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Doctors and Soccer Players — African Professionals on the Move

Fitzhugh Mullan, M.D.

On June 22, 2006, the nation of Ghana erupted. SUVs flew through the streets of Accra with flag-waving celebrants jammed through sunroofs. Crowds led by shirtless drummers banging garbage-can tops snaked down major roads, picking up revelers as they went. Hundreds of thousands of people took to the streets, shouting jubilantly. Ghana, playing in its first World Cup, had beaten the United States and earned a berth in the final stage of the global soccer pageant. It was a paroxysm of national pride that Ghana had rarely experienced.

Medical Students at the University for Development Studies, Tamale, Ghana.

"It's the same for football players as it is for doctors," I was told by Tsiri Agbenyega, dean of the medical school in Kumasi, Ghana. "We have to train a lot more than will end up in Ghana, because they all leave. The football players go to Europe, and the doctors to America and the U.K." Agbenyega spoke with a mixture of frustration, pride, and resignation. He was pleased that Ghanaian athletes and physicians were competitive internationally, but their success meant a loss to the country — a loss more problematic in medicine than in football.

The World Bank considers Ghana a low-income country, but its 20 million people enjoy natural resources (gold, timber, and cocoa) and a relatively stable recent political history. Ghana has a strong tradition of education, a public health system that has resulted in greater longevity and lower infant mortality than in much of West Africa, and a prevalence of HIV infection among adults of 2.3% — lower than the sub-Saharan African average of 6.1% and far lower than southern African levels exceeding 20%.[1] So the country would seem to be in a good position to build and sustain a health care workforce that could rapidly reduce loss of life among infants and parturient women in Ghana (both mortality rates are more than 10 times those in high-income countries[2]) and initiate widespread antiretroviral treatment to stem its AIDS epidemic. If Ghana could show the way, one might think, other African countries might be able to follow.

But not so. For much of the past decade, health improvement in Ghana has been at a standstill, and health statistics in many sub-Saharan African countries are sliding backward.[3,4] AIDS is a culprit, but so is the exodus of doctors and nurses who are lured by U.S. training and employment opportunities. According to the Ministry of Health, Ghana has about 13 physicians per 100,000 population (as compared with 256 in the United States) and about 92 nurses per 100,000 (as compared with 937 in the United States). Today, there are 532 Ghanaian doctors practicing in the United States. Although they represent a tiny fraction of the 800,000 U.S. physicians, their number is equivalent to 20% of Ghana's medical capacity, for there are only 2600 physicians in Ghana. An additional 259 Ghanaian physicians are in practice in the United Kingdom and Canada — and this group includes only those who have successfully been licensed after leaving Ghana. In other countries, the situation is even worse: 60% of Liberia's physicians are in practice in the United States or Britain.[5]

> ***For years, we have been educating about three quarters of the doctors we need and relying on the rest of the world to supply the balance.***

"Our only recourse is to try to train more in the hopes we will keep more," explained Yaw Boasiako of Ghana's Ministry of Health, who outlined an ambitious plan for doubling the number of physicians and nurses educated in the next few years. Ghana, like many English-speaking developing countries, is caught in an educational conundrum: the better the quality of their universities and the more health professionals they train, the more they lose to the United States and the United Kingdom. They have a leaky bucket now. In desperation, they're building a bigger leaky bucket.

But that's not all they're doing. As in most developing countries, the private medical sector is small, and most physicians work for the government health service, which staffs the public hospitals and clinics where most people receive care. Although the salaries of Ghanaian doctors are better than those in many African countries, doctors are quick to point out that their pay is still modest. "A trained physician can make more in London in two months than we can make in a year in Ghana," I was told frequently. Struggling with a limited budget and against the lure of Western incomes, the government has embarked on some creative strategies to retain physicians. These include pay increases, cheap car loans for doctors in "hardship posts," and a plan to subsidize staff housing in rural areas. To address the desire of medical graduates to obtain specialty training, the government has launched an expanded program of in-country medical residencies.

To augment physicians' services, the ministries of health and education are expanding training opportunities for community health nurses, technical officers, and "medical assistants" — mid-level practitioners who substitute for doctors in shortage areas. For many years, the Rural Health Training School in Kintampo has provided experienced nurses with a year of advanced training and 6 months of internship to enable them to function independently as medical assistants. The school is doubling its class size to 200 but is changing to a non-nurse model, since the loss of nurses to emigration has depleted the ranks of program candidates. In the future, medical assistants will be secondary-school graduates who will receive 3 years of didactic training followed by a year of internship. Although all health care workers are subject to the pull of emigration, the global market for midlevel practitioners is not standardized, and the government hopes that most medical assistants will remain in Ghana.

There are some physician reinforcements available, particularly from Cuba — currently, 200 Cuban doctors make up 7% of Ghana's physician workforce. But when I asked a class of Ghanaian medical students how many of them would like to go abroad for further study after graduation, virtually every hand went up. When I asked, "How many of you think you would come home again?" about half the hands went down. Many of them see their futures in New York or London, where they believe professional and income opportunities will outweigh any hardships associated with leaving their country. Given the massive economic imbalance between the West and Africa, even the most creative domestic employment strategies may not do much to curtail this ambition.

Nonetheless, much can be done in the developed world to help build the health workforces of developing countries, including continued investments in training and retention programs and an increased commitment by U.S. health care professionals to work in developing countries. However, the single most important contribution that the United States could make would be to train more doctors at home. About 25% of the physicians practicing in the United States went to medical school abroad — as did roughly the same proportions in the United Kingdom, Canada, and Aus-

Pakistani Physicians and the Repatriation Equation

Saad Shafqat, M.B., B.S., Ph.D., and Anita K.M. Zaidi, M.B., B.S.

In Pakistan, students who are accepted into medical school are congratulated — only half-jokingly — on three counts: that they will become doctors, that they will become certified by the American Board of Medical Specialties, and that they will soon be living in the United States.

Pakistan has contributed approximately 10,000 international medical graduates (IMGs) to the United States,[1] even though it faces a shortage of physicians.[2] Take the case of Aga Khan University Medical College in Karachi. By 2004, it had produced 1100 graduates, 900 of whom had gone on to graduate medical training in the United States — despite the fact that doing so costs up to $20,000 (a fortune for most Pakistanis) and means leaving the comforts of one's home and culture.

The United States represents an overpowering lure: a rigorous system of graduate medical education, a merit-based structure of professional rewards, and a culture of academic nurturing. And, of course, material rewards. In Pakistan, an intern earns approximately $150 per month (the same salary as an unskilled, illiterate worker), whereas a U.S. intern can afford to live independently — and expect a better quality of life after residency.

Information from Pakistani medical institutions indicates that only about 300 of the 10,000 U.S.-trained Pakistani physicians have resettled back home. Why did this minority choose to return? Aga Khan's experience is instructive: the majority of the medical school's 40 or so alumni who have repatriated from the United States have joined its faculty.

Motives for returning include aging parents and family ties, a desire to raise children in a familiar culture, and an emotional need to be home. But for many Aga Khan returnees, the attributes of the university and its hospital were key: teaching, research, and clinical care are patterned after the U.S. model, and salaries permit a comfortable lifestyle. Ultimately, attractive career prospects have to be the draw.

The challenge is local capacity to absorb highly trained physicians. U.S.-trained physicians represent a small fraction of Pakistan's 116,000 doctors,[2] but they return with ambitions to set new standards for clinical practice, education, and research and to influence academic medicine, health policy, and public health. To do so, they must negotiate local circumstances for which they are unprepared: exhausting clinical demands, an impoverished population, an environment in which malnutrition is a significant cause of death, collapsed health care delivery systems, and patients who respond to an unjust society with mistrust. Inevitably, they also face questions from local professionals about the appropriateness of U.S. training for practice in Pakistan.

Discussions with expatriate physicians indicate that many more wish to return but cannot find suitable jobs. Like many poor countries, Pakistan has both severe shortages of health care professionals and a high level of unemployment among physicians — a paradox caused by inadequate and inappropriate investment in local health care systems. Elite medical academies in developing countries are frequently derided as manufacturers of a product that, out of place in its environment, enters a workforce supply chain leading to the West.[1,3] The answer, however, is not to lament the irrelevance of these institutions but to advocate for more — for they can attract back highly trained professionals who have the potential to assume leadership roles. Repatriated Aga Khan graduates have won grants from major international agencies, established nonprofit research organizations, joined hospitals serving refugee populations, and led disease-control programs. Such academic institutions can play pioneering roles if they reorient their priorities to match their countries' needs — producing professionals with a strong public health ethic, establishing rigorous graduate programs in which trainees are paid good wages, and developing relationships with alumni that can help sustain rewarding careers in challenging environments.

Exhorting physicians to serve in environments to which their skills are ill-suited will not lure IMGs home. Barriers to immigration in individual countries are almost meaningless in a globalized world. For example, as immigration laws in Western countries are tightened, Pakistani physicians are seeking jobs in the Middle East. We believe that developed countries that import physicians to meet their own demands have a moral obligation to invest in improving health care systems in countries that train substantial segments of their workforce. Such investments provide employment opportunities for the diaspora of health care professionals, benefiting health in developing countries.

As a first step, the U.S. medical community can support IMGs who want to repatriate. U.S. academic medical centers could work with institutions in developing countries to develop training programs oriented toward global health,[4] availing themselves of growing funding opportunities for such endeavors.[5]

One approach is to offer motivated IMGs mentoring to equip them with skills needed in their home countries. The scheme could be formalized through international cross-appointments for mentor and mentee at each other's institutions and a bilaterally recognized role for the mentor. Such initiatives are desperately needed; properly done, repatriation of IMGs can help diminish vast disparities in health care.

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tralia.[5] For years, we have been educating about three quarters of the doctors we need and relying on the rest of the world to supply the balance. For 25 years, the number of students admitted to U.S. allopathic medical schools has remained constant, while the number of physicians we import has climbed steadily. Without ever enunciating a strategy of dependence on the world, we have created a huge U.S. market for physicians educated elsewhere, inadvertently destabilizing the medical systems of countries that are battling poverty and epidemic disease.

A commitment in the United States to ramp up medical school opportunities to a level closer to national needs would do much to slow medical migration and bring stability to medical programs in poorer countries. Perhaps soccer players will always migrate to the elite leagues of the world, but if doctors and nurses stayed closer to home, lives would be saved.

An interview with Dr. Mullan can be heard at www.nejm.org.

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