

**Flows and Reverse Flows:
International Medical Graduates in the United States
and U.S. Doctors Working Abroad**

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Introduction

Graduates of medical schools from outside the United States play a major role in the provision of health services in the United States. The portion of the U.S. physician workforce that is filled by international medical graduates (IMGs) has grown steadily over the last half of the twentieth century to its present 25 percent. For the last decade, residency programs in the United States have also been populated by approximately 25 percent international medical graduates meaning that the situation is stable and the U.S. workforce is likely to remain 1/4 foreign trained for the immediate future.

The countries of origin of international medical graduates in the United States is quite varied but 60 percent currently from nations that are deemed low or lower income by the World Bank. Many of these same countries have substantial long term health problems such as tuberculosis and malaria as well as onrushing epidemics of HIV/AIDS.

These circumstances have promoted increasing discussion in the United States about the appropriateness of our long term medical education policies which have become so heavily reliant on physicians from abroad. At the same time, and sometimes linked, renewed discussions are occurring in the United

States concerning programs and principles related to sending U.S. physicians abroad to high impact HIV/AIDS countries and other low income settings.

This paper will briefly review the policies and issues related to international medical graduates in the United States – sometimes referred to as “flows” -- and policies and principles related to mobilizing U.S. physicians for work abroad – often called “reverse flows.”

International Medical Graduate Issues

Two facts are essential to understanding US policy in regard to IMGs. First, from the middle of the twentieth century on, the US hospital sector has grown faster than have medical schools, meaning that there has been a growing gap between the number of US medical graduates and the residency positions available in hospitals. This gap has been closed by IMGs. Second, to obtain medical licensure in the United States, all medical school graduates – US educated or non-US educated -- must have residency training in the US. Therefore IMG policy considerations are closely tied to GME policy issues.

Historically, the principal avenue established for physicians to enter the United States from abroad was established in the mid-twentieth century as the

J-1 visa. This is an exchange training visa in which the individual is obliged to return to his or her country of origin following the training period – residency. The underlying concept in the J-1 visa is the provision of training for physicians from abroad who would carry that training home while at the same time providing clinical services in the hospitals where they did their residency programs. The intent of this policy, however, was quietly eviscerated by the introduction of a waiver provision to the J-1 visa return-home requirement made in the 1970s. The waiver eliminates the return home requirement if the J-1 visa holder commits to a two-year period of clinical work in a Health Professions Shortage Area – the same geographic areas targeted for service by the U.S. domestic program, the National Health Service Corps. Following the work in a shortage area, an IMG is eligible for permanent resident status.

Although the waiver program was originally controlled centrally by several federal agencies, its reach and popularity was extended greatly by legislation in the 1990s that allowed each state 20 J-1 visa waiver positions each year, a program that has now been increased to 30 per state per year and named after its senatorial sponsor as the “Conrad 30” program. It is particularly popular in rural states that consider it as something of an entitlement. Between the Conrad 30 program and the federal agencies still granting waivers there are currently more positions available than there are J-1 visa holders exiting residency each year. The result is, as far as can be told, that virtually all J-1 visa holders remain in practice in the United States.

Two other phenomena have quietly impacted IMG policy. A new visa status, the H-1B, has been introduced for technical workers in categories of employment deemed in short supply. The H-1B has been particularly popular in the information technology sector. However, hospitals that can establish a shortage of medical personnel can receive H-1 visa designation and fill the slots with international medical graduates who have no return home requirement. Following residency they become eligible to apply for permanent resident status.

Additionally and paradoxically, the largest categories of IMGs in training today are U.S. citizens and permanent residents.

The numbers of American students who go abroad for education has ebbed and flowed over the years depending upon the popularity of medicine as a profession. That number has risen briskly in recent years with more than 2,500 U.S. citizens trained abroad beginning the ECFMG certification process this year. There are now 27 medical schools in the Caribbean that cater primarily to the US medical student market.

The large number of permanent resident IMGs are thought to be the result of growing numbers of bi-national families from countries such as India and the Philippines. First degree relatives are eligible for permanent resident status, therefore many individuals who have gone to school abroad but have siblings,

spouses, parents or children who are U.S. citizens can establish permanent residence and avoid more complicated temporary visa status as they apply for residency training.

All graduates of foreign medical schools must establish eligibility for residency training by obtaining certification from the Educational Commission for Foreign Medical Graduates (ECFMG). This entails a series of examinations (the USMLE) that today are identical with examinations required of U.S. medical graduates for eligibility for licensure. The applicants for the ECFMG therefore can tell us a good deal about the global market for U.S. medical opportunities. Over the years the numbers have varied due to a variety of global factors but during the past the five years the numbers of applicants and certificands have climbed steadily such that almost 10,000 certificates are being granted annually. This number is substantially in excess of the 5,000 to 6,000 positions available annually in entry level GME positions not filled by U.S. medical graduates.

In summary, a very specific system for the movement of international medical graduates into U.S. medical training and practice has been established. This system includes the excellent standard setting carried out by the ECFMG and a variety of visa circumstances that allow international medical graduates with the funds, the patience and, ultimately, the test taking ability to enter practice in the United States. The magnitude of this flow in future years will, in all likelihood, be determined by two sets of decisions which will not be argued on the

merits of IMG policy but rather on issues of undergraduate medical education and federal subsidy for residency training.

If more medical schools are opened or current schools expand their capacity for the training of domestic physicians, more positions in graduate medical education will inevitably be occupied by U.S. medical graduates, decreasing the opportunities for IMGs. If, on the other hand, the federal Medicare program chooses to lift the current limitation that it has on the number of residencies that it subsidizes, there will be a rapid creation of more residency positions. Absent a brisk growth in U.S. undergraduate medical education, the only source of physicians to fill the new residency slots would be IMGs and current trends would suggest that there are ample numbers of competent individuals poised to respond should the opportunity arise.

It is my position that a responsible policy on the part of the United States would be to rapidly increase the number of undergraduate medical student positions, both to avail more U.S. students the opportunity to go to medical school “on shore” and to diminish the pull on the rest of the world that our chronic shortage of physicians creates. It is my additional belief that the current size of the physician workforce (approximately 280 per 100,000 population) is reasonable and to the extent we need further clinical capacity, we should build it through non-physician clinicians who have been proven to work effectively in both the specialist and generalist sector.

Reverse Flows

In the United States as in other developed countries there is a long and honorable history of physicians going abroad to less developed countries to provide clinical service and medical education. Albert Schweitzer (admittedly not an American) is probably the world's best known poster boy in this regard. Programs to send doctors abroad in today's context have been dubbed "reverse-flows" by the WHO and others working in the field. Religious motivation has often under-girded such efforts with early missionaries and faith-based organizations having a long and proud record of service abroad. The U.S. government has deployed (non-military) physicians abroad in small but significant numbers over the years with the Centers for Disease Control playing the principal role as a government agency. Other non-governmental, non-faith-based organizations such as Project Hope and Doctors of the World have likewise sent physicians to poor communities for programs of service. In 1981, Dr. Tim Baker of Johns Hopkins published an article in JAMA in which he attempted to determine the number of Americans serving abroad and he concluded that at that time it was .32% of the US physician workforce – 1/3 or 1 percent.

The global AIDS epidemic has changed thinking in this area. If the epidemic has a positive aspect, it is that it has galvanized the attention of the world on suffering and the paucity of healers of any sort in many hard hit regions. Not only have organizations traditionally concerned with global health been energized by the epidemic but many institutions and individuals not previously active in this area are now striving to help. The growing understanding of the devastation of the epidemic as well as an increased sense of the interdependence of nations for global security has brought many players to the field who have not been there previously.

When these perceptions are arrayed alongside the well established dependence of the U.S. medical sector on IMGs, many of them from high impact HIV/AIDS areas, new questions arise about U.S. workforce policy and what might be done to modify it in such a way as to help rather than hurt poor countries. This in turn highlights the question of reverse flows – what might be done to mobilize physicians (and other health workers) to work abroad contributing to building better health systems and combating the epidemic? New players in the field make this point in a variety of ways. The Bill and Melinda Gates Foundation has weighed in heavily as a new private philanthropy focusing attention and resources on global health inequities. The Joint Learning Initiative sponsored by the Rockefeller Foundation and the World Health Organization has brought a new concern and new metrics to issues of global workforce. The President's Emergency Plan For AIDS Relief (PEPFAR), a \$15 billion five-year commitment

by the U.S. government to prevent the spread of HIV/AIDS and treat the disease, is the most substantial commitment yet made by the U.S. government.

No single inventory exists of current U.S. programs or clinicians working abroad. It is worth noting the categories of organizations that promote this work, however, since each has a somewhat different constituency and formula for action. The private sector with both faith based and secular non-governmental organizations is undoubtedly the most active and varied launch pad for reverse flows. These organizations range from small missionary groups through large companies with contracts from USAID -- with all variations along the way. Doctors Without Borders, the International Medical Corps, the Mission Doctors Association, the United Methodist Committee on Relief, Family Health International, and American International Health Alliance are but a smattering of names active in the field.

The federal government has become much more active in global health issues in recent years. The CDC remains the lead agency in the deployment of medical personnel with more than 200 currently assigned abroad. The Peace Corps has programs in the health area, some focusing on HIV/AIDS, although physicians do not figure prominently in their staffing. PEPFAR is the major new player in governmental activities and while it has a capacity-building mandate, most observers consider that to date the effort in this area has been rather modest. They fund one large contract through American International Health

Alliance, a private company that is supposed to promote twinning programs between U.S. institutions such as universities and their counterparts in designated high impact HIV/AIDS countries. Additionally, PEPFAR funded a study by the Institute of Medicine to propose ways in which more U.S. health professionals could be mobilized to work in the designated countries. The report entitled *Healers Abroad: Americans Responding to the Human Resource Crisis in HIV/AIDS* was released in April, 2005 and called for the formation of the U.S. Global Health Service – a Peace Corps for health. Thus far, the PEPFAR administration has been “studying” the proposals but has implemented none of them.

In the meantime, however, Senator Bill Frist, the Senate Majority Leader and a physician, has introduced a Global Health Corps bill which calls for a federal program of five hundred health professionals deployed abroad as well as 500 health dedicated Peace Corps volunteers working with them. Given Senator Frist’s stature as a physician and a politician, there is a real possibility that this proposal might be passed sometime in the next twelve months.

Reverse Flows Collaborative Agenda

The issues involved in the field of reverse flows – the organizations, participants, clinical placements, partner countries. duration of service,

remuneration, etc. – are complex when viewed from the perspective of one nation and would be the more so when examined across potential sending nations. In some senses the strength of the programs in the reverse flow areas comes from their variety and the spirit of volunteerism and activism present in many of them. None-the-less, the strategies, logistics, opportunities, and hazards of this movement might well benefit from greater national and trans-national attention. A place to start would be the development of a taxonomy for the description of such programs. National inventories of participating organizations would be helpful to participating clinicians, funders, and governments. Norms, standards and definitions might be developed that would help facilitate and streamline reverse flow programs. A research and policy agenda might be developed involving both sending and recipient countries examining important issues such as efficacy, generalizability, and impacts on local workforce.

I suggest this in the spirit that developing an agenda for reverse flows research and policy might well be a topic for future IMWC conferences and member collaboration. The topic is on the table in all of our countries; the field is wide open; it is a workforce issue; and it would provide an on-going bridge for the IMWC to the challenges of global health.