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Responding to the Global HIV/AIDS Crisis

A Peace Corps for Health

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HIV DISEASE IS ESSENTIALLY THE BLACK DEATH OF the 21st century, killing on a massive scale and threatening to cripple economies and topple governments. However, the continued spread of the HIV epidemic and the new availability of lifesaving antiretroviral drugs have triggered an extraordinary response by governments, international organizations, philanthropies, pharmaceutical companies, religious organizations, and individuals. Campaigning against HIV/AIDS has no precedent in the history of medicine. Smallpox was eliminated by a globally coordinated strategy that required a single patient encounter to deliver the vaccine. In contrast, the directly observed therapy strategy at the core of modern tuberculosis treatment necessitates daily patient contact over much of the treatment course and, therefore, a much larger health workforce. Treating AIDS requires the daily delivery of medications as well as the clinical management of patients—for the rest of their lives. Antiretroviral medications can help control disease, but do not cure it. More problematic yet, stopping treatment once started promotes the emergence of resistant strains of the virus, making half-way programs hazardous to public health. The sheer volume of health workers needed to tackle HIV disease—and the health systems to support their work—is off the scale of any previous public health campaign.

This challenge is compounded by the impoverished nature of the health systems in many countries where HIV/AIDS is rampant and, in particular, by the critical shortage of physicians, nurses, and other health workers in these nations. The 2006 *World Health Report* from the World Health Organization¹ focuses the issue. Sub-Saharan Africa with 11% of the world's population has 24% of the world's burden of disease and more than 60% of the world's HIV/AIDS cases, but has only 3% of the world's health workforce.² There is 1 physician for every 390 individuals in the United States compared with 1 for every 33 000 in Mozambique; 1 nurse

for every 107 individuals in the United States, but only 1 for every 2700 in Tanzania. There are 24 pharmacists in Angola, a country of 12 million people.¹

There can be no meaningful response to HIV/AIDS without sufficient health workers to plan, implement, and sustain the effort. Educating and retaining an adequate number of health workers is ultimately a nation-by-nation challenge. But the severity of the human resource gap and the urgency of the epidemic have focused global attention, and international organizations, donor governments, and private philanthropies are making investments in workforce scale-up strategies through programs such as the World Health Organization's Treat, Train and Retain initiative.³

What role is the United States playing in providing health personnel to help respond to the global HIV/AIDS epidemic? A relatively small number of US health professionals are currently in developing countries treating patients with HIV/AIDS. Some clinicians volunteer with faith-based or secular nongovernmental organizations (NGOs.) A few universities and corporations support health personnel in high prevalence HIV/AIDS countries. The government sends small numbers of physicians through the Centers for Disease Control and Prevention and United States Agency for International Development projects. Peace Corps sponsorship is limited to AIDS education initiatives. The principal US program to address HIV disease globally, the \$15 billion President's Emergency Plan for AIDS Relief (PEPFAR),⁴ has done little to date to send US physicians and nurses abroad.

This modest level of mobilization is in sharp contrast to the clear interest among young Americans in medicine, nursing, and public health in taking on the world's toughest health problems. In 2006, 27.2% of graduating US medical students had worked abroad—double the number of a decade

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earlier.⁵ When Baylor Medical College and Bristol-Myers Squibb launched a “Pediatric AIDS Corps” last year to work in Southern Africa, they were overwhelmed by applications from pediatricians to fill their 50 positions and have had to turn away dozens of qualified candidates (oral communication, July 28, 2006, Mark Kline, MD, Baylor AIDS Corps director).⁶ At George Washington University (my own medical school), incoming medical students select electives in global health by a rate of 2 to 1 over other opportunities in areas such as research and teaching.

Global medical need linked to the readiness of US health professionals to help presents an opportunity both for humanitarian service and for an extraordinary brand of public diplomacy. A commitment by the United States to mobilize health workers for service abroad would provide benefit well beyond the patients treated, the health workers trained, or the medical schools staffed. This commitment would be a highly tangible manifestation of US generosity, a contribution by gifted and trained Americans, a restatement of the US commitment to the global community. Other nations have earned reputations for generosity abroad. The Netherlands provides the most international aid of any nation on a per citizen basis.⁷ The Doctors Without Borders movement (*Medecins Sans Frontieres*) was launched in France. Cuba has sent medical personnel to dozens of countries in the developing world—some 100 000 over the past 4 decades, a huge contribution for a small country (written communication, June 26, 2006, Efen Acosta, MD, Director de la Unidad Central de Cooperacion Medica, Ministry of Health, Havana, Cuba). The potential power of health as public diplomacy was seen in the dispatch of the US Navy hospital ship *Mercy* to Indonesia and Bangladesh in 2005 staffed by physicians and nurses organized by a US NGO, Project HOPE. Subsequent surveys in the respective countries showed 63% and 95% approval ratings for the medical mission, with 53% and 87% of respondents reporting an improvement in their impression of the United States.⁸

Health professional volunteerism is good but not sufficient for the massive challenge of helping to scale up threadbare workforces and as yet nonexistent programs in countries with high HIV prevalence. Responding to the global HIV/AIDS problem substantially differs from previous international responses, such as single contact vaccination campaigns or brief high-intensity surgical clinics. Long-term placements are needed to help build training programs, create pharmacy distribution networks, monitor patients, and maintain treatment—for years. But physicians, nurses, and pharmacists have debts, mortgages, and career commitments that can deter even the most determined. Relocating to the developing world for 2 or more years is not an easy—or even plausible—option for most.

A bold national program similar to one proposed in a recent Institute of Medicine report entitled “Healers Abroad: Americans Responding to the Human Resource Crisis in HIV/AIDS”⁹ is needed to help mobilize the numbers of US health

workers ready to commit to working abroad in the long-term battle against HIV/AIDS and other diseases of poverty. The federal government, both as a source of finance and as the principal expression of the United States abroad, should play a robust leadership role in this campaign. The centerpiece of a US global health initiative should be a dedicated, federally funded corps of health professionals with public health as well as clinical skills working in collaboration with host governments—a conceptual blend of the Peace Corps and the National Health Service Corps. Placements for these individuals should focus on the multiplier effect they would bring in regard to health system development and capacity building. Specific assignments should be carefully chosen with host governments in areas such as teaching, training, system design, and informatics.

Private organizations and individuals stand to play a crucial role in a new US global health initiative. In fact, most US health professionals who currently work in the developing world do so on their own, working for NGOs. Public funding in support of volunteerism would do a great deal to increase the number of US personnel working in epidemic areas. In 2006, the average debt of medical school graduates was \$130 000,¹⁰ a huge barrier to recent graduates considering work abroad. The Baylor Pediatric AIDS Corps pioneered the use of loan repayment incentives offering up to \$40 000 per year in addition to a modest stipend—a package that has drawn hundreds of applications. Loan repayments in return for extended service in health and development would be a powerful barrier reduction strategy to encourage professionals to work abroad as part of a national program. General support also would help because few NGOs can afford to offer much in the way of salaries. In this spirit, a competitive Fulbright-type fellowship program that would provide stipends and career prestige for physicians, nurses, and other health personnel for service in health and development settings would assist many considering international work. Every placement abroad requires a connection, a matchup between the individual health professional and the clinic, training program, laboratory, or ministry office in which he or she will work. An electronic clearinghouse with information on programs, organizations, and placement opportunities for health professionals considering work in developing countries would streamline the system and facilitate health workers finding optimum sites.

Universities, medical schools, religious organizations, and health departments could play a greater role in facilitating the movement of health professionals. “Twinning” is the term used for partnerships between US institutions and counterparts in developing nations, a strategy that has proved effective elsewhere in the world for launching health professionals into international work while simultaneously training host country colleagues in the United States.¹¹ Funding that primes the twinning pump in regard to the developing world would be money well spent.

To ensure maximum impact, both the corps of health professionals and the funding for private sector support programs should be managed as a single program with a clear mission and identity. The US Public Health Service in the US Department of Health and Human Services, which has a long record of deploying clinicians as well as managing scholarship and loan repayment programs, would be the ideal home for the initiative. The Institute of Medicine report, indeed, proposes that these programs be launched together as the US Global Health Service constructed on key principles that would include country responsiveness, interdisciplinary approaches to program delivery, and training for self-sufficiency. Ultimately, each country will have to educate and maintain its own health workforce, but the aid of US health professionals would be welcomed in many developing countries as help in the crisis and as foundational assistance for the future. The Institute of Medicine report⁹ estimated the cost of a start-up US Global Health Service to be approximately \$150 million a year, roughly 3.8% of the \$3.9 billion proposed budget of the President's Global AIDS initiative for 2007—or the cost of 18 hours of the war in Iraq.^{12,13}

The direct assistance to nations that would be beneficiaries of US Global Health Service personnel as well as the program's stimulant effect on private initiatives could be enormous. Over time its alumnae would populate the ranks of US medical and public health leadership bringing with them field-tested perspectives on health, poverty, and global involvement that would influence the health and foreign policies of the United States. In addition to mobilizing thousands of health care personnel to work abroad, the program would symbolize the commitment of the United States to the global treatment of HIV/AIDS and the diseases of poverty. These US health professionals working in countries from which physicians and nurses have immigrated to the United

States would represent a measure of recompense for the enormous benefits that the United States has derived from foreign-trained health workers. The US Global Health Service would be a small program with a big footprint. Like the Peace Corps, it would say something about the United States—a message the world needs to hear.

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