millions of dollars worth of investments in human resources for health. Such exploitation has significantly contributed to the vicious circle of poor health and poverty and has contributed to many African countries being unable to meet the challenges arising from the HIV and AIDS epidemics and the Millennium Development Goals. There has been a plethora of papers examining the brain drain, but few have looked at the issue from a development aid perspective. In this chapter, we draw from the literature and experience to explore causes, patterns and long-term consequences of the brain drain in sub-Saharan Africa. The analysis provides information for policy makers to put in place measures geared toward bringing an end to or reversing the brain drain phenomenon and its consequences.

BACKGROUND

Emigration of qualified health professionals from developing to developed countries, a phenomenon known as the brain drain or human capital flight, has become a dilemma for
policy makers due to the complexity of the phenomenon. It has become an issue of intense discussions in the human rights literature and has been linked to structural and economic factors. The overall consequence of the brain drain phenomenon has been a shortage of health professionals in countries that need them most. In 2003 the World Health Organization (WHO) in its *World Health Report*, argued that “the most critical issue facing health care systems is the shortage of people who make them work” (World Health Organization, 2003). Although the term skilled health professionals is broadly used to include doctors and nurses, there are three categories that characterise health professional emigrants (Kirigia et al., 2006): scientist trainees and public health specialists trained in developed countries but who decide against returning to country of origin when they complete their degrees (see excerpt 1); health professionals who get bursaries to get advanced training in specialised fields in developed countries who return home when they complete their degrees and emigrate soon after partially fulfilling their obligations; and health professionals who complete their degrees in local universities and emigrate to developed countries soon after completing their degrees. Thus, understanding the cause and consequences of the shortage of health professionals is a complex and multi-dimensional exercise. Drawing from some of the author’s own sub-Saharan cultural origin, migration experience, and professional background, complemented by an extensive literature review, the paper explores causes, patterns and long-term consequences of the brain drain in SSA. Such an analysis provides critical information for policy makers to put in place measures geared toward bringing an end to or reversing the brain drain phenomenon and its consequences.

**CAUSE OF BRAIN DRAIN IN SUB-SAHARAN AFRICA**

**Push and Pull Factors**

Causes for the brain drain have been classified into ‘push’ factors (failing to return to home countries after training abroad) and ‘pull’ factors (driving health workers out of their home countries) (Kirigia et al., 2006). Based on this classification, an array of pull factors have been identified and include lack of research facilities including funding, limited career opportunities, poor intellectual stimulation, threats of violence and lack of good education for children (Pang et al 2002, Kirigia et al., 2006) (See also excerpt 1 in Box 1). Push factors have included poor health systems, insecurity including violence at workplace, low remuneration, inflation, and lack of career development (Pang et al 2002). However, the scale and nature of the push and pull factors vary from one country to another. In most cases they act in combination. The WHO conducted a study on the migration of health professionals in six African countries (four Anglophone countries: Ghana, South Africa, Uganda and Zimbabwe; and two Francophone countries: Cameroon and Senegal,) from October 2001 to July 2002. The study identified an array of reasons for wanting to migrate among health professionals (see Figure 1). The most cited reasons were search for better remuneration, safer working environment, search for improved living conditions, lack of adequate facilities, limited promotion opportunities, heavy workload, upgrade qualifications, declining health services, insecurity (violence and crime) and poor management.
Salary differentials and financial benefits continue to be the most cited reason for the brain drain in Africa. A survey by Martineau in 2002 found monthly salaries for physicians to range from US$50 in Sierra Leone to US$1,242 in South Africa while wages in Canada and Australia were almost four times those in South Africa. As a consequence, half of South African trained doctors migrate to Britain, Canada and Australia, but South Africa fills the gap by recruiting doctors from poor countries such as Kenya, Zimbabwe, and Malawi and doctors from poor countries account for 80% of South Africa’s rural doctors (New Internationalist, 2005). However, the lack of avenues for African health professionals to upgrade their qualifications and the impact of their workload on their ability to perform their duties has been well documented across Africa. In Burundi, merely 2% of children with diarrhoea admitted to community health facilities in 1992 were correctly diagnosed, of these only 13% of were correctly re-hydrated.(Barlow and Dietz, 1998) Data from Chad and Tanzania suggest that the time staff in public facilities spent on tasks they are trained in vary between 55 to 60% of their total work time (Kurowski et al 2003).
Figure 1: Health workers' reasons to migrate in four African countries (Cameroon, South Africa, Uganda and Zimbabwe). Source (Awases et al., 2004)
The Brain Drain and Its Implications for Development

Development programs have struggled to achieve better health outcomes in many sub-Saharan African (SSA) countries. With the subcontinent inhabited by only 11% of the world’s population, it accounts for a staggering 24% of the global burden of disease, but merely less than 1% of the global health expenditure while providing 3% of the world’s health workers (Hagopian, 2006). Due to inadequate government policies and political decision-making, sporadic droughts, armed conflicts, and poor governance, infant mortality rates (US Department of State, 2002), the prevalence of infectious and parasitic diseases and under-nutrition (Martorell, 1996; Martorell et al., 2000; UN ACC/SCN, 2000) in various sub-Saharan countries have consistently remained high. Such trends not only create extra workloads for health professionals, but also the health system is not well equipped to meet minimum standards that would encourage health professionals to remain in the workforces, thus impacting negatively on the effectiveness of development assistance. In the end health professionals find themselves with no choice but to look for more optimistic futures and work opportunities abroad. Due to expectations from family member, decision-making to remain in or leave the country at the individual level is culturally ingrained and health professionals’ choice to prioritise looking after their families financially and socially over that of remaining patriotic appears to be a common thread and appropriate. In this context, patriotism becomes less viable and factors such as lost dignity due to poor salary schemes, work conditions and lack of educational and promotional opportunities due to nepotism and politicians’ selfishness, poor governments’ prioritisation processes, political instability and civil unrest, and western governments’ aggressive recruitment policies, play a strong role in decision making.

The observed poor health outcomes documented in SSA are exacerbated by the brain drain. For example, fighting the brain drain in SSA must take into account the impact of HIV and the AIDS epidemic. In his paper “Fight AIDS as well as the brain drain”, based on a study carried out study in Zambia to examine the impact of HIV and AIDS on brain drain in the Lusaka and Kasama districts, Feeley found an annual death rate of 3.5% for nurses and 2.8% for doctors (Feeley, 2006). The study highlighted that more nurses and doctors are claimed by AIDS-related deaths (68%) than either resignation (23%) or normal retirements (9%). The author projected that the observed deaths account for 37% of nurse vacancy rates over a decade. Considering a median age of 38 years of age, the author speculates that AIDS rather than diseases of advancing age accounts for most deaths among health professionals. Using the total number of 8500 nurses and midwives working in the public sector reported by the Ministry of Health, the author estimated 298 deaths among public sector nurses and midwives nationally, equating to 1.8 times the number of nurses and midwives who applied for registration in the UK in 2003-2004. The author concluded that “many articles on the loss of health professionals in SSA highlight migration to higher paying jobs in wealthier countries as a major cause of shortage of health professionals; in fact emigration is not the greatest drain on the supply of health professionals in some countries severely affected by AIDS”. He continued his argument by suggesting that AIDS-related deaths are “depleting the ranks of health professionals more rapidly than recruitment abroad”.

The gap in the workforce dues to HIV and AIDS cannot be discussed in isolation without taking into account the secondary consequence of the HIV and AIDS epidemic. As a
consequence of the epidemic, many farms have been left uncultivated as economically active adults continue to die, leaving orphans and elderly people at risk of hunger and undernutrition. It is currently estimated that some 60 to 70% of farms in SSA have suffered labour losses as a result of HIV/AIDS (FAO 2003). This has resulted in poor agricultural output that negatively impacts on the economic growth of the affected countries. Consequently, neither the government nor the population are financially equipped to afford health care, thus leading indirectly to poor conditions of health professionals.

Similarly, data by the Joint United Nations Programme on HIV/AIDS suggest SSA remains the sub-continent most hit by HIV and AIDS worldwide, accounting for 72% of all AIDS-related deaths recorded worldwide and the largest proportion of new infections (UNAIDS/WHO, 2006). With projections suggesting that approximately 40 million children will have been orphaned by AIDS by 2010 (Loewenson and Whiteside 2001), the impacts of the sickness and death of swathes of the adult population in many of the poorest countries is wreaking havoc on attempts to achieve development gains worldwide and poses a unique threat to human development in SSA. In some of the worst hit countries, life expectancy has plummeted to below 1950s levels. In Botswana and Zimbabwe, two of the worst affected countries, life expectancy at birth is estimated to be 36 and 38 years, instead of 71 and 70 years without AIDS (Barnett et al 2001). Only 5 out of 51 countries in SSA will meet international goals for decreased mortality. Increased deaths and lower fertility are slowing or reversing population growth in this region. The ability to effectively deal with the epidemic is weakened by the existence of other vulnerabilities that characterise the continent, notably poverty, inequalities, malnutrition and hunger.

Colonial Legacy

It is worth noting that the multiple and overlapping vulnerabilities that characterise SSA today have been in existence since long before the HIV virus and existed prior to and during colonial rules many authors (see Renzaho 2007, United States Mission to the United Nations, 1996; Whitaker, 1978) argue that political legacy left by colonial powers could explain the economic predicament of this sub-continent. The misery experienced by most SSA countries today started with the 1884 Berlin conference, initiated by European countries to establish the colonial division of continent without any African representation at that meeting (Brown 1995). It is well documented that the partition of the continent was nor based on any criteria but rather arbitrary and mainly based on economic bargaining and diplomatic pursuits amongst the colonial powers (Murray, 1981, Marine Corps University Command and Staff College 1997). The consequences were inevitable: created nations were peopled by those from different and dissimilar ethnic groups and traditional rivals, resulting in conflicts that have continued to characterise the continent today (United States Mission to the United Nations, 1996; Whitaker, 1978). Therefore, in the last stage of colonial rules in the 1950s and following independence in the 1960s, colonial powers frequently put in place measures geared toward propping up dictatorial regimes in order to maintain influence in the region and protect their economic interests (Renzaho, 2007). Propped-up dictatorial across SSA prioritised expenditure on the military at the expense of expenditure on health (Figure 2a and 2b). Thus, as countries claimed independence in the 1960’s, a mass exodus of health professionals followed (Walter 1968, Breton 1976, Sassen-Koob 1988, Salt and Findlay
1989) and became exacerbated by the 1980s liberalisation of trade and capital flows and the skill-based and selective immigration policies promulgated by developed countries (Pellegrino 2002)

![Figure 2a: Proportion of government health expenditure paid to health workers: wages, salaries and allowances of employees as percentage of general government health expenditure](image)

![Figure 2b: Proportion of government health expenditure (a) paid to health workers. (a) Includes Wages, salaries and allowances of employees as percentage of general government health expenditure. Adapted from (World Health Organisation, 2006)](image)
Local Brain Drain: The Role of International NGOs

The decline of public health services in SSA has lead to an increase in activities in and by the private sectors and this has been accelerated by the urgency to meet the challenges posed by the HIV and AIDS epidemic. The increase in activities in the private sector has been accompanied by a proliferation of non-governmental organisations (NGOs) for health and welfare service delivery. While such a pattern has resulted in increased services, it has translated into scarcity of staff for the public sector. Financial temptation offered by NGOs has resulted in local brain drain. It is suggested that the increase in NGOs and NGOs’ financial power means that most university professors seized the opportunity and spend a huge chunk of their time working as consultants for international NGOs, rather than teaching their students for a substantially reduced salary (Kassaye, 2006). Available estimates suggest that the local brain drain has impeded the capacity of most SSA countries to effectively deliver health services to their constituencies, resulting in financial loss and therefore negatively impacting on the national economy (Pfeiffer, 2003). As Kassaye (2006) remarks:

It is surprising to see that many agencies [NGOs], while advocating against international brain drain, are the main perpetrators of the local form ... it is usual to see highly educated health professionals employed in jobs unrelated to their expertise by these international NGOs. Others are occupied with routine work below the level of their knowledge and experience. I do not see any logic behind employing an experienced paediatrician as a surveillance officer searching for a single case of polio when he or she could be saving thousands of children’s lives.

The local brain is depriving governments from much needed workforce to effectively run the public health system. There is an urgent need to reform the NGO and private sectors in the most affected countries across SSA, and such reform should consider regulating the NGOs’ recruitment process and remuneration and align them with ethically acceptable standards and in line with national policies.

Change in Demographic Profile is the Next Challenge

As the populations in developed countries age, the demand for health professionals will increase. Hamilton and Yau suggest that by 2010 one million more nurses will be needed to meet the needs of the ageing US population. Considering the current level of nurses graduating each year in the USA, it is projected that there will be a shortfall of 275,000 nurses by 2010 (Hamilton and Yau, 2004b). Other data suggest a shortfall of 78,000 nurses by 2011 for Canada and 40,000 by 2010 for Australia (New Internationalist 2005). Hamilton and Yau concluded that “although some estimates suggest that the US produces more medical doctors than it needs, there is a shortage of general practitioners. Furthermore, 20 percent of Americans live in rural areas, but fewer than nine percent of physicians live in these areas” (Hamilton and Yau, 2004b). Developed countries need to put policies in places to address the increased health need associated with their ageing populations, rather than heavily relying on developing countries. Such policies should consider increasing places for medical students in these countries, complemented by ethical recruitment by developed countries while at the
same time providing institutional support for countries losing its health workforce to developed countries. The foundation should be build on securing promoting organizational capacity and leadership within the government and NGO sector in source countries while securing political commitment to ensure public-private partnerships with civil society to maximise the synergy of available health services and benefits for those working in the system.

**THE PATTERN SO FAR: INABILITY TO RESPOND TO INCREASING HEALTH NEEDS**

Data on the pattern of the brain drain in Africa are summarised in Box 1. It is estimated that SSA is experiencing a shortage of nearly 900,000 doctors, nurses, and midwives, and an overall shortfall of nearly 1.5 million health workers (Physicians for Human Rights, 2006, Hodgson, 2006). The sub-continent needs to increase the output of health professionals by 139% in order to adequately address its health care needs Hodgson, 2006. For example, Tanzania has a shortage of 8,000 health professionals while ironically it has an excess of 5,000 unskilled health workers which it relies on to fill in the gap (Kurowski et al 2003). Yet Africa loses approximately 200,000 professionals annually (Oyowe, 1996). The United Nations Development Programs estimated that 60% of Ghanaian medical doctors trained locally during the 1980s left the country (UNDP 1992) while more than 21,000 Nigerian doctors have been practising in the United States (Oyowe, 1996). In fact, the number of Ghanaian doctors working outside Ghana is far greater than that practicing in the country per se (Nullis-Kapp, 2005). Furthermore, according to Couper (2002) only 50 out of more than 600 doctors trained in Zambia since independence have remained in the country. Ironically, estimations suggest that approximately 12,500 doctors and 16,000 nurses from Africa are registered to work in Britain (Daily Mail, 2005). Regrettably, doctors and nurses trained in SSA and working in OECD represent respectively 23% and 5% of the current health workforce in source countries (World Health Organisation, 2006) (See also Table 2). Such a trend is indeed scary given that current projections suggest that SSA needs more than 620,000 nurses to tackle the HIV/AIDS pandemic and to meet UN development goals (Buchan and Calman, 2005)

The shortage of health professionals has had immeasurable consequences in terms of not only affecting the capacity to provide basic, lifesaving interventions such as the maternal and child health including childhood immunisation, safe pregnancy and delivery services for mothers, but also limiting access to treatment, especially for disease requiring a medical prescription such as HIV/AIDS, malaria or tuberculosis. In 2003 the WHO found that 60% of South African institutions were unable to replace nurses who had emigrated, and a considerable number of pharmacies in Zimbabwe had closed due to the outflow of pharmacists (Hamilton and Yau, 2004a). The pattern observed in Southern Africa is similar to that reported across the sub-continent. For example, most SSA countries have been unable to fill in vacancies for doctors and nurses, with the vacancy rate for public facility physicians in Malawi increasing from 36% in 1998 to 50% in 2001. By 2003, Malawi was unable to fill 72% of its nursing positions (Liese et al., 2003). Rates for unfilled vacancy for public facility physicians averaged 43% in Ghana while Lesotho has been unable to fill in 48% of vacant
places for nurses (Liese et al., 2003). Sadly, while 56% of all migrating doctors emigrate from developing to developed countries, only 11% emigrate in the opposite direction (Zarilli and Kinnon 1998). Faced by a severe shortage of health professionals, African institutions have become chronically dependent on foreign expertise through international NGOs and foreign assistance. It is estimated that Africa pays up to $4 billion dollars per year, roughly 35% of official development assistance directed to the continent (Ngunjiri, 2003), to employ up to 150,000 expatriate professionals to fill the gap left by the drain brain (Tebeje, 2005). Consequently, SSA has been unable to meet the WHO minimum recommended standards for the number of health professionals per capita (Table 1)

![Figure 3: Doctors and nurses trained abroad working in OECD countries. Source (World Health Organisation, 2006)](image)

**IMPACT OF HEALTH CARE MIGRATION ON SOURCE COUNTRIES**

**Service Delivery**

Kurowski and colleagues (2006) have suggested that in order to deliver priority health programs at optimum level nationally by 2015 the workforce needs to triple in Tanzania and more than quadruple in Chad. The World Health report estimated that, of the 57 countries found to have a critical shortage of doctors, nurses and midwives worldwide, 36 (or 63%) are located in sub-Saharan Africa (World Health Organisation, 2006). Available data in four African countries suggest 20% to 50% of their available health workforce is required to scale up treatment with antiretrovirals (Smith 2004). In Ethiopia, for example, the doctor-to-patient and nurse-to-patient ratios are more than four times lower than the Sub-Saharan African average, and far lower that the WHO-mandated cut-off points (Kombe et al 2004, WHO
2004); thus critically inadequate for the provision of basic health care. Kombe and colleagues (2004) noted that given this existing shortage, “the health care system is already strained and may not be well positioned to respond to the rapid scale-up of HIV/AIDS services”. They estimated that less that 10% of patients who are seropositive can afford to pay for antiretroviral. In addition, the cost of Highly Active Antiretroviral Therapy per patient equated to US $705, 96% of which (US$678) was borne by the patient in a country where 60% of the population lives under the poverty line with an annual income of US$90. In this sense, HIV and AIDS services are beyond the reach of many Ethiopians. Similarly, available data suggest that nearly 900,000 South Africans, or at least 85% of those requiring ARV treatment, were not yet receiving it by mid-2005 (Cook 2006).

Financial Cost

The financial losses associated with the brain drain in Africa are enormous. Most SSA countries rely on training health professionals through public medical schools. Consequently, they lose between $500 million and $1 billion per year when health workers emigrate (Hamilton and Yau, 2004a). Kirigia and colleagues (Kirigia et al., 2006) estimated the financial cost of emigration of Kenyan doctors and nurses to OECD countries and sought to describe other losses from brain drain. The authors estimated that, from primary school to university, the total cost of educating a single medical doctor and one nurse was respectively US$65,997 and US$43,180. By compounding the cost of educating a medical doctor and a nurse over the period between the average age of emigration (30 years) and the age of retirement (62 years) in recipient countries, they found that, for every doctor and nurse who emigrates, Kenya loses respectively about US$517,931 and US$338,868worth of returns from investment. In light of these findings the authors remarked that “if the current trend of poaching of scarce human resources for health (and other professionals) from Kenya is not curtailed, the chances of achieving the Millennium Development Goals would remain bleak...such continued plunder of investments embodied in human resources contributes to further underdevelopment of Kenya and to keeping a majority of her people in the vicious circle of ill-health and poverty”. The mass exodus of Kenyan health professional to developed countries means a chronic depletion of the Kenyan health system. According to the 2006 World Health Report, “losing its workforce can bring a fragile health system close to collapse” (World Health Organisation, 2006) and has immeasurable social implications characterised by the loss of health services (unable to plan and implement adequately preventative and health promotion activities), the loss of role models, supervisors, mentors for health sciences trainees, the loss in functionality of referral systems, and the loss of entrepreneurs and thus employment opportunities and tax revenue to government. While developing countries that provide the bulk of health professionals continue to suffer fiscally, developed countries continue to benefit from the brain drain (see Box 2)
Table 1: Physicians per 100,000 people and workforce shortfall

<table>
<thead>
<tr>
<th>WHO region</th>
<th>Total workforce</th>
<th>Critical shortage doctors and nurses</th>
<th>In countries with shortage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Density (/100,000 population)</td>
<td>Total No. of countries</td>
</tr>
<tr>
<td>Africa</td>
<td>1 640 000</td>
<td>2.3</td>
<td>46</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>2 100 000</td>
<td>4.0</td>
<td>21</td>
</tr>
<tr>
<td>South East Asia</td>
<td>7 040 000</td>
<td>4.3</td>
<td>11</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>10 070 000</td>
<td>5.8</td>
<td>27</td>
</tr>
<tr>
<td>Europe</td>
<td>16 630 000</td>
<td>18.9</td>
<td>52</td>
</tr>
<tr>
<td>Americas</td>
<td>21 740 000</td>
<td>24.8</td>
<td>35</td>
</tr>
<tr>
<td>World</td>
<td>59 220 000</td>
<td>9.3</td>
<td>192</td>
</tr>
</tbody>
</table>

Source (World Health Organisation, 2006)
Table 2: Doctors and Nurses trained in sub-Saharan Africa working in OECD countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Total doctors in home countries</th>
<th>Total doctors working in 8 OECD countries*</th>
<th>% of home workforce</th>
<th>Total nurses in home countries</th>
<th>Total nurses working in 7 OECD countries**</th>
<th>% of home workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>881</td>
<td>168</td>
<td>19.1%</td>
<td>13,627</td>
<td>105</td>
<td>0.8%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>3,124</td>
<td>109</td>
<td>3.5%</td>
<td>26,032</td>
<td>84</td>
<td>0.3%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1,936</td>
<td>335</td>
<td>17.3%</td>
<td>20,763</td>
<td>195</td>
<td>0.9%</td>
</tr>
<tr>
<td>Ghana</td>
<td>3,240</td>
<td>926</td>
<td>28.6%</td>
<td>17,322</td>
<td>2,267</td>
<td>13.1%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>514</td>
<td>22</td>
<td>4.3%</td>
<td>6,183</td>
<td>34</td>
<td>0.5%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>34,923</td>
<td>4,261</td>
<td>12.2%</td>
<td>210,306</td>
<td>5,375</td>
<td>2.6%</td>
</tr>
<tr>
<td>South Africa</td>
<td>32,973</td>
<td>12,136</td>
<td>36.8%</td>
<td>184,459</td>
<td>13,496</td>
<td>7.3%</td>
</tr>
<tr>
<td>Uganda</td>
<td>1,918</td>
<td>316</td>
<td>16.5%</td>
<td>17,472</td>
<td>21</td>
<td>0.1%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>822</td>
<td>46</td>
<td>5.6%</td>
<td>13,292</td>
<td>37</td>
<td>0.3%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>2,086</td>
<td>237</td>
<td>11.4%</td>
<td>9,357</td>
<td>3,183</td>
<td>34.0%</td>
</tr>
<tr>
<td>Botswana</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7,747</td>
<td>572</td>
<td>7.4%</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,203</td>
<td>30</td>
<td>0.9%</td>
</tr>
<tr>
<td>Kenya</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>37,113</td>
<td>1,213</td>
<td>3.3%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,123</td>
<td>200</td>
<td>17.8%</td>
</tr>
<tr>
<td>Malawi</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11,022</td>
<td>453</td>
<td>4.1%</td>
</tr>
<tr>
<td>Mauritius</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,438</td>
<td>781</td>
<td>17.6%</td>
</tr>
<tr>
<td>Namibia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6,145</td>
<td>54</td>
<td>0.9%</td>
</tr>
<tr>
<td>Swaziland</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,590</td>
<td>299</td>
<td>6.5%</td>
</tr>
<tr>
<td>Zambia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22,010</td>
<td>1,198</td>
<td>5.4%</td>
</tr>
<tr>
<td>Total</td>
<td>82,417</td>
<td>18,566</td>
<td>22.5%</td>
<td>616,204</td>
<td>29,597</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Note: - Data not available
* Australia, Canada, Finland, France, Germany, Portugal, UK and USA
** Canada, Denmark, Finland, Ireland, Portugal, UK and USA
Source. Adapted from (World Health Organisation, 2006)
PROGRESS IN ADDRESSING THE BRAIN DRAIN AND A WAY FORWARD

In response to the brain drain crisis, a number of strategies have been adopted. A resolution was adopted by 192 countries at the 2004 World Health Assembly15.(World Health Assembly, 2004) The resolution urged Member States to (1) to develop strategies to mitigate the adverse effects of migration of health personnel and minimize its negative impact.
on health systems; (2) to frame and implement policies and strategies that could enhance effective retention of health personnel including, but not limited to, strengthening of human resources for health planning and management, and review of salaries and implementation of incentive schemes; (3) to use government-to-government agreements to set up health-personnel exchange programmes as a mechanism for managing their migration; and (4) to establish mechanisms to mitigate the adverse impact on developing countries of the loss of health personnel through migration, including means for the receiving countries to support the strengthening of health systems, in particular human resources development, in the countries of origin.

Prior to the World Health Assembly 15, Commonwealth countries had adopted and signed a Code of Conduct to guide recruitment of health professionals from developing countries. The Commonwealth Code focuses on obligation-free sets of agreement related to ethical principles to address the issue of brain drain. Other similar initiatives have since been put in place. The NGO Physicians for Human Rights (PHR) has set forth some guidelines for rich countries in search of additional health care labour. A report by the Joint Learning Initiative at Harvard University carefully documents the spectrum of challenges, including migration, that developing countries face and put forward a number of various strategies. While these initiatives represent a good start, they contain many gaps. The following recommendations are suggested:

- **The Diaspora as a key player:** Encourage return of Migrant professionals. Health professionals working in developed countries have a big role to play in addressing the brain drain in Africa. There is an urgent need to focus on incentives-based strategies that would allow poor countries to retain its workforce, an approach that has not received enough attention in the literature. One simple way is for developed countries to put in place strategies/ incentive-based systems to encourage migrants to go back to help re-build their shattered countries. A recent study conducted by the Association for Higher Education and Development -Semantics Aside: the Role of the African Diaspora in Africa's Capacity Building Efforts- found emerging Diaspora efforts to assume a more active role in Africa's development through virtual participation (Tebeje, 2005). It is encouraging to note that the International Organisation for Migration (IOM) has put in place programs encouraging health professionals to assist their country of origin. Under this plan, the IOM pays the returnees' airfare including any excess baggage and provides a relocation allowance plus a local salary supplement of up to $800 dollars per month for six to 12 months (Ngunjiri, 2003). These types of programs need to be multiplied.

- **Proper remittance management through adequate taxation and money transfer channels.** Available data suggest that migrant workers send home around $100 billion a year, constituting the largest source of foreign exchange for many countries struggling economically. Recorded transfers to Africa increased from 8.2 billion in 1999 to $12 billion in 2002, 33.3% ($4 billion) of which went to SSA (International Organization for Migration 2003). Data by the International Organization for Migration suggest that official remittances have represented considerable financial inflows in many African countries amounting to 4.5% of gross domestic product in Benin, to 5.8% in Burkina Faso and 13.5% in Cape Verde. In addition, official
remittances have considerably accounted for more of financial inflows than foreign
direct investment across Africa except for Nigeria and Cameroon (see International
Organization for Migration 2003). This area needs to be regulated such that
remittances are taxed and the benefit put to maximum use to improve the fragile
African health system. Taxing methods need to be thought along the lines of
reciprocal tax agreements so that half the normal tax on money is being remitted in
the country where they earn it, and the other half in their home country. Given the
level of corruption in many of receiving countries, it may also be necessary to
suggest that any such tax revenue goes into special funds that are rigorously audited
so that the money is indeed used for the health system. However, this would require
proper governance structure and functioning banking system, and transparent and
healthy policies free of corruption and nepotism. These are the challenges that
continue to characterise SSA.

- **Health and conflict resolution/conflict prevention.** According to Hans Guelph “for
developing countries to be disunited plays into the hands of the developed nations”
(Guelph 2005). Insecurity, ethnic conflicts and violence continue to disunite many
nations in SSA and to characterise work environments such as hospitals or health
departments, thus acting as precursors for the brain drain. There is a need for wider
reforms to recognise and integrate peace building and conflict resolution into the
health system. In order to strengthen any existing health infrastructure, disaster
preparedness and conflict resolution should be the cornerstone of such health
framework. In fragile states not only do conflicts and disasters put more strain on
existing scarce medical workforce but also lead to the destruction of the health
infrastructure itself. For example, there is a direct relationship between the rapid
increase in the prevalence of HIV/AIDS and the proliferation of armed and ethnic
conflicts across sub-Saharan Africa (Renzaho, 2006). It is currently estimated that
the prevalence of infection for sexually transmitted diseases, including HIV/AIDS in
military forces worldwide is at least double that of civilians (National Intelligence
Council, 2000). Therefore any framework geared toward curbing the effect of the
brain drain in SSA would not be compete without developed countries’ commitment
to controlling the traffic of small arms, conflict prevention and investing in the
promotion of social capital. The environment would need to be safe enough such that
doctors and nurses still in countries feel safe at work and in their respective
communities.

- **Cultural competence framework.** Addressing the brain drain requires that a cultural
competence be put in place (see chapter 15 for more details on the concept). Cultural
competence will improve developed countries’ reflexive understanding of the nature
of cultural and historic factors which trigger and facilitate out-migration of African
health professionals. Only when attention to cultural competence is incorporated into
any brain drain prevention strategies can effective health systems and infrastructure
be realistically achieved in countries where cultural imperatives precede effective
decision-making. It would be counterproductive for western countries to develop
policies and guidelines and simply expect African countries to align them with
national policies and institutions. In some countries, such an approach would be seen
by local communities as being the tool for government cronies to exploit the system
at the expense of those who heavily rely on it. A health approach would be to
develop incentive-based policies that should be directed toward encouraging the development and implementation of good social policies that takes into local realities (supporting national policies and institutions that are delivering direct benefit to the grass root level). The model by Eisenbruch (2001) would be of help in strengthening cultural competence into brain drain prevention strategies. Four dimensions of cultural competence that are relevant to the brain drain debate include:

- **Systemic** — effective policies and procedures, mechanisms for monitoring and sufficient resources are fundamental to fostering culturally competent behaviours and practice at other levels. Issues related to corruption, poor governance, poor working conditions, poor wages, virtual participation of the Diaspora would be effectively addressed if policies put in place support the active involvement of stakeholders in matters rather than the west trying to formulate policies on behalf of the affected countries and their constituencies.

- **Organisational** — in order to overcome nepotism and tribalism, which limit promotion opportunities for many health professionals in Africa, a culture is created where cultural competence is valued as integral to core business for all government and non-government departments and consequently supported and evaluated. The expectation would be that the management is committed to cultural and ethnic diversity at all staffing levels. This would be the way to overcoming ethnic conflicts and isolations that continue to characterise the workforce in many SSA countries.

- **Professional** — the goal at this level would be to ensure that the cultural competence framework is institutionalised and identified as an important component in education and professional development. Such a move should be guided by cultural competence standards to guide the working lives of health professionals.

- **Individual** — the goal would be to promote and sustain knowledge, attitudes and behaviours that are culturally competent. The system should provide an environment that harnesses these traits at individual level such that individual health professionals feel supported to work within diverse and complex environments.

Other strategies may include:

- Improving retention of current staff through bonding, incentives, and compulsory services post qualifications (Dovlo and Martineau, 2004). However, one needs to be aware that the goal should be to increase the net number of health professionals which means both slowing the brain drain and attracting more trainees. Some measures to hold onto existing staff may discourage new trainees from joining and could have the opposite effect from that intended.

- Identifying countries from which recruitment may be less harmful and put in place more acceptable forms of recruitment within those countries (Scott, 2004). Such a strategy should be geared toward minimising local brain drain (thus the need to reform the NGO and private sectors).
• Compensating countries most affected by the brain drain and from which individual skilled health professionals are recruited. Compensation should be both financially and through program exchange and work placement. The latter may require changes in the visa policies of developed countries to promote skills development through short-term visas as strategy to overcome the lack of career development.
• Discourage narrow recruitment of health professionals for disease-focused specific programs while minimizing reliance on foreign health professionals at the same time encouraging capacity-building to improve salaries and human resource management including procurement of basic medical supplies and knowledge transfer.

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