

# ONE

## **ABANDONING THE DESTITUTE TO HEAL THE WEALTHY: THE MEDICAL "BRAIN DRAIN" PHENOMENON IN THE CONTEXT OF GLOBALIZATION**

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A quarter of all doctors practicing in the United States are foreign medical school graduates, a large majority of which come from developing countries that are being decimated by AIDS, malaria, tuberculosis and other infectious diseases. Why are countries in critical need of medical professionals unable to retain their locally trained staff? What are the consequences of the medical “brain drain” phenomenon and is it caused by natural attrition or proactive recruitment by developed nations? I suggest globalization—integration of economic activities via free markets—is creating huge incentives for medical migration and, although recipient nations as well as relocating doctors economically benefit from this trend, impoverished countries already in dire need of culturally-aware, competent medical professionals are forced to absorb the resulting loss in health capacities to their severe detriment. I argue that impoverished countries such as Ghana and Kenya cannot feasibly compete with far richer nations in the race to win skilled-minds. I conclude that medical migration is contributing to an increasingly slanted world where the most impoverished people will continue to suffer unless the international community implements protectionist measures that compensate poor countries for their loss of precious human capital. For the short-term, I suggest several policies that may provide incentives to doctors to remain where they are most needed—policies such as making medical school scholarships contingent on returning to one's country of origin, opening more medical institutions in developing countries, increasing medical school enrollment numbers in the US to saturate the domestic market, and using humanitarian aid to increase the salaries of foreign doctors that forgo the economic temptation of medical migration. For the long term, I advocate broader policies concerned with ending the endemic poverty plaguing an unevenly developed world.

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### **INTRODUCTION**

A quarter of all doctors practicing in the United States are foreign medical school graduates, of which a large majority—60 percent—come from developing countries that are being decimated by AIDS, malaria, tuberculosis and other infectious diseases. South-to-North brain drain within the medical community is far from negligible; a stunning number of health professionals have left their country of origin to practice in the developed world. The World Health Organization estimates that 20,000 health professionals emigrate from Africa annually (Stillwell et al 2004). In general, migration continues to rise (Global Commission on International Migration 2005, 1). The UN estimates that there are now 175 million people living outside the land of their birth—50 million more than 10 years ago (Reynolds 2005).

In a study published in the *New England Journal of Medicine*, Dr. Fitzhugh Mullan notes that medical brain drain is a global trend: “There has been substantial immigration of physicians to developed countries, much of it coming from lower-income countries” (Mullan 2005). Several under-developed countries—such as Ghana, Nigeria and Kenya—have fared particularly poorly in the struggle to retain their own health community in the face of promising professional prospects in developed nations. At a conference in Accra on “Ghana Health Worker Migration” and the need to strengthen the local health system, Dr. Kofi Ahmed, Chief Medical Officer of the Ministry of Health, revealed that, between 1993 and 2002, Ghana lost 604 out of 871 of its locally trained medical doctors (*Accra Daily Mail* 2006). An estimated 47 percent of Ghana's highly educated citizens now work away from home and 62 percent of Ghanaian health workers intend to migrate (Kapur, Devesh, and McHale 2005). One of the world’s poorest countries, Ghana only has 6.2 doctors per 100,000 people (equivalent to having less than 10 doctors for a city the size of Syracuse, N.Y.). The ratio of doctors to patients is likely to decrease considering Ghana loses three-quarters of its doctors within ten years of qualifying because of South-to-North migration (*The Economist* 2005). Dr. Eric Friedman of *Physicians for Human Rights*, an organization that aims to promote health by protecting human rights, points out that medical brain drain is a huge problem throughout the underdeveloped world and notes that Ghana's 30 percent of health professionals practicing abroad is the highest in sub-Saharan Africa (Physicians for Human Rights 2004). The organization says Africa, as a whole, cannot stop poverty without more health workers (Physicians for Human Rights 2005).

In a climate of intense competition created by developed nations vying for skilled health professionals trained in the underdeveloped world, Ghana is by no means anomalous in its inability to retain locally trained medical staff. In Nigeria, one of the several major health-staff-exporting countries according to WHO, “432 nurses legally emigrated to work in Britain between April 2001-March 2002, compared with 347 between April 2000-March 2001, out of a total of about 2000 (legally) emigrating African nurses, a trend that is perceived by Nigeria’s government as a threat to sustainable health care delivery in Africa’s most populous country” (Stillwell et al 2004). Similarly, in Kenya, an impoverished country desperately in need of health professionals, there is only one doctor for every 10,000 people; however, locally trained Kenyan physicians are emigrating in droves to the developed world (*National Public Radio* 2005). The British-based charity Oxfam says brain drain has had an especially harmful effect on Zambia, where there is one doctor per 14,000 people (Nguyen 2006). According to an article by Amy Hagopian on the African brain drain, nearly every impoverished African nation has fared poorly in retaining locally trained medical staff. The migration of over 5,000 doctors from sub-Saharan

Africa to the USA has had severe repercussions for the region (Hagopian 2004). While 5,000 doctors is a small gain for the U.S., the number represents a huge sacrifice for sub-Saharan Africa, where the infant mortality rate is 102 of 1,000 and the average life expectancy is 46 years (Cobb 2005, 2). As Physicians for Human Rights notes, “Brain drain is happening, and for nurses, the backbone of health care in Africa, it is accelerating” (Physicians for Human Rights 2004). The numbers suggest nothing less than an exodus of medical professionals from African countries to the developed world.

## **THE PUSH AND PULL FACTORS DRIVING MEDICAL BRAIN DRAIN**

### **Push Factors in Countries Losing Medical Capacity**

Medical professionals in the global South are dissuaded from remaining stationary for many reasons. A collaborative study published by the *Lancet Medical Journal* observes: “Nearly all countries [experiencing brain drain] are challenged by worker shortage, skill mix imbalance, maldistribution, negative work environment, and weak knowledge base” (Chen et al 2004). Other key reasons for emigrating are personal ones. These include security, the threat of violence, and the wish to provide a good education for their children (Pang, Lansang, and Haines 2002, 499-500). In this paper, we consider the following factors pushing doctors towards the global North: poor economic benefits, limited career opportunities, and substandard working conditions.

According to Harvard University’s Dr. Amitabh Chandra, “Many articles in the field of economics demonstrate that income discrepancies between donor and recipient nations are the principal determinant of decisions regarding migration” (Chandra 2006). The disparities are so stark that some doctors in developing countries are even willing to retrain as nurses in order to secure positions in developed countries. This phenomenon has been called “brain waste.” Two physicians at the University Hospitals of Cleveland note:

A disheartening development in the Philippines is the increasing number of physicians who are retraining to become nurses. Most doctors there receive an annual salary equivalent to less than a month's pay for a nurse in a U.S. hospital. Immigration to the United States for nurses is much simpler than it is for physicians. Since the year 2000, more than 3500 Filipino physicians have taken accelerated nursing courses and have left for nursing jobs abroad. More than 4000 physicians are now in nursing school. These students include not just new physicians but internists, surgeons, anesthesiologists, family practitioners, and subspecialists (Galvez, Sanchez, and Balanon 2004).

Ambitious physicians’ desires to seek better opportunities are understandable and it is important to recognize that the brain drain phenomenon is largely the result of a tilted playing field where some locations provide far greater economic stability than others. Demoralized from long hours in cramped spaces for little pay and patients, many doctors choose to migrate to the developed world.

Medical brain drain is not simply fueled by the economic self-interest of health professionals but also the desire for better academic opportunities that would make these doctors better practitioners. Dr. Uzor C. Ogbu brings up a compelling point in a letter to the *New*

*England Journal of Medicine*: “Given the limited number of residency positions in the source countries, if the migrating physicians . . . had stayed home, they might not have attained the qualifications they now hold” (Domingo and Salvana 2006). Therefore simply mandating that potential doctors remain stationary will not alleviate medical brain drain unless such legislation is coupled with a plan for strengthening residency programs. Dr. Gökmen Gemici raises a similar concern, “One of the major problems of being a physician or scientist in a developing country is the shortage of academic opportunities” (Domingo and Salvana 2006). In assessing the metrics of medical brain drain, Dr. Fitzhugh Mullan notes, “Medical-training positions in these developed nations, as well as opportunities for medical employment, have proved a strong draw for physicians from many nations” (Mullan 2005). In light of these doctors’ general consensus, we may add not just individual advancement but also the lack of advanced medical training venues in developing countries to our growing list of “donor country problems.”

Aside from desires to enhance one’s professional situation, the harrowing conditions characterizing clinics in the developing nations also prompt medical relocation. In a study concerned with understanding the forces encouraging medical migration, John Iliffe of Cambridge University examines medical affairs in East Africa from 1870 until the present through the various perspectives of African health care workers. Iliffe suggests that the declining (“weak”) states of Uganda, Tanzania and Kenya hurt health professionals by creating a situation of irregular salaries, dilapidated facilities and scarce medicine (Iliffe and Anderson 1998). Karl Peltzer identifies occupational stress and burnout symptoms among randomly selected South African medical practitioners from a national survey before concluding: “High severity job stress ratings included (1) fellow workers not doing their job, (2) inadequate salary and (3) covering work for another employee and high frequency of job stress, (4) working overtime, making critical on-the-spot decisions and dealing with crisis situations” (Peltzer 2003, 275). Peltzer’s study revealed that additional factors contributing to medical migration include racial dynamics and gender biases that stymie medical professionals’ ability and desire to succeed in their chosen professions (Peltzer 2003, 275).

We have now established that “donor country problems” include unsatisfying economic compensation (irregular salaries); lack of educational opportunities (post-graduate medical training institutions); and challenging work conditions (dilapidated facilities). When asked why medical brain drain occurs, respondents consistently alluded to these problems (see: addendum for surveys). Yet donor country problems are not the only forces driving medical brain drain. Let us now turn our attention towards analyzing the pull factors that play an equally strong role in perpetuating medical migration.

### **Pull Factors: Economic Growth, Medical School Restrictions and Elitism**

Considering immigration issues are always heatedly debated, why are developing countries’ borders relatively permeable to physicians? The media is rife with images and stories of desperate low-skilled determined to cross into developed countries at all costs, and yet certain high-skilled professionals have almost no trouble making the same transition. One explanation for these selectively permeable borders is recipient countries’ need for doctors.

Surprisingly, although the world’s richest country, the United States has a medical workforce that is far from self-sufficient in healthcare provision. A comprehensive study of brain

drain by Dr. Fitz Mullan notes that an educational disequilibrium in the US (rather than African countries) creates an atmosphere conducive to brain drain. Firstly, the \$200,000 price-tag for a medical education dissuades many otherwise qualified students from considering medical school. Secondly, the restrictive attitude of the American Medical Association towards certifying medical school graduates raises barriers for American-trained doctors that create a human resource vacuum (Wall 2005).

Even as the demand for doctors has grown significantly in the United States, medical school enrollment has barely budged. The annual number of medical school graduates has remained almost constant since 1980, despite a population increase of 50 million. Over that same period, only one new medical school has opened its doors. As baby boomers reach retirement, the shortage of doctors will only grow worse, creating even greater demand for doctors from Africa, Asia and the Caribbean. American medical schools have long limited enrollment, thanks in part to a deeply ingrained elitism (Wall 2005).

Physicians for Human Rights similarly notes that a shortage of health professionals in developed countries and the subsequent recruitment of such professionals from Africa is fueling medical brain drain. "Higher income-countries are increasingly looking abroad to meet their health personnel needs, due to significant shortages of health professionals in these countries" (Physicians for Human Rights 2004). The organization says appropriating from underdeveloped countries occurs because "this is faster and less expensive than nurturing their workforces" (Physicians for Human Rights 2004). Physicians for Human Rights is careful to note that this phenomenon is not natural but provoked: "While data is lacking on the exact extent to which recruitment of African health professionals contributes to brain drain, the increasing levels of recruitment, particularly for nurses, is widely acknowledged" (Physicians for Human Rights 2004).

Policy measures adopted by recipient countries indicate that the demand for international medical graduates in the United States, the United Kingdom, Canada, and Australia will only grow in the near future:

Pressures are mounting in [the United States, the United Kingdom, Canada, and Australia] to increase the supply of physicians in practice. The government of the United Kingdom is committed to achieving a rapid increase of 9500 physicians by a combination of new medical schools and increased recruitment abroad. Canada is adding residency positions to accommodate more international medical graduates and is streamlining immigration and training requirements to facilitate the direct entry of international medical graduates into practice. Australia plans to increase the numbers of Overseas Trained Doctors and Temporary Resident Doctors in practice, in addition to increasing the number of medical school positions. In the United States, a number of professional organizations and academic leaders as well as the COGME have called for measures to augment the numbers of physicians in practice (Mullan 2005).

Western countries, led by the United States, have perpetuated this problem by promoting policies that encourage medical migration. As Ireland's former President Mary Robinson notes,

"Countries that are active supporters of the health and education objectives included in the UN's Millennium Development Goals are nevertheless recruiting personnel from hospitals and schools in low-income countries that are unable to offer basic health and education services to their own children" (Global Commission on International Migration 2005).

Having established that the medical brain drain phenomenon is generated by both "donor country problems" and "recipient country needs," we can now turn our attention towards examining the problems created by the exodus of health professionals from the underdeveloped to the developed world.

### **EFFECTS OF MEDICAL BRAIN DRAIN: AN UNCURBED PANDEMIC, A GEOGRAPHICALLY-IRRELEVANT CURRICULUM, AND SECOND-CLASS CARE**

Aside from the obvious problem of a devastatingly severe deficiency of health care professionals in the most disease-ravaged parts of the world, medical brain drain complicates efforts to curb the HIV/AIDS pandemic, pressures local institutions into revamping their curriculums to accommodate the anticipated migratory aspirations of their students, discouraging federal investment in local medical institutions, and contributes to the rise of second-class care and medical ethics.

### **Brain Drain Complicates Efforts to Address the AIDS Pandemic and Other Diseases**

Across the African continent the HIV/AIDS statistics are utterly terrifying. It is impossible to overstate the pandemic's magnitude, considering more than 26 million people live with the virus in sub-Saharan Africa and 2.3 million die each year from AIDS-related illnesses (Mendel 2005, 68). But, as Samantha Henig notes, "the very initiatives proposed to deal with the H.I.V.-AIDS epidemic in Africa cannot be carried out with the current number of doctors there" (Henig 2005). The statistics on HIV can be numbing or, worse, desensitizing. For our purposes it may prove helpful to conceptualize the situation as follows: Destitute people who are already susceptible to manifold diseases are losing locally-trained, competent medical professionals at an exceedingly high rate, and at a time when such professionals are most needed.

Efforts to successfully halt the spread of HIV have been greatly undermined by "massive migration of health professionals from poor countries to rich countries, by macroeconomic policies that impose hiring freezes and salary caps, and by HIV/AIDS, which has decimated the health workforce in some high-prevalence countries" (Millennium Project Task Force on Child Health and Maternal Health 2005, 13). As Dr. Mullan states, "there is growing global concern about the large variation among the world's nations in the availability of physicians and the negative impact of the scarcity of physicians on health equity, health disparities, and the fight against human immunodeficiency virus [HIV] infection and the acquired immunodeficiency syndrome [AIDS] (Mullan 2005). As Physicians for Human Rights notes:

While the health sector human resource crisis would exist even without HIV/AIDS, the AIDS crisis is central to the shortage of health profession. Many health workers die of AIDS and HIV/AIDS is increasing the workload at health facilities. Meanwhile, the

efforts in countries that have begun to significantly scale-up AIDS treatment, such as Botswana and South Africa, are being hampered by the dearth of health professionals (Physicians for Human Rights 2004).

The organization concludes that “as more countries seek to scale up AIDS treatment or other health services, they will find, as they are already finding, that human resources are the major constraint” (Physicians for Human Rights 2004).

While global HIV is debatably the greatest health crisis of our time, even before the HIV pandemic hit, people in resource-poor areas were forced to rely on weak and understaffed health systems. Malawi, situated in a part of the world in desperate need of highly educated workers, has a distressing shortage of medical personnel, yet many locally-trained doctors are immigrating to Britain. “In Malawi, only 5 percent of physicians' posts and 65 percent of nursing vacancies are filled. In the country of 10 million, one doctor serves 50,000 people compared with the British ratio of one doctor for every 600 people” (Nguyen 2006). Aside from compounding the shortage of health practitioners, the phenomenon exacerbates the conditions contributing to the exodus of medical professionals by decreasing the doctor-patient ratio, which puts additional stress on those doctors who remain stationary. If rich countries maintain their near monopoly on the world's most educated people to compensate for their own failure to train enough physicians, poor people in the global South will continue to pay a steep price.

### **Brain Drain Leads to a Geographically-Irrelevant Curriculum**

Medical brain drain has contributed not only to a second-class medical work force but also to a medical school curriculum that is not particularly useful to doctors wishing to practice in local communities experiencing ailments that are less common in the West such as malaria, tuberculosis, or a host of other diseases that citizens of rich countries haven't even heard of—like kala azar, sleeping sickness and Chagas diseases. As Dr. Mullan notes, “Many medical schools in source nations are influenced by the ‘Western aspirations’ of their students, so that their training programs are not well aligned with local patterns of disease and levels of technology” (Mullan 2005). While doctors who plan to work in the developing world may benefit from acute familiarity with high-tech medical equipment, those intending to remain in their native communities may also greatly benefit from an ancillary geographically-pertinent education.

### **Separate and Unequal: The Rise of Second-Class Quality of Care**

The influx of foreign medical students to the developed world has created a vacuum in the communities they leave, resulting in the development of a second-class health care system. Dr. Ngatia, the director of the African Medical Research Foundation (AMRF), in an interview with NPR, speaks of a rising class of medical practitioners in Kenya with limited but adequate training. They can perform minor surgeries and treat most diseases, including AIDS. Economist Jeffrey Sachs echoes Dr. Ngatia by noting several countries have demonstrated that community health workers who have undergone one-year training courses contribute to substantial improvements in the communities where they work. For example, “Ethiopia is currently training several thousand community health workers who will be able to carry out malaria control, offer simple treatment, and help improve households' hygiene” Sachs says “if extended to other areas, this 'barefoot doctor' approach could rapidly improve rural life at moderate cost” (Sachs 2004).

As a temporary solution to the serious lack of medical professional, community health workers are indispensable in alleviating the suffering of those who have no other options. Yet the rise of a permanent second-class medical force is deeply problematic. Dr. Festus Ilako, director of programs at AMRF, cautions against assuming that the less-educated want mediocre healthcare (National Public Radio 2005). The rise of a second-class cadre of health professionals for Africans is just one of the many undesirable effects of the brain drain phenomenon.

### **CURRENT EFFORTS TO AMELIORATE BRAIN DRAIN: REMITTANCES, RELIEF MISSIONS AND HUMANITARIAN AID**

We have now established that medical brain drain is occurring at an exceedingly high rate for reasons broadly grouped as “donor country problems” and “recipient country needs.” We have also explored the problems the phenomenon engenders: a dearth of doctors where they are most needed, difficulty in curbing a burgeoning pandemic, and, compromised health care quality.<sup>1</sup> Let us now examine the current efforts to ameliorate brain drain in order to determine if they are offsetting the problems created by the phenomenon.

#### **Remittances: Helping, but Helping Who?**

Some scholars have cited the remittances that immigrant-physicians send home and the clinical and educational links that they establish as evidence of a net “brain gain”.<sup>2</sup> In Ghana, for example, remittances form the fourth biggest source of foreign exchange transfers after cocoa, gold, and tourism (Akurang-Parry 2002, 58). That said, there are three major flaws in the argument that remittances compensate for brain drain:

First, remittances come mostly from low-skilled workers. Physicians and managers are far more likely to come from the institution-building middle-class whose families back home need money much less. Second, money alone is not enough. Just as foreign-aid has not guaranteed development, countries that receive the most remittances relative to the size of their economy—from Haiti to Somalia—have not developed as a result. Finally, remittances mainly augment consumption . . . the lack of broader investment is no surprise given weak institutions, a consequence (and cause) of human capital flight (Kapur, Devesh, and McHale 2005).

There is little evidence suggesting remittances “trickle-down” to those who need the money most or spur much-needed development. Ibrahim Elnur notes that quantitative and other impact assessment techniques do not capture the effect of skills-pool depletion on output growth, on capacity to replace lost skill, and, more importantly, on the political, institutional, and social processes that are critical for development (Elnur 2002, 38). Also, remittances tend to decline over time because migrants send less money home the longer they stay (Elnur 2002, 38). Even if remittances could completely compensate for the situation created by brain drain, comparing the dollars lost in emigration to the dollars accrued through remittances suggests a net loss:

With 600 of its medical graduates registered in New Zealand, the financial cost to South Africa was estimated at \$37m. The United Nations Commission for Trade and Development has estimated that each migrating African professional represents a loss of

\$184 000 to Africa. Paradoxically, Africa spends \$4bn a year on the salaries of 100,000 foreign experts. "Brain waste" also occurs when health workers end up working outside the health sector or as unskilled labour in the country they move to (Pang, Lansang, and Haines 2002).

Thus, brain drain and brain waste seem to contribute to “reverse aid,” where the poorest are not only denied critical medical treatment but are also becoming poorer in the process.

### **Humanitarian Aid: Compensating instead of “Aiding”?**

While the positive impact of humanitarian aid and medical relief missions is undoubtedly helping to alleviate the problems created by medical brain drain, these well-intentioned efforts far from negate the phenomenon’s pernicious effects. Katie Nguyen reports that brain drain “deals a double blow to weak economies which not only lose their best human resources and the money spent training them, but then have to pay an estimated \$5.6 billion a year to employ expatriates” (Nguyen 2006). While it is difficult to authoritatively state that USAID’s expenditure on global health initiatives is negating the financial losses of brain-migration, it is important to note that aid is meant to substantially bolster impoverished countries rather than simply compensate for human capital losses. As Physicians for Human Rights notes, “building equitable health systems requires a massive infusion of resources, far more than donors or low-income countries have been thus far willing or able to spend” (Physicians for Human Rights 2004). The organization concluded that “much more money is needed to improve health systems” (Physicians for Human Rights 2004).

### **Brain Drain Stymies Development Efforts**

If an impoverished country’s doctors remained situated, there is good reason to believe they may demand and spearhead change in their native countries’ healthcare system. Similarly, while international efforts to curb diseases in the developing world are indispensable in the short-term, they do not negate the damage caused by medical brain drain because, as Dr. Mullan notes, “The brain drain is actually a safety valve for systems in need of reform. It is a launch pad for some nations’ brightest young minds who, if they stayed at home, would demand change and probably lead that change” (Mullan, Politzer, and Davis 1995). Dr. Mullan’s comment seems commonly accepted: “Development experts say the talent drain not only undermines Africa’s economic growth, but also damages prospects for political transformation,” according to *Reuters* correspondent, Katie Nguyen (Nguyen 2006). Since intellectuals are typically at the forefront of home-grown reforms, brain drain is seriously crippling efforts to improve socioeconomic conditions in the third world. The exodus of medical students and workers prevents much needed investment and development in the world’s poorest countries. As Ibrahim Elnur notes, “the ‘skills exodus’ may represent a major disruption in the political and social development of Africa, leading to further marginalization and adversely affecting Africa’s capacity to revive development or envision an alternative development path” (Elnur 2002, 37).

## **Humanitarian Relief Efforts: Band-Aids for Gaping Wounds**

It is perhaps naïve to believe that humanitarian relief workers’ collaborative efforts with local healthcare professionals in the developing world are a substitute for retaining local doctors. Aside from language barriers or a general lack of familiarity with local problems that may impede demonstrating cultural-sensitivity when administering treatments, international humanitarian aid workers efforts are only short-term band-aids. Médecins Sans Frontières (MSF), an international humanitarian aid organization that provides emergency medical assistance to endangered populations in more than 70 countries, has issued grave indictments against medical brain drain. The organization cautions that it affects people in impoverished and instable countries hardest, particularly those patients suffering from neglected diseases for which competent medical professionals as well as diagnostic, treatment, or prevention tools are lacking (Medecins Sans Frontieres 1999). MSF conducts 70 percent of its missions in African countries because the shortage of medical professionals is so acute. Note also that their workforce is included in the disturbingly low doctor-to-patient ratios (1 for every 10,000 people in Kenya, for example) previously cited (Brockmann 2006).

Other humanitarian relief agencies, including *Physicians for Human Rights*, have similarly recognized the limitations of their efforts and are promoting “action plans” to curb medical brain drain (Physicians for Human Rights 2004). UNICEF notes that long-term development partly depends on reducing medical migration: “A holistic approach to capacity development should include attention to higher education, wage policy and other incentives, and reversing the brain drain, with the United Nations playing a strategic role.” Humanitarian relief efforts are essential short-term solutions given the dire situation but they cannot fully compensate for the paucity of local professionals and the ensuing problems in development and reform created by the brain drain (United Nations International Children’s Emergency Fund 2006). More importantly, such organizations are the first to admit that their efforts are unable to fill the resource vacuum created by the medical brain drain.

Having established the metrics of medical migration and identified the causes propelling it as well as the inability of remittances and humanitarian efforts to fully compensate for the problems it engenders, we turn to policies that may reverse the trend.

## **POLICY MEASURES: POSSIBILITIES FOR REVERSING MEDICAL BRAIN DRAIN**

The causes of brain drain are complex and interrelated, involving social, political, and economic factors (Physicians for Human Rights 2004, 14). The policies needed to reverse the fatal flows of physicians must therefore be diverse and broad. Policies that may reverse Brain Drain include making medical school scholarships contingent on returning to one’s country of origin, opening more medical institutions in developed countries, increasing medical school enrollment numbers in the US to saturate the domestic market, giving countries development aid equivalent to the amount of money lost when local physicians migrate, and using humanitarian aid to increase the salaries of foreign doctors that forgo the economic temptation of medical migration (Wall 2005).

### **Creating Incentives to Attract Doctors Back Home**

Scholarships for future physicians who anticipate practicing in their country of origin would allow international students to study in the US, where they can benefit from superior scientific technology and medical knowledge, before encouraging them to return home. Foreign exposure often makes these students valuable assets upon returning to their countries of origin. Norman Wall writes, “A small portion of [India’s] talent is returning, their influence amplified beyond their numbers by their high-level skills and education, new cultural perspective and, in many cases, ample wealth” (Wall 2005). And, as Man Singh Das suggests, countries experiencing an exodus of trained brains can entice its intellectuals to return after studying abroad by offering them monetary compensation or other selective benefits (Das 1972). Linking medical school acceptances or scholarship funds to a stated commitment to return home, is only part of the solution since “attempts to limit opportunities for foreign-born doctors will simply discourage talented young men and women in third-world countries from going into medicine in the first place” (Carr 2005). A more comprehensive and viable solution would simultaneously include improving the pay, benefits and working conditions for doctors in impoverished countries.

### **Resolving our Own Shortages in the Global North**

Opening more medical institutions in developed countries and increasing existing levels of enrollment is a very feasible proposal, but the medical community must first confront a deeply ingrained elitism that has created a “strong bias in favor of training an elite few for research instead of rank-and-file general practitioners,” according to one lifelong doctor (Wall 2005). With more private support, and the opening of faculty slots to clinical physicians, new medical schools geared toward training general practitioners would increase the supply of American-trained doctors at a relatively low cost (Wall 2005). The Council on Graduate Medical Education suggests medical schools increase enrollment by 15 percent over the next decade (Wall 2005). Kapur and McHale note rich countries have a “moral obligation” to train all the doctors and nurses they need from within their own populations. They suggest rich countries issue more temporary worker visas—compelling more immigrants, sooner or later, to take their skill sets and go home (Reynolds 2005).

Since the U.S. lacks an adequate number of medical schools partly due to the American Medical Association’s “restrictive attitude” regarding keeping medical enrollment low in the United States,” the US could help reverse brain drain by training enough doctors to service its own population rather than relying on foreigners (Adams 1968). As Dr. Mullen notes, “The desire of ambitious physicians to seek better practice and economic opportunities is understandable, but less defensible are the medical-education policies of Anglophone countries that fail to train a sufficient number of physicians to meet their own needs and then draw on the ambition of doctors educated elsewhere” (Mullan 2005). Developed countries should resolve their shortages by themselves instead of streamlining immigration for doctors from countries that desperately need them. Expunging elitism from the medical industry by allowing more people to obtain an M.D. (and at a more affordable cost) would help lower-income nations to retain physicians and focus training on national needs rather than on the international physician market.

## **A “Humanitarian Aid for Medics” Campaign**

Under an “aid for medics” arrangement, developed countries would help subsidize development efforts in underdeveloped countries when they acquired one of their migrating doctors; the money would be channeled into infrastructural renovations, building hospitals, outfitting clinics, purchasing needed medicines and augmenting the meager pay of local health care providers. Paul Farmer, co-founder of the international health and social justice organization Partners In Health, affirms this more holistic approach: “If we want these [humanitarian aid] dollars to be invested wisely, we have to link our projects to rebuilding health systems, to poverty alleviation, and to food security—both at the level of individual patients and their families and at the much more macro level” (Farmer 2005). Farmer’s words are particularly important to heed considering most scholars today agree that “a major cause of both economic and forced migration is the huge gap between North and South in economic prosperity, social conditions, security and human rights” (Castles 2004, 221). As Physicians for Human Rights notes, “wealthy nations should reimburse developing countries for the training costs and health impact of health professionals who migrate from developing to developed countries” (Physicians for Human Rights 2004).

Since the US and other Western countries currently benefit from unrestricted access to immigrant doctors, one may wonder what incentive they would have to collaborate in a “humanitarian aid for immigrant medics” campaign. Sachs implies such an arrangement would be in the strategic interest of the West: “By showing our abiding concern for the plight of Africans by helping to save millions of children who are at risk of death from disease [and] in honoring the sanctity of the lives of the least among us, we have the best chance to defeat the ideologies of hate” (Sachs 2006). U.S. involvement in an “aid for medics” campaign could be in the best interest of the country’s security if Sachs is correct in his assumption that people will be less keen on committing acts of violence against their benefactors. Scores of people were killed in a succession of car bomb explosions at the United States embassies in the East African capital cities of Dar es Salaam, Tanzania and Nairobi, Kenya in 1998. As Sachs notes, philanthropic gestures towards impoverished nations may dissuade people from committing such acts of violence in the future.

Another reason in support of a “humanitarian aid for immigrant medics” campaign is that the West would need to provide less humanitarian aid since, as Joseph Stiglitz notes, brain drain is currently “another way in which developing countries wind up subsidizing the developed” (Stiglitz 2006, 51). When the West stops “stealing the developing countries’ intellectual property,” developing countries will require smaller and smaller levels of humanitarian assistance (Stiglitz 2006, 51). Stiglitz suggests that curbing brain drain will reverse the fact that “returns to education as well as to physical capital are still higher in developed than in developing countries,” which impedes development and, in turn, creates a demand for foreign assistance (Stiglitz 1999). As Physicians for Human Rights notes, “If governments and international organizations take as one of their own guiding principles the integral role that investments in health systems have in the development process, including to economic growth, they should be willing to make the corresponding investments. Good health is needed for economic development” (Physicians for Human Rights 2004). In the future, less money will be needed for development assistance if poorer countries are compensated for emigrating medical staff.

Providing scholarships for nationals willing to return home and resolving personnel shortages in developed countries are important steps towards curbing medical migration. However, as Paul Farmer notes, “medical brain drain will slow or be reversed if we provide our African colleagues with the tools they need to do their jobs properly and pay them a living wage” (Physicians for Human Rights 2004). While subsidizing salaries would assist efforts to retain local doctors and in turn alleviate the burden of the poorest patients, we must also recognize that people dying of consumptive diseases like AIDS or TB require not only medical treatment but also such basic necessities as food and clean water. Indeed, proactively working towards equalizing the socio-economic playing field is arguably the first step towards making medical professionals and quality healthcare equally available across geography.

Others, such as Rubin Patterson, suggest brain drain can be converted to “brain circulation”—where information is exchanged through international channels in a mutually beneficial manner—via joint technological expansion agendas with the Developed World (Patterson 2005, 83-84). Patterson notes that, unlike African nations, a number of Asian nations have a brain circulation or technical talent continuously cycling out of the homeland into the United States where the talent is amplified and wealth is generated as the homeland state encourages redirection of some of each to the homeland economy (Patterson 2005, 83-84). In such cases, the homeland state and the US-based diaspora work collaboratively in the interest of both. African nations experience little of this brain circulation, partially as a result of weak homeland collaborative development agendas. Patterson notes that “developing nations with ongoing collaborative technology development agendas between the homeland state and its U.S.-based Diaspora have a huge comparative advantage over those developing nations that do not” (Patterson 2005, 83-84). Perhaps African countries would experience increased “brain-circulation” if homeland states encouraged redirection of the talent and wealth to the homeland economy through collaborative scientific projects with developing nations. If the benefits of immigration are to be maximized and its adverse consequence minimized, “governance of international migration should be enhanced by improved coherence and strengthened capacity at the national level; greater consultation and cooperation between states and the regional level, and more effective dialogue and cooperation among governments and between international organizations at the global level” (Global Commission on International Migration 2005, 4).

In the End of Poverty, Sachs suggests rich-country donors must proactively bolster scientific development in impoverished countries regardless of their own advantage in such an enterprise:

Efforts are needed to create scientific capacity in sub-Saharan Africa and other very low-income regions. The task is particularly difficult, since it is swimming against the powerful current of brain drain. The few scientists trained in Africa go abroad in search of laboratory equipment, colleagues, and grant support. The infrastructure for science—well-financed universities, laboratories, and a critical mass of research funding and collegial support—will have to be built, and just like other infrastructure, this one will require the backing of rich-country donors. They will have to understand the critical importance of investment in higher education alongside primary education (Sachs 2005, 259).

Sachs recognizes that rectifying the world’s inequalities requires a concerted effort by industrialized nations. While many of the world’s wealthy indulge in Thomas Friedman’s view that the globe is now “flat” and the competitive playing field is equally accessible to all people, the world’s poorest will continue to suffer as the fruits that their countries have nurtured continue to roll towards the more fertile corners of the global North. As Oxford professor Stephen Castles notes, tackling the complexity of South to North migration must include a program to decrease global economic disparities:

The vast disparities of wealth and power in the emerging global order mean that not all citizens are equal and that some passports are better than others. Such hierarchies may be the basis of a new system of global economic stratification, in which migration—in all its guises—is a key element. In this context, migration control is really about regulation North-South relationships and maintaining inequality. Only when the central objective shifts to one of reducing inequality will migration control become both successful and—eventually—superfluous (Castles 2004, 223-224).

Given this power and resource imbalance, it is debatably the world’s wealthy—not its poorest—who will have to use their position of privilege and spearhead the campaign of making the world meaningfully equal.

Within the health system, redistribution—defined as “all social processes that create increasingly inclusive or egalitarian access to resources”—must become a central objective of health policy (Millennium Project Task Force on Child Health and Maternal Health 2005, 19). In turn, a more equitable playing field would empower poorer countries by giving them the economic leverage that they desperately need to negotiate fairer policies, policies that would make them less dependent on the munificence of their richer counterparts. Physicians for Human Rights advocates a comprehensive framework for addressing medical brain drain: “If all are guided by principles of human rights and equity, and commit to policies and investments that will end inequitable health systems, with rich people and rich countries on one hand, and poor people and poor countries on the other, then Africa and the world will overcome this deepening [medical brain drain] disaster” (Physicians for Human Rights 2004). And, as many reputed economists including Joseph Stiglitz and Jeffrey Sachs now agree, eliminating poverty and creating a more equitable world is fiscally feasible in the near future. Unfortunately, “the chasm between what we know and what we do, between our ability to end poverty, despair, and destruction and our timid, often contradictory efforts to do so lies at the heart of the problem” (Millennium Project Task Force on Child Health and Maternal Health 2005, 2).

### **CONCLUSION: MEDICAL BRAIN DRAIN AS SYMPTOM OF UNEQUAL OPPORTUNITIES IN A GLOBALIZED WORLD**

Medical migration drains destitute African countries of a large portion of their local physicians. The brain drain phenomenon is fueled not only by migrating doctors’ pursuit of economically and professionally enriched careers in the North but also by severe shortages of doctors in recipient countries, which create a demand for international physicians. While the infusion of capital into donor countries in the form of remittances is far from negligible, there is little evidence that the money trickles-down to those who are most negatively affected by the brain

drain phenomenon and in desperate need of medical attention. Besides not fully financially compensating for the sum of money impoverished countries spend on educating soon-to-migrate professionals, remittances also fail to encourage development initiatives that elite professionals may otherwise demand if they remained at home.

Their shortages of medical staff impede developing countries’ progress toward achieving the goals articulated in the Universal Declaration of Human Rights: an *equal* right to a standard of living adequate for health and well-being (Universal Declaration of Human Rights). Individual physicians understandably have a right to emigrate, but the international community must create a world that facilitates individual decisions that would further the mandate of the UDHR in all corners of the world. Ensuring that healthcare is accessible to—and used by—all those who need it also means tackling the social, economic, and political context in which people live and in which health institutions are embedded (Millennium Project Task Force on Child Health and Maternal Health 2005, 6). Similarly, while humanitarian relief efforts undertaken by a handful of inspiring individuals and international organizations doubtlessly provide much needed critical care, the people involved in such efforts are the first to speak out against brain drain and admit to their own inability to fully tackle the enormity of the problem.

Policies that may possibly reverse brain drain include making medical school scholarships contingent on returning to one’s country of origin, opening more medical institutions in developed countries, increasing medical school enrollment numbers in the US to saturate the domestic market, giving countries development aid equivalent to the amount of money they lose when a local physician migrates, and using humanitarian aid to increase the salaries of foreign doctors that forgo the economic temptation of medical migration.

Countries stunted by medical brain drain are facing a Sisyphean battle: “Stymied by conflict, poverty, killer diseases and corruption, much of Africa is in no position to compete with richer countries that promise bigger salaries, better working conditions and political stability,” reports *Reuters’* Nguyen (Nguyen 2006). These countries will not be able to retain their desperately needed medical community without the help of the West, which eventually could benefit from having to spend less dollars in humanitarian relief and security as suggested by Jeffrey Sachs. In an increasingly integrated world, countries such as Ghana and Kenya need a huge head-start in order to compete in the race to retain their own—let alone attract other countries’—high-skilled professionals. Instead of nurturing a blind faith in the “magic of the market” to iron-out these disparities, the international community should take proactive steps to support countries that would benefit from protectionist measures as well as proffer no-strings-attached development aid.

In this paper, I have argued that medical brain drain exemplifies how global economic disparities have contributed to an uneven playing field that is enriching wealthy nations at the expense of already impoverished ones. Medical migration is driven by the desire to escape the manacles of poverty; however, poverty’s grasp is debatably fortified in the phenomenon’s wake. Reversing medical brain drain would arguably require tackling the grisly problem of extreme poverty itself. As Thomas Pogge notes, the effects of poverty are felt much more strongly in certain parts of our world: if the developed Western countries had similar proportional shares of poverty-related deaths, 3,500 Britons and 16,500 Americans would die per week (Pogge 2002,

98). If the US suffered from the abject poverty endemic in other nations, the tragedy of 9/11 would occur every other day in terms of the numbers dying.

We live in a world of abundant wealth where no one should die from poverty (or poverty-related illnesses). Making participation in the global economic game more inclusive and supportive of the world's disenfranchised and destitute people, implementing proactive measures to protect the world's most vulnerable people from the unfettered forces of the open market, and ending the endemic poverty plaguing an unevenly developed world without attaching any burden of debt on poor countries are prerequisites for plugging brain drain and providing the world's poorest with the medical care they direly need.

## ENDNOTES

<sup>1</sup> For more information see: Physicians for Human Rights. *An Action Plan to Prevent Brain Drain: Building Equitable Health Systems in Africa*. 2004. Executive Summary, Chapters 3, 4 and 6. Pp. 1-12, 17-36 and 111-19

<sup>2</sup> Qtd in: Mullan F, Politzer RM, Davis CH. Medical migration and the physician workforce: international medical graduates and American medicine. *JAMA* 1995;273:1521-1527.

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