

Health  
Action AIDS

**PHR**

Physicians for  
Human Rights

# **AN ACTION PLAN TO PREVENT BRAIN DRAIN: Building Equitable Health Systems in Africa**

A Report by  
Physicians for Human Rights

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June 2004  
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Design: Visual Communications/[www.vizcom.org](http://www.vizcom.org)  
Cover Photo: Robert Grossman/[www.africaphotos.com](http://www.africaphotos.com)

# ABOUT PHYSICIANS FOR HUMAN RIGHTS

**T**he Boston-based Physicians for Human Rights (PHR) promotes health by protecting human rights. PHR believes that respect for human rights is essential for the health and well-being of all people.

Since 1986, PHR members have worked to stop torture, disappearances, and political killings by governments and opposition groups and to investigate and expose violations, including deaths, injuries, and trauma inflicted on civilians during conflicts; suffering and deprivation, including denial of access to health care, caused by ethnic and racial discrimination; mental and physical anguish inflicted on women by abuse; exploitation of children in labor practices; loss of life or limbs from landmines and other indiscriminate weapons; harsh methods of incarceration in prisons and detention centers; and poor health stemming from vast inequalities in societies. PHR also works to protect health professionals who are victims of violations of human rights and to prevent medical complicity in torture and other abuses.

PHR's Health Action AIDS Campaign, in coordination with Partners In Health (PIH), mobilizes the health professions to support a comprehensive HIV/AIDS strategy and advocates for funds to combat the pandemic, while developing ways for health professionals in the United States to support health providers and activists around the world. The Campaign brings together the best available medical and scientific understanding of AIDS, using that understanding to direct policy choices. Health Action AIDS also researches the connection between human rights and HIV/AIDS. The PHR/PIH partnership takes advantage of PHR's ability to organize health professionals and combines it with PIH's extraordinary knowledge and experience, having led the MDR-Tuberculosis campaign, its leading role in the development of the Harvard University AIDS statement, and its work in developing countries.

Visit [www.phrusa.org](http://www.phrusa.org) or [www.healthactionaids.org](http://www.healthactionaids.org) for more information.



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# ACKNOWLEDGEMENTS

This report was written by Eric A. Friedman, JD, Policy Associate, Physicians for Human Rights (PHR). The following individuals reviewed the report and provided invaluable comments:

Holly Burkhalter, US Policy Director, PHR; Max J. Friedman, MJ; Libby Levison, PhD, MPH, Pharmaceutical consultant; Edie Rubinowitz, MPA, Health Action AIDS Media Coordinator, PHR; Susan E. Vitka, Board member, PHR; Gina Cummings, Director of Constituency Outreach, PHR; Una V. Reid, BScN, MSN, MEd, EdD, Human Resources Development consultant; Leonard Rubenstein, JD, Executive Director, PHR; Barbara Ayotte, Director of Communications, PHR; and Lincoln C. Chen, MD, MPH, Director, Global Equity Center, Harvard Kennedy School of Government. Ms. Rubinowitz and Ms. Ayotte assisted with the executive summary. Dr. Chen contributed the foreword.

For their insights, comments, and perspectives on the section of the report on macroeconomic policies, the author thanks Rick Rowden, MA, Policy Officer, Action Aid USA; Michael Rowson, MSc, Executive Director, Medact, United Kingdom; and Peter S. Heller, PhD, Deputy Director, Fiscal Affairs Department, International Monetary Fund.

Ms. Burkhalter provided considerable guidance to the author with this project. Ms. Rubinowitz gave the author valued support during the final phase of preparing this report. Aaron J. Fischer, Legal Intern, PHR, provided research assistance.

For quite constructive early comments on this project, including suggesting a section on guiding principles, and for inviting the author to an EQUINET/Health Systems Trust meeting on human resources for health in Southern Africa, thanks to Antoinette Ntuli, Director, Healthlink Programme, Health Systems Trust, South Africa.

For generously giving their time and insights during the author's time in Eastern Cape, South Africa, warm thanks to Noluthando Ford-Ngomane, MD, ISDS Facilitator, Ukhahlamba District Municipality, Health Systems Trust; Nigel Hoffman, MD, Superintendent, Rietvlei District Hospital; and F. Gixane, RN, Middle Manager, Mount Aliff Hospital, Eastern Cape Department of Health. Thanks also to Richard Sebastian Wanless, MD, PhD, Senior Medical Director, Secure the

Future, for his immense generosity during the author's time in South Africa.

For additional valuable assistance and support, sincere appreciation and thanks to James Silk, MA, JD, Professor of Law & Executive Director, Orville H. Schell, Jr. Center for International Human Rights, Yale Law School; Gorik Ooms, LL.M., Executive Director, Médecins sans Frontières Belgium; Amy Hagopian, MHA, PhD, Associate Director, Regional and Rural Education, Research and Support Services & Clinical Assistant Professor, Department of Health Services School of Public Health and Community Medicine, University of Washington; Delanyo Dovlo, MBChB, MPH, MWACP, Ghana Health consultant & Joint Learning Initiative's Human Resources Working Group on Africa; James Buchan, MA, PhD, Professor, Faculty of Social Sciences and Health Care, Queen Margaret University College, United Kingdom; Barbara L. Brush, RN, PhD, FAAN, Associate Professor, University of Michigan School of Nursing; Fawzia Rasheed, PhD, Senior Policy Advisor, Department of Strategic Planning and Innovation, HIV/AIDS, Tuberculosis and Malaria Cluster, World Health Organization; Tasmin Din, former Executive Assistant, PHR; Doug Olson, Intern, PHR; Chen Reis, JD, MPH, former Senior Research Associate, PHR; Deborah von Zinkernagel, RN, MS, SM, Program Development Consultant, Pangaea Global AIDS Foundation; Ian Couper, MBChB, MfamMed, Professor of Rural Health, University of the Witwatersrand, South Africa; Tim Martineau, MSc, International Health Research Group, Liverpool School of Tropical Medicine, United Kingdom; Lucy Gilson, MA, PhD, Deputy Director, Centre for Health Policy, University of the Witwatersrand, South Africa; and Janet Feldman, Director, Kenya AIDS Intervention Prevention Project Group/International.

Ms. Ayotte prepared the report for publication.

The author also thanks all those who, while not named above, also shared their time, thoughts, and materials during the course of researching and writing this report.

Physicians for Human Rights is grateful to The Bill & Melinda Gates Foundation, Mertz- Gilmore Foundation, and John M. Lloyd Foundation for their support of this research.

# FOREWORD

In this first decade of the 21<sup>st</sup> century, we in the world community face a “double crisis.” The first is the persistence, indeed worsening, of sickness, impoverishment, and economic backwardness in many of the world’s poorest communities. Superimposed upon this mass deprivation is a historically unprecedented HIV/AIDS epidemic that is now beginning to devastate these very same communities. Human survival in a dozen or more countries of sub-Saharan Africa is in free fall, as life expectancy plunges below 40 years — half the longevity of privileged populations. The global pandemic now threatens to sweep across much of Asia, the Caribbean, Eastern Europe and other continents.

The second crisis is our paralysis to respond effectively. Our incapacity is not due to the lack of knowledge, inadequate technologies, or even scarce resources. The world has more than adequate abundance of these assets to tackle these problems, as demonstrated by successful prevention and treatment HIV/AIDS programs in high-income countries. The hardest hit societies, however, lack the social and physical infrastructure to be able to mount an effective response. The human infrastructure and operating systems in these societies are simply too feeble to grapple with the challenges. Put simply, we lack the political imagination, the collective will, and the global solidarity to act effectively in a highly inequitable world.

This paper by Physicians for Human Rights addresses the dual crises of violation of the human right to survival worsening in the face of severe shortages of human resources to meet our ethical obligations. This paper is exhaustively researched, adopts a comprehensive approach, and its release is very timely. As the report underscores, now is the time to act, for further delays will exact a huge human cost in millions of preventable deaths. The report’s analysis penetrates to the root causes of the problem and it offers a set of strategies that must be embraced to address the crises. Effective solutions are available, not surprisingly. But these depend upon respect for basic human rights and the mutual meeting of our obligations — adapted and adjusted to new contexts.

The health worker in the workforce is an old problem with new dimensions. People produce their own health, but their effectiveness depends upon health workers and support systems. Inadequately recognized is that irrespec-

tive of money and drugs, health achievements depend upon frontline health workers who connect people and communities to technologies and services. It is the worker who glues together all inputs, such as drugs, vaccines, information, and technologies. Pouring money and drugs at a problem is wasteful if workers are not available, motivated, skilled, and supported. Yet, the health worker — of all categories and at all levels — is in a precarious condition, for several reasons.

First, the HIV/AIDS epidemic poses a “triple threat” to the workforce — increasing the work burden, sickening and killing health workers, and stigmatizing those who care for patients. Heavily impacted societies are confronting a “catch-22” situation where the epidemic imposes enormous additional health care burdens while demanding more numerous and skilled health workers to combat the infectious disease. The only way to break the spiral of death is to capacitate and empower the workforce so that the epidemic can be brought under control.

Second, health care systems have been profoundly neglected, suffering from more than two decades of under-investment. Professionally trained health workers are critical societal assets that require many years to yield returns from sustained educational investments. Yet, structural adjustment policies and health sector reform launched in the 1980s capped salaries of workers, froze hiring of new workers, and paralyzed the systems’ capacity to offer incentives to motivate workers. Investments in education dried up, and learning systems decayed so that the pipeline essentially ran dry. Those who graduated and entered the workforce became easily demoralized, as demonstrated by worker protests and strikes. Many workers shifted out of the public into the private sector, and many left medical work altogether. A major re-investment program will be required to make up for lost time and opportunity.

Third, beginning in the latter half of the 1990s, the international mobility of doctors, nurses, and other highly skilled professionals accelerated. A long-standing and well-recognized problem is intra-national imbalances of workers, especially rural-to-urban movement. Less visible but also important are regional flows of workers among neighboring countries. The recent acceleration of South-to-North migration of doctors and nurses from the poorest to the richest countries has gen-

erated great controversy. Well-documented are “push” factors like low pay, negative work environment, and lack of opportunities for career and family in source or sending countries. “Pull” factors in destination or receiving countries are fueled by aging population, chronic disease care, and labor-demanding technologies and consumer preferences.

This report concludes that the situation is not at all hopeless. There are solutions, but their attainment will require political will and political commitment. Action must be based on the mutual responsibilities in both the

South and North. The report admirably sets out the evidence, organizes the risks and approaches, and commends a human rights approach to human resources that recognizes both the right of movement of all persons and the right to health among people and communities served by migrants.

The stakes are high. History will judge us for how well we as a global community respond to the “double crisis” that will undoubtedly shape the contours of global health in this our 21<sup>st</sup> century.

Lincoln C. Chen  
Global Equity Initiative  
Harvard University

# I. EXECUTIVE SUMMARY

The nations of the world are setting ambitious health and development goals, including the World Health Organization (WHO) target of providing AIDS treatment to 3 million people by 2005 and health-related UN Millennium Development Goals. Unless greater attention by donors and governments is given to developing human resources, these goals almost certainly will not be met.

Many of the countries in sub-Saharan Africa, the region that will be the focus of this report, are experiencing severe shortages of skilled health care workers. There are multiple causes, the significance of which varies by country, but one of the most important factors is brain drain. Brain drain is defined in this report as the exodus of health care workers from developing nations to the wealthier countries of the North. Brain drain is largely a symptom of other health system deficits. Many health professionals who have the opportunity to leave are rejecting these substandard, second-class health systems that their countries and the international community have been too slow to upgrade.

The causes of brain drain are complex and interrelated, involving social, political, and economic factors. The necessary responses will therefore be varied and cover an array of areas. Drawing on growing interest and scholarship,<sup>1</sup> Physicians for Human Rights (PHR) proposes this plan of action for addressing brain drain and the unequal distribution of health personnel within countries, recommending actions by high-income countries, African governments, WHO, international financial institutions, private businesses, and others.

PHR seeks to mobilize governments and pertinent organizations to direct their resources and energies to a specific series of actions needed to build equitable health systems. PHR highlights and hopes to gain increased recognition for broad principles about what this goal requires. 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. Any serious response to brain drain, a response that is intended to be more than a temporary, partial fix, will entail significant new investments in the health sector, directed, in large part, to health systems, not specific disease programs. Much more than money is needed to improve health systems – policies must be reformed and certain priorities newly emphasized. Within the health

sector, systemic changes are needed, including in the priority given to equity, management, and human resources. Systemic changes must extend beyond the health sector to economic policies that provide a framework for government spending that recognizes the importance of ensuring the health and human rights of citizens.

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. This reality, while always true, takes on special significance in light of the AIDS pandemic. Governments and international development and financial organizations must factor this understanding into their policies and priorities.

Brain drain is part of a series of internal and international migrations of health personnel to areas deemed more favorable, including rural to urban areas and less developed to more developed countries within the developing world. Brain drain can exacerbate the shortage in rural areas, as rural health personnel move to urban areas to fill vacancies created when urban health professionals emigrate.<sup>2</sup>

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

This report focuses on responses that involve or are closely related to the health sector. Those dealing with broad issues such as development and governance are generally beyond PHR's scope here, though they must also be addressed. Some of the responses are narrow solutions to brain drain, and in many cases can be implemented relatively quickly. Others implicate broad issues of health system development and could take many years to fully implement, though the work can and must begin right away. Significantly reducing brain drain requires deep and sustained commitment.

## Scope and impact of brain drain and shortage of skilled health personnel

Health systems cannot operate without the people who run them. As WHO states, health personnel are the people “who make health care happen.”<sup>3</sup> Without adequate numbers of trained health personnel, both the quality and quantity of health services that a health system can deliver are reduced, limiting the number of people who receive care, and diminishing the quality of care for those who are able to receive it.

About 38 of the approximately 47 countries in sub-Saharan Africa do not meet the WHO recommended minimum 20 physicians per 100,000 population; about 13 sub-Saharan countries have five or fewer physicians per 100,000 population.<sup>4</sup> WHO recommends at least 100 nurses per 100,000 population for the least developed countries; about 17 sub-Saharan countries have 50 or fewer.<sup>5</sup> Shortages in health management posts can hamper the ability of health ministries to develop and implement strategies necessary to improve health services. Donor preferences for vertical, single-disease programs can contribute to the shortage of personnel with the management skills required to run a health system by focusing training on clinical skills instead.

Even health professionals that are practicing are often unable to work full-time, as they must care for family members with HIV/AIDS, attend funerals, and address their own health needs. Further, many public sector health professionals supplement their income with private sector work.<sup>6</sup>

Health professional shortages are the most severe, by far, in rural and other poor areas. For example, in the early 1990s in Southern Africa, the richest districts had about twice the number of nurses, more than six times the number of doctors, and 11 times the number of pharmacists as the poorest districts.<sup>7</sup> The primary causes for the rural/urban inequities are the worse health infrastructure and less favorable living conditions in rural areas.

Data from the American Medical Association (AMA) reveal that 5,334 non-federal physicians trained in African medical schools were licensed to practice medicine in the United States in 2002.<sup>8</sup> Other figures suggest that there are significantly more African physicians in the United States, though perhaps not licensed to practice medicine. For example, the Ghana Medical Service estimates that 1,200 Ghanaian physicians are in the United States,<sup>9</sup> whereas data from the AMA indicates 478 physicians from Ghanaian medical schools are licensed to practice in the United States.<sup>10</sup>

Brain drain is not limited to doctors. Nurses have been migrating to practice in high-income countries like

the United Kingdom and the United States. Figures in both those countries indicate an increased influx of foreign-trained nurses, although the latest data available from the United States does not indicate that the numbers from Africa, in particular, are increasing. The number of African nurses migrating to the United Kingdom, however, has accelerated greatly in recent years. Pharmacists are also emigrating from African countries in sizeable numbers.

Shortages of health personnel limit the number of people able to receive care, and diminish the quality of care for those who are able to receive it. Some health facilities, especially in rural areas, close because they have no one to run them. Often, facilities are staffed with unqualified personnel. Even patients who see qualified health workers face risks generated by the shortage. Health professionals who have many patients will have less time to spend with each, limiting their ability to fully probe a patient's condition, which may lead to a misdiagnosis. Other effects of the shortages include loss of institutional memory, inadequate supervision, and long waits at health facilities.

Health personnel shortages can prevent a country from scaling up interventions to achieve certain health goals, including AIDS treatment targets and the Millennium Development Goals. Health personnel shortages are limiting many countries' ability to meet tuberculosis targets<sup>11</sup> and immunization coverage targets,<sup>12</sup> and are directly related to high infant and child mortality.<sup>13</sup> Vertical AIDS programs may lead to health personnel being diverted from performing other health services, thus undermining existing health systems.

Shortages of health personnel result in more shortages. Increased workload may contribute to health professionals' decisions to leave, and faculty shortages at health training institutions limit their capacity to train new health professionals.

Brain drain takes a huge financial toll on African nations. They lose their investments in the expensive education of health professionals, and the lost worker productivity associated with worsened health contributes to further economic loss. The losses of brain drain are offset slightly by remittances that migrated health professionals send to family members back home and by the skill gains of emigrated health professionals who return to Africa temporarily or permanently.

## GUIDING PRINCIPLES

In order to tackle the problem of brain drain, all actors – from governments to NGOs and training institutions – must launch systematic, sustained efforts. These efforts should be based on a set of ethical and pragmatic directives, outlined below.

- The primary response to brain drain must be to redress second-class health systems that reflect widespread violations of the right to health and other rights.
- The response must include significantly increased funding to the health sector from domestic and international sources, including debt relief.
- The response to brain drain must incorporate the broader effort of addressing the unequal distribution of health professionals within countries, including particularly severe shortages in rural areas.
- Low-income countries that are the source of health professionals who migrate to wealthy nations should be reimbursed by those nations.
- Solutions to brain drain must be locally determined, with participation from representatives of poor and rural communities, health care workers, and civil society.
- Foreign assistance must be structured to promote and enable sound policies on human resources for health.
- The rights of health professionals and their desire to seek a better life must be respected given the constraints and demands of a global public health crisis.
- Countries must adhere to ethical recruitment principles, including not recruiting from developing countries absent an agreement with them.
- High-income countries must address their own inadequate production and retention of health professionals.
- Measures to promote macroeconomic policy aims must be consistent with human rights.
- Along with increasing retention of skilled health workers, more health professionals must be recruited and trained.
- Capacity-building for health sector human resources management should be a priority.
- Members of the African health professional diaspora can make an important contribution to health care in Africa.

## **PLAN OF ACTION: PREVENTING BRAIN DRAIN**

Much has been written on the basic parameters of what needs to be done to curb brain drain. Steps are needed to address both “push” and “pull” factors. Push factors encourage health professionals to leave their countries, and include low salaries and benefits, unsafe working conditions, inadequate human resources for health management policies, degraded health care infrastructure, and insufficient professional development opportunities.

Pull factors draw health professionals to other countries, and include the shortages of health professionals in and their recruitment to high-income countries.

Human resource planning and management capacity must be enhanced. More health workers, both professionals and other cadres of personnel, must be trained, and the training institutions that are losing staff to brain drain must be supported. The needs of the areas that suffer most from the crisis, primarily rural areas, must receive special attention. And economic policies that result in limits on the number and payment of health workers must be addressed.

Ideally, factors beyond the purview of health systems and the scope of this paper, such as crime and poor governance, would also be addressed as part of a comprehensive response to brain drain. They, too, help drive away health professionals.

PHR proposes the following plan of action to help stop the outflow of health professionals from Africa and more generally nourish the human resources for health in Africa.

## **PUSH FACTORS**

### **Salaries and benefits**

Low salaries are often an important factor in many professionals’ decision to migrate.

### **Recommendations**

- Donors should help African countries increase salaries and benefits, within a context of fair salary structures. Health ministries and health professional associations should work with civil service commissions and finance ministries to determine how to increase salary and benefits for health professionals.
- African countries should consider applying to the Global Fund to Fight AIDS, Tuberculosis and Malaria for costs of increased salary and benefits.
- The United States should remove legislative and administrative obstacles on providing payment to foreign government employees, including health workers. Other donors should take comparable steps.

### **Health worker safety and well-being: fear of occupational infection**

Working in health facilities where half or more of patients may have HIV/AIDS, and other infectious diseases are rife, many health workers fear contracting dangerous infections while at work. To address their safety, a variety of measures must be taken on a large scale.

## Recommendations

- Countries in Africa and elsewhere should develop policies that ensure health facilities have adequate levels of essential supplies for infection prevention and control. Strategies may include placing such items on an essential medicines and supplies list.
- The United States and other donors should help ensure that African and other AIDS-burdened countries have funds to purchase gloves and other supplies needed for infection prevention and control.
- The United States and other donors should offer logistical support to low-income countries in Africa and elsewhere – including in the areas of product selection, forecasting, procurement, inventory management, transport and distribution, and supervision – to ensure adequate levels of supplies are always available.
- Low-income countries should conduct infection control assessments to determine the precise gaps in infection prevention and control. Infection prevention and control policies should be developed or revised accordingly. The United States, WHO, and other countries or organizations should provide technical assistance.
- All countries should incorporate infection prevention and control into pre-service curricula at health training institutions and provide in-service training on infection prevention and control as needed.
- AIDS-burdened countries in Africa and elsewhere should consider applying to the Global Fund for AIDS, Tuberculosis and Malaria for grants to assist in purchasing supplies for and providing training on infection prevention and control procedures.
- Donors should incorporate universal precautions into all health programs they or their contractors operate.
- HIV-positive staff should receive hepatitis B vaccinations, and isoniazid preventive therapy and cotrimoxazole preventive therapy to protect against tuberculosis and other opportunistic infections. Post-exposure prophylaxis should be available to all health workers exposed to HIV in the occupational setting.
- African countries, as well as both high- and low-income countries elsewhere, should introduce flexible working schemes, long-term sick leave, early retirement, and other employment packages to meet the needs of their health personnel.
- Countries that establish AIDS treatment programs should conduct outreach to health workers to ensure that they are aware of and able to access these programs.

- Establish and progress towards the goal of using syringes and other medical sharps that have safety features to protect health workers.

## Health worker safety and well-being: occupational stress

Many African health care workers suffer from occupational stress. This is an expected reaction to the death and disease they face, fear of occupational infection, new tasks such as HIV counseling for which they might not be trained, and immense workloads. Governments, with the help of donors if necessary, should offer psychological support to health workers. Psychological support should be part of a holistic plan to support health professionals.

## Physical health infrastructure and health systems management

Health professionals are trained to heal people, but often find that lack of medicines, equipment, support, and other necessities impedes their ability to effectively care for patients, a terribly demoralizing situation. Health professionals need the tools to be able to do their job.

## Recommendations

- The United States and other donors should assist African countries in rehabilitating health facilities. All health facilities should be ensured phone service, electricity, and a constant supply of safe water. Upgrades should also begin to make Internet service available. Technologies such as solar panels, electric generators, and satellite-based phones make it possible to provide these utilities to even remote health facilities quickly and at relatively low cost.
- The United States and other donors should assist African countries in ensuring that health facilities have the necessary drugs, supplies, and equipment.
- The United States and other donors should also provide funds and technical assistance to help African countries: improve drug distribution systems, through training and possible implementation of the stock management system; purchase and maintain ambulances and communications equipment needed to strengthen referral systems, and; invest in computer systems, programs, and training to enhance health information management.
- The United States and other donors should assist African countries in providing quality and consistent supervision. This support should include technical assistance and funds to train supervisors and to purchase and maintain vehicles.

## Pre-service training

Pre-service training that African health professionals receive often fails to adequately prepare them for the conditions in which they will actually practice. The training, particularly for physicians, focuses excessively on practice in tertiary facilities and on the use of advanced technology that will rarely be available in the settings in which they end up practicing. The result is frustration at not being able to practice the type of medicine for which they were trained.

## Recommendations

- African health training institutions should adjust their curricula to prepare graduates for the conditions in which most will practice in Africa, including an emphasis on primary health care and common health problems.
- African and other developing countries should include AIDS care and treatment, including anti-retroviral therapy, in the curricula of their health-training institutions.
- Teaching methods in African health-training institutions should be re-oriented to include critical thinking and problem-solving.

## Research and graduate training opportunities

Inadequate research possibilities and lack of opportunity to keep up-to-date with information in their field can reduce the morale of African health professionals. Meanwhile, many African physicians attend graduate medical education programs abroad, where they become attracted to medical practice conditions not available in their own countries. All relevant actors should encourage greater opportunities for African health professionals to advance their knowledge while in their home countries.

## Recommendations

- African health ministries should enhance the quality of continuing education they provide health professionals.
- The United States and other donor governments should assist African countries in providing Internet connectivity to all health facilities. Computer and related corporations should assist in providing equipment and services at no or reduced cost.
- The United States and other donor governments should assist African libraries, including medical libraries, obtain up-to-date materials and maintain up-to-date collections. Health training institutions in the United States and other high-income countries should also assist African health sciences libraries.

- Medical and other health-related journals should be made available for free or at a nominal cost to health professionals in Africa and other parts of the developing world.
- African countries should consider initiating or improving upon existing medical graduate training programs. The United States and other donors should provide financial and technical support, as should graduate training programs in high-income countries.
- Nationwide or facility-based committees should be established in African countries to review the quality of graduate training, including residency programs and specialty training, particularly to address concerns of students and resident physicians. Students and resident physicians should be on these committees.
- The United States and other donors should consider funding research opportunities in African countries for African health professionals.

## Medical school culture

Some medical schools in Africa have a culture that encourages graduates to practice abroad. Where a culture of medical migration exists, African countries should seek to persuade faculty to encourage students to remain in country. When hiring new faculty, those who are likely to encourage students to practice in the country should be favored. Particularly where such a culture of medical migration exists, health-training institutions should develop strategies to promote the attractions of remaining in country.

## PULL FACTORS

In addition to the factors that are pushing African health professionals out of Africa, conditions in and practices of high-income countries encourage them and contribute to their ability to work abroad.

## Shortage of health professionals in developed countries

High-income countries are increasingly looking abroad to meet their health personnel needs, due to significant shortages of health professionals in these countries. This is faster and less expensive than nurturing their own workforces.

## Recommendations

- The United States and other wealthy nations should develop strategies to address domestic health professional shortages that minimize their reliance on foreign health professionals. These countries should share their experiences using these strategies.

- Wealthy nations should increase efforts to place domestically trained health professionals in underserved areas. In the United States, efforts could include expanding the National Health Service Corps. Strategies could also include reforms in health training institutions, such as increased training in and exposure to rural health and favorable loan repayment programs for those who work in underserved areas.
- The United States and other wealthy nations should increase retention of nurses and other health professionals for whom shortages exist by ensuring decent wages and safe working conditions, and by implementing flexible working strategies. Wealthy countries should also increase graduates from nursing training institutions, as well as other health-training institutions as necessary.

### **Recruitment of health professionals from Africa**

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.<sup>14</sup> PHR appeals to entities involved in recruitment to recognize their role in brain drain and participate in finding and implementing solutions.

#### **Recommendations**

- Developing countries and organizations in developing countries should explore possibilities of limiting recruitment from abroad.
- The United States and other recruiting countries should end active recruitment of health professionals from developing countries, absent agreement with those countries. This can be accomplished through legislation or other government mandates, or where that is not possible, through codes of practice.
- An international strategy on ethical international recruitment of health professionals, grounded in human rights principles, must be developed and adopted at the national level.
- High-income countries should review their immigration policies to determine whether they contribute to brain drain.
- The effects of offering high-income country medical or nursing licensing exams for foreign health professionals in or near their home countries should be monitored for its impact on migration.

### **Reimbursement**

Wealthy nations should reimburse developing countries for the training costs and health impact of health pro-

fessionals who migrate from developing to developed countries.

## **HUMAN RESOURCES PLANNING AND MANAGEMENT**

### **Human resources planning**

Changes in human resources policies must be built on sound information, yet in much of Africa, that information is lacking.

#### **Recommendations**

- African countries should undertake comprehensive and detailed surveys of their health infrastructure to better understand the infrastructure needs and how to best meet those needs. Donors should provide technical and financial assistance as required.
- African countries should develop national maps and databases of their health workers. The maps and databases should be regularly updated. Donors should provide technical and financial assistance as required.
- Low-income countries should study what health workers require to keep them in the country and public sector, and what incentives or policies would encourage them to work in rural areas.
- WHO efforts to develop an international human resources database should receive the full support of the international community.
- African countries should develop or, if necessary, revise national plans on human resources for health. The plans should be designed to produce and retain the numbers of health personnel, in the appropriate skills-mix, required to meet the health needs of the population, including anti-retroviral therapy and scale-up of other health interventions. Special care should be taken to ensure that the plans will meet the health needs of rural and other underserved populations.
- WHO should develop and disseminate good practices in health sector human resources planning and management. Wealthy WHO member states should provide WHO the necessary financial support to carry out this and other WHO activities that are part of the organization's promotion of human resources and health systems development.

### **Human resources management**

Good human resources management has the potential to significantly increase staff morale by establishing well-defined career paths and job descriptions, supporting supervisors, and lessening workloads through staff reallocation. Strong human resource management will also be needed to effectively implement changing health sector human resource policies.

## Recommendations

- African countries should strengthen their health ministries' capacity for human resources planning and management. Donors should provide technical and financial assistance as required, including loaning health ministries personnel if necessary.
- African health training institutions should incorporate human resources for health into their pre-service training curricula.
- African health ministries should assess and revise their human resource policies.
- African countries should avoid committing themselves to liberalizing trade in health services, in particular the services of doctors, nurses, midwives, and other health personnel, under the General Agreement on Trade in Services (GATS). The World Trade Organization (WTO) Secretariat should educate trade officials from developing countries on the potentially negative consequences of committing to the GATS regime for these services.
- Where possible, health facilities in Africa should employ managers trained in human resource management.
- African countries should ensure that they have efficient recruitment and placement procedures for posts in the public health system.
- Donors should maximize coordination so as to minimize unnecessary work for health system managers.

## SOURCES FOR MORE HEALTH CARE WORKERS

African countries, NGOs, donors, and health institutions should collaborate in bringing more people into the field of health care. This can be accomplished through increasing support for African health training institutions, increasing responsibilities of nurses, increasing the use of mid-level cadres and community health workers, and facilitating the use of foreign health professionals.

### Supporting health training institutions

#### Recommendations

- The United States and other donors should provide funding for salary support and other incentives to educators at medical, nursing, public health, pharmacy, and other health training institutions to promote recruitment and retention of trainers at these institutions.
- Health training institutions in the United States and other high-income countries should develop partnerships with health training institutions in Africa and

other regions of the developing world that are facing faculty shortages and offer trainers (professors) on a per semester or annual basis. Governments of high-income countries should, as needed, facilitate these partnerships or separately support trainers through their own programs.

- The United States and other donors, in collaboration with American and other high-income country health training institutions, should support distance learning, which typically involves telecommunications technology, in health training institutions in African countries and other parts of the developing world.
- The United States and other donors should assist African countries in increasing investment in their health training institutions to enable them to increase the numbers of health professionals they graduate annually.
- Countries in Africa and elsewhere that have few or no medical schools should evaluate whether they can meet their human resources for health needs with their current health training institutions and through foreign institutions at which their nationals train. Where they cannot, the United States and other donors should assist in funding new training institutions.
- African countries, with the support of the United States and other donors, should enhance investment in secondary education, especially science and math programs, to increase the pool of students prepared to enter health training institutions.
- A portion of donor funding for in-service training should be shifted to pre-service training, which is more sustainable, inclusive, and cost-effective than in-service training, and less disruptive as well.
- African countries should consider reducing the length of professional training programs to speed the production of health personnel. This should be done only if it can be accomplished in a manner that will ensure that graduates still have the skills and experiences they require to be competent, well-trained health professionals.
- African countries should reach out to retired and inactive health professionals.

### Increasing roles of nurses, mid-level cadres, and community health workers

#### Recommendations

- African countries should increase the responsibilities and numbers of mid-level health cadres consistent with these workers' training and ability, the country's

public health needs, and the number of physicians and registered nurses in the country.

- African countries should promote advanced practice roles for nurses, including the ability to prescribe and dispense medication. The increased responsibility should occur in concert with increased salary and benefits, training, and supervision to enable nurses to meet these new responsibilities.
- Low-income countries facing health worker shortages should explore the possibility of training community health workers to carry out specific tasks, including but not limited to supporting anti-retroviral therapy.

## Foreign health professionals

### Recommendations

- Through programs sponsored by high-income country governments, partnership programs with health institutions in high-income countries, and independent volunteer programs, high-income countries should develop strategies to send their health professionals to low-income countries, in Africa and if needed elsewhere. These programs should be designed to build local capacity and, where appropriate, meet critical clinical service needs in low-income countries.
- African countries that could benefit from the services of foreign health workers should minimize immigration restrictions that hinder their ability to enter and work in those countries.

## INCREASING NUMBER OF RURAL HEALTH WORKERS

Given the severity of the shortage of trained health personnel in rural areas, increasing their numbers must be a priority. Along with encouraging rural students to enter professional health training and providing extra incentives to professionals working in rural areas, foreign health professionals will sometimes be necessary to help fill the gap.

### Recommendations

- African countries, with assistance if necessary from the United States and other donors, should provide extra pay to health workers who take posts in rural or other underserved areas. Health professionals working in especially remote or otherwise unpopular facilities should be eligible for extra incentives.
- African countries should consider policies, such as a community service requirement, that will encourage health professionals to practice in rural and other underserved areas.

- Health training institutions in Africa should initiate programs, which may include courses, speakers, field trips, and rural health tracks, to encourage students to practice in rural and other underserved areas.
- Health training institutions in African countries should make special efforts to recruit students from rural and other underserved areas.
- The United States and other donors should consider funding scholarship programs for students from rural and other underserved areas and less privileged backgrounds.
- African countries and donors should focus resources on physical infrastructure and other forms of health system development in rural and other underserved areas.
- African countries should consider hiring staff expressly for rural and other underserved areas.

## AFRICAN HEALTH PROFESSIONAL DIASPORA

Brain drain has resulted in tens of thousands of doctors, nurses, and other health professionals practicing abroad. Many have an interest in using their professional skills to assist their countries of origin. They must have the information and support to enable them to do so.

### Recommendations

- Immigration reforms should be enacted to promote the temporary or permanent return of members of the African health professional diaspora. African countries experiencing the loss of health professionals should permit dual citizenship. The United States should enact special provisions in its immigration law to permit health professionals from countries suffering from brain drain to return to the health sector in their native countries without having the time spent away from the United States prejudice them in the naturalization process. Other high-income countries should take similar measures.
- African countries should reach out to health professionals who have migrated.
- Working through the International Organization of Migration (IOM) and others, African and other countries suffering from the emigration of health professionals should maintain a database of job openings that could be filled by members of the health professional diaspora, as well as a database of diaspora health professionals interested in working in Africa. The IOM and networks of health professionals from African countries living abroad should help publicize these job openings.

- The United States and other high-income countries, as well as professional associations in these countries, should support the IOM and other organizations and initiatives that facilitate visits to Africa by members of the African health professional diaspora and that promote knowledge transfer through alternate means, such as the Internet and other technologies.
- African countries, with assistance from the United States and other donors as needed, should establish top-quality “centers of excellence” in African countries, particularly in rural or other underserved areas, to encourage diaspora health professionals to return.
- Health training institutions in countries experiencing brain drain should maintain a database of alumni, and encourage alumni to contribute their time or financial or material resources to the training institution or other health services in the country.
- The IMF, ministries of finance, and their partners should ensure that macroeconomic constraints do not limit the effective and productive spending of developing countries on health, education, and related sectors. The changed policies should be publicized among all stakeholders, including finance, health, education, and other national ministries.
- WHO and the World Bank should collaborate to educate finance ministries on the economic benefits of investing in health. Health ministries should also receive this information.
- African countries and any other developing countries with formal or informal freezes on hiring or salaries and benefits of health personnel should end those freezes.

## MACROECONOMIC POLICIES

Policies driven by macroeconomic concerns are interfering with the ability of many African and other countries to increase their health sector spending, including urgently needed funds for HIV/AIDS and human resources. The policies include ceilings on countries’ overall spending, resulting in caps on health sector spending, and restrictions on the civil service budget, which may lead to freezes in health worker hiring and salaries. The ceilings may limit the ability of countries to accept large amounts of financial assistance, especially unexpected assistance. The overall budget ceilings are aimed at ensuring macroeconomic stability, including through low budget deficits, low inflation, and stable exchange rates.

### Recommendations

- The International Monetary Fund (IMF), World Bank, and other donors must not withhold loans or grants, suspend or cancel programs, or otherwise penalize countries that break overall spending ceilings because of increased spending in health, education, and other sectors and activities needed to promote human development, including to enhance salary and benefits to health staff or to hire new health personnel. The IMF and World Bank should immediately issue joint or separate statements announcing this policy. These statements should reiterate their support for additional spending in these sectors, including on human resources. To that end, they should encourage flexibility in budget ceilings in these sectors, as well as a moratorium on any restrictions on hiring, salary and benefits in these sectors. Staff of international financial institutions should actively share the statements and policy with key government officials, including in finance ministries.
- The IMF, World Bank, and finance ministries should publicize the precise nature of existing economic restraints that may limit substantially higher country spending on health and other social sectors, and create mechanisms for on-going transparency of macroeconomic policies and how they impact the health and education sectors. Such mechanisms should welcome NGO input. The Poverty Reduction Strategy Paper process, a form of coordination between low-income country governments and development partners that includes NGO participation, is one possible forum.
- The US Congress should hold hearings and/or request a report from the General Accounting Office to explore the nature and extent of economic policies or practices that discourage countries from increasing spending on health and other social sectors, as well as the role of the IMF and other international financial institutions in promoting these policies.
- The US Congress should require that the Treasury Secretary direct the US Executive Director at each international financial institution, including the IMF, to advocate for changes in the policies of international financial institutions so that macroeconomic concerns no longer limit spending on health and other social sectors, whether domestic spending or international assistance. Other G8 countries should take similar actions.
- Donors should provide long-term commitments of foreign assistance for health systems to ensure a sustained and predictable aid flow.

## CONCLUSION

There are still important details to learn about brain drain and the health sector human resource crisis in Africa. What are the most important causes of brain drain in Namibia or Swaziland? How high does remuneration need to be to help recruit and retain health professionals, and what is the best form of that remuneration? Will South Africa's certificate of need promote more equal access to health services, or will it speed brain drain of angry doctors out of South Africa? How significant a role will community health workers be able to play?

But much is clear. Brain drain is happening, and for nurses, the backbone of health care in Africa, it is accelerating. Distribution of health personnel within African countries – and to a lesser extent, high-income countries as well – is highly inequitable, with rural areas in particular suffering from a huge deficit in services. The effects of this crisis are already being felt throughout Africa, whether for the patient who travels to a rural clinic only to find no skilled health workers to attend to her, or for the hospital in Eastern Cape, South Africa, that is unable

to provide more than minimal AIDS treatment services because it has too few doctors. 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.

Further, even if some important details need to be subjected to further examination, the basic elements of building human resources for health are now well-known. They include increased salaries and investment in physical health infrastructure and infection control, an end to ceilings on health sector spending and freezes on hiring and payment for health professionals, and efforts by high-income countries to meet their health needs through domestically trained health workers.

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 the one hand, and poor people and poor countries on the other, then Africa and the world will overcome this deepening disaster. Enough is known about the problems to demand a solution. Enough is known about solutions to demand action.

## NOTES

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<sup>1</sup> See, e.g., Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 22. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>; Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>; USAID, Bureau for Africa, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003); USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 5. Available at: <http://www.aed.org/publications/HealthSector.pdf>; Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46; William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 4. Available at <http://www.hst.org.za/conf03/presentations/L0080.ppt>.

<sup>2</sup> See "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 130.

<sup>3</sup> World Health Organization, *Human Resources for Health*, <http://www.who.int/hrh/en/>. Accessed March 5, 2004. See also World Health Organization, *Human resources for health: developing policy options for change: Discussion paper, Draft* (Nov. 2002), at 8. Available at: [http://www.who.int/hrh/documents/en/Developing\\_policy\\_options.pdf](http://www.who.int/hrh/documents/en/Developing_policy_options.pdf) ("The quality of health services, their effectiveness, efficiency, accessibility and viability depend in the final analysis on the performance of those who deliver the services").

<sup>4</sup> United Nations Development Programme, *Human Development Report 2003* (2003), at 254-257. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html) (38 countries); World Bank, *The World Bank in Africa*, <http://www.worldbank.org/afr/>. Accessed June 12, 2004. (47 countries); Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 6. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>; United Nations Development Programme, *Human Development Report 2003* (2003), at 254-257. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html); *Malawi Poverty Reduction Strategy Paper*, (April 2002) Population and Health, at 58-59. Available at: <http://www.imf.org/external/np/prsp/2002/mwi/01/043002.pdf>.

<sup>5</sup> Ndioro Ndiaye, *Statement by the Deputy Director General, International Organization for Migration*, presentation at 52<sup>nd</sup> Session of the WHO Committee Meeting for Africa, Harare, Zambia, Oct. 8-12, 2002. Available at: [http://www.iom.int/en/archive/DDG\\_WHO\\_081002\\_eng.shtml](http://www.iom.int/en/archive/DDG_WHO_081002_eng.shtml) (target of one nurse per 1,000 population). William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 4. Available at <http://www.hst.org.za/conf03/presentations/L0080.ppt> (17 countries).

<sup>6</sup> See id21, *Communicating Development Research, Public sector doctors with second jobs* (March 2003), Available at: <http://www.id21.org/health/InsightsHealth3art2.html>.

<sup>7</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 8. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.

<sup>8</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 9, table 2.

<sup>9</sup> DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 24. Available at: [http://www.health-systemsrc.org/publications/reports/int\\_rec/int-rec-main.pdf](http://www.health-systemsrc.org/publications/reports/int_rec/int-rec-main.pdf).

<sup>10</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 9, table 2.

<sup>11</sup> World Health Organization press release, *TB workforce crisis a major obstacle to treatment success* (Oct. 10, 2003). Available at: <http://www.who.int/mediacentre/releases/2003/pr74/en/>.

<sup>12</sup> Phyllida Brown, "The health service brain drain — what are the options for change?" *Immunization Focus* (Oct. 2003).

Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).

<sup>13</sup> See Lincoln Chen, *Harnessing the Power of Human Resources for Achieving the MDGs*, presented at the High Level Forum on the Health Millennium Development Goals, co-sponsored by the World Health Organization and World Bank, Geneva, January 9, 2004, at 3. Available at: [http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC\\_Geneva\\_Jan\\_9\\_2004.pdf](http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC_Geneva_Jan_9_2004.pdf).

<sup>14</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 9, 55. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.



## II. INTRODUCTION

Global organizations and individual countries are setting ambitious health and development goals. The World Health Organization (WHO) has set the target of getting 3 million people living with HIV/AIDS in developing countries on anti-retroviral medication by the end of 2005, an initiative dubbed “3 by 5.” This would represent an almost ten-fold increase over the number of people in the developing world receiving AIDS treatment in late 2003.<sup>15</sup> The United States has itself committed to treating 2 million people with HIV/AIDS.<sup>16</sup> The United Nations (UN) has established Millennium Development Goals that include reversing the spread of AIDS, tuberculosis, and malaria by 2015; reducing the child mortality rate in 2015 by two-thirds compared to 1990, and; reducing the maternal mortality in 2015 by three-quarters compared to 1990.<sup>17</sup>

Much will be required to meet these goals, including significant financial resources, community involvement, and strong government commitment. They will also require human resources – the doctors, nurses, and other health care workers to provide the health services needed to meet these goals. Unless greater attention is given to developing human resources, these goals almost certainly will not be met.

Many low-income countries are facing serious shortages of health care workers.<sup>18</sup> Many of the countries in sub-Saharan Africa, the region that is the focus of this paper,<sup>19</sup> are experiencing the most severe shortages. The shortages of health care workers have multiple causes, the significance of which varies by country. In Malawi, for example, the most significant cause for loss of health care workers is death, primarily from HIV/AIDS.<sup>20</sup> The Malawi Human Resource Plan (1999-2004) assumes that 2.8% of health care workers will die annually, though even this may be an underestimate.<sup>21</sup> A government hospital in Malawi with 1,000 patients has only one doctor and one nurse because the rest of the staff has died.<sup>22</sup> Death is a major cause of attrition elsewhere as well. By November 2002, at least 22 of approximately 1,000 working doctors in Ghana had died since the beginning of the year.<sup>23</sup>

Fear of occupational infections, especially from HIV/AIDS, discourages some from joining the health professions, and motivates others to leave them.<sup>24</sup> A number of countries have inadequate training institutions that have limited the number of health professionals whom they can train. Nearly a dozen African

countries have no medical schools at all.<sup>25</sup> In Kenya and elsewhere on the continent, policies driven by macroeconomic concerns limit the number of health care workers employed.<sup>26</sup> One of the most significant causes of the dearth of health care workers, and in some countries the largest factor in this shortage, is the so-called brain drain. Brain drain, as used in this report, refers to the exodus of health care workers from low-income nations in Africa and elsewhere to the wealthier countries of the North.<sup>27</sup>

Brain drain is one of the most important factors for the shortage of health professionals in numerous countries. Brain drain implicates many of the other factors contributing to the shortage, such as macroeconomic policies and fear of infection, that will have to be addressed as part of a comprehensive response to brain drain. It is also an uncompensated transfer of resources from poor to rich countries that is part of a series of interactions between rich and poor nations, including third world debt and agricultural subsidies that interfere with the enjoyment of human rights in poorer nations.

Brain drain is a symptom of other health system deficits including health facilities without adequate supplies of medications, functioning equipment, and constant supplies of clean water and electricity; health care workers without gear to protect them from HIV and other communicable diseases; spending that is far below what is required to provide a minimal essential package of health care, and; inadequate human resources for health management policies. Many health professionals who have the opportunity to leave are rejecting these substandard, second-class health systems that their countries and the international community have been too slow to upgrade.

### HIV/AIDS Crisis and Brain Drain

The global HIV/AIDS crisis is bringing new attention to the desperate shortages of health professionals in sub-Saharan Africa. Worldwide, approximately 40 million people are living with HIV/AIDS. In 2003, about 3 million people, about 77% of whom were in sub-Saharan Africa, died of AIDS, while another 5 million people became infected with HIV/AIDS, of whom about 64% were in sub-Saharan Africa.<sup>28</sup>

Perhaps the most salient connection between AIDS and these shortages comes from recent efforts in Africa

to scale up AIDS treatment initiatives. Botswana, the first African country to start a universal AIDS treatment initiative, is experiencing more difficulty than anticipated scaling up its treatment efforts. One of the major reasons cited by Botswana's President Festus G. Mogae is the country's lack of doctors, nurses, pharmacists and other health workers.<sup>29</sup> Yet Botswana has more doctors and nurses per capita than most countries in sub-Saharan Africa,<sup>30</sup> a fact that highlights the urgency of addressing deficits in human resources for health.<sup>31</sup>

The AIDS pandemic also increases the workload on already overburdened health care workers. Hospitals in many AIDS-burdened countries are literally overflowing with HIV/AIDS patients, who occupy 50% or more of hospital beds.<sup>32</sup> A study in South Africa found that patients with HIV/AIDS spend nearly twice as long in hospitals as patients without HIV/AIDS.<sup>33</sup> Health professionals' increased workload contributes to stress and burn-out, which can lead them to drop out of the health sector. The death and illness of health care workers themselves, along with lost work time due to caring for people living with HIV/AIDS and attending funerals, further exacerbates the shortage of health care workers.

AIDS also hampers the recruitment and retention of health care workers. Fear of becoming infected with HIV on the job discourages people from entering the health profession, and this fear and the accompanying stress may lead health workers to leave the profession or the country.<sup>34</sup> The loss of teachers and other staff to HIV/AIDS reduces the capacity of health training institutions to train new health workers, as well as the ability of schools to produce students qualified to enter the health profession.<sup>35</sup>

### **Growing International Recognition of Need to Respond**

International and regional organizations are increasingly recognizing the urgency of addressing brain drain of health professionals.<sup>36</sup> In 2002, the World Health Assembly, the annual organizational meeting of WHO, passed a resolution addressing brain drain. The resolution requests that the WHO Director-General "accelerate development of an action plan to address the ethical recruitment and distribution of skilled health-care personnel, and the need for sound national policies and strategies for the training and management of human resources for health."<sup>37</sup> Two years later, the 57<sup>th</sup> World Health Assembly passed a resolution devoted to the international migration of health personnel. The resolution solidified human resources for health development as a top priority for WHO, even encouraging a year or decade be declared that of "Human Resources for Health Development," and committing WHO to developing human resources capacity in all of its relevant program areas. The resolution also urges states to mitigate

the impact of migration of health personnel, to develop strategies to help retain health personnel, and for recipient countries, to help strengthen health systems in countries of origin.<sup>38</sup>

On a regional level, the African Union has designated this year, 2004, as the "Year for Development of Human Resources with Special Focus on Health Workers."<sup>39</sup> The New Partnership for Africa's Development (NEPAD) recognizes the need to create the political, economic, and social conditions that will curb brain drain, and to use the knowledge and skills of the African diaspora for the development of Africa.<sup>40</sup> Heads of a broader collection of states, the African, Caribbean and Pacific Group of States (ACP), recognized the significant impact of brain drain in the context of the capacity of the health system at a 2002 summit. They noted the mobility of ACP citizens, "including the associated problem of brain drain . . . has a strong impact on the development of the effected states."<sup>41</sup> In 1997, the World Organization of Family Doctors (WONCA) called for governments and medical councils of developed countries to examine their policies on recruiting doctors from developing countries.<sup>42</sup>

### **Plan of Action and Guiding Principles**

The causes of brain drain are complex and interrelated, involving social, political, and economic factors. The necessary responses will therefore be varied and cover an array of areas. Drawing on growing interest and scholarship,<sup>43</sup> PHR proposes this plan of action for addressing brain drain and the unequal distribution of health personnel within countries, recommending actions by high-income countries, African governments, the World Health Organization, international financial institutions, private businesses, and others.

Responses that involve or are closely related to the health sector are the focus of this report; those dealing with broad issues such as development and governance are generally beyond its scope. Yet they must also be addressed. Some of the responses are narrow solutions to brain drain, and in many cases can be implemented relatively quickly. Others implicate broad issues of health system development and could take many years to fully implement, though the implementation can and must begin right away. Significantly reducing brain drain requires deep and sustained commitment.

PHR will mobilize governments and pertinent organizations to direct their resources and energies to a specific series of actions needed to build equitable health systems, hoping to gain increased recognition for broad principles required to achieve this goal. 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. Greater recognition of the importance of investments in people's

health to economic development might lead donors and governments to more readily give the health sector the resources it requires. Low-income country and donor responses to brain drain can be measured, in part, by whether this infusion of resources is forthcoming.

Any serious response to brain drain that is intended to be more than a temporary, partial fix, will entail significant new funding largely for health systems, not specific disease programs. Much more than money is needed to improve health systems – policies must be reformed and certain priorities newly emphasized. Within the health sector, systemic changes are needed, including in the priority given to equity, management, and human resources. Systemic changes must extend beyond the health sector to economic policies that provide a framework for government spending.

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 economic growth, they should be willing to *make* the corresponding investments. Good health is needed for economic development. This reality, while always true, takes on special significance in light of the AIDS pandemic. Governments and international development and financial organizations must factors this understanding into their policies and priorities.

These points are among fourteen guiding principles that PHR provides in this report to help create a framework for the policy responses needed and options available to address the crisis of health sector human resources in sub-Saharan Africa. Before reaching these principles and plan of action, it is necessary to first understand the severity of brain drain and the shortage of health professionals to which it contributes, as well as the impact of this shortage.

## NOTES

<sup>15</sup> Of the 3 million people who are to be on treatment by the end of 2005 according to the 3 by 5 initiative, an estimated 400,000 were on anti-retroviral therapy at the end of 2003. World Health Organization, *Treating 3 Million by 2005: Making it happen: The WHO Strategy* (Dec. 2003), at 5. Available at: <http://www.who.int/3by5/publications/documents/isbn9241591129/en/>.

<sup>16</sup> See White House, *President Delivers "State of the Union,"* Jan. 28, 2003. Available at: <http://www.whitehouse.gov/news/releases/2003/01/20030128-19.html>. Congress passed authorizing legislation on US efforts to combat HIV/AIDS, tuberculosis, and malaria in May 2003. The legislation included a "sense of Congress" that at least 2 million people should be on AIDS treatment by the end of fiscal year 2006. United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, Public Law No. 108-25 (2003), 117 Stat. 711, at sec. 402.

<sup>17</sup> World Bank Group, *Millennium Development Goals*, <http://www.developmentgoals.org>. Last updated Sept. 2003.

<sup>18</sup> For purposes of this paper, "low-income" countries include all sub-Saharan nations, even those not typically classified as low-income, including South Africa.

<sup>19</sup> Although most examples in this paper are drawn from Anglophone sub-Saharan Africa, it is assumed that because of the similarities among these and other sub-Saharan countries along pertinent dimensions, such as severity of shortages of trained health personnel and underinvestment in health systems, recommendations in this paper are relevant to sub-Saharan Africa generally, and in some cases, to developing countries as a whole. This is not to deny or understate the uniqueness of each country. As one of the guiding principles discussed in the body of the paper states, the precise strategies to address brain drain will be specific to each country.

<sup>20</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 22. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>. HIV prevalence among health sector staff

reached 40% in Zambia in the early-mid-1990s, and in 1999, Botswana's HIV prevalence among health care workers was 17-32% in 1999, potentially increasing to 28-41% in 2005. Desmond Cohen, *Human Capital and the HIV Epidemic in Sub-Saharan Africa*, June 2002, at 19. Available at: [www.ilo.org/public/english/protection/trav/aids/download/pdf/wp2\\_humancapital.pdf](http://www.ilo.org/public/english/protection/trav/aids/download/pdf/wp2_humancapital.pdf).

<sup>21</sup> See Javier Martínez & Tim Martineau, *DFID Health Systems Resource Centre Issue Paper: Human Resources in the Health Sector: An International Perspective* (May 2002), at 11. Available at: [http://www.healthsystems.org/Text%20docs/Human\\_resources.doc](http://www.healthsystems.org/Text%20docs/Human_resources.doc).

<sup>22</sup> See Stephanie Nolen, "Continent's educated can no longer run things: They're dead or can't cope." *Globe & Mail*, June 19, 2002. Available at: <http://www.geocities.com/ericquire/articles/af061902b.htm>.

<sup>23</sup> See David Allen Paintsil, "Ghanaian Doctors Are Dying." *Ghanaian Chronicle*, Nov. 8, 2002. Available at: <http://allafrica.com/stories/200211080838.html>.

<sup>24</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 11, 25 ("many staff are leaving because of their perception of risk"; "The perception that nursing is a *high-risk and unrewarding profession* [due to high workload, inadequate protection measures and lack of essential materials] is a deterrent to potential applicants.") (emphasis in original). Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.

<sup>25</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 7.

<sup>26</sup> For example, 4,000 nurses are unemployed in Kenya because of limitations on how much Kenya can spend on health sector wages. Jongwook Lee, *Meeting of Interested Parties: Opening Session*, Geneva, Switzerland, Nov. 3, 2003. Available at: [http://www.who.int/dg/leel/speeches/2003/MIP\\_Openingsession/en/](http://www.who.int/dg/leel/speeches/2003/MIP_Openingsession/en/).

- <sup>27</sup> The movement of health professionals is more complicated than migration from wealthy to poor countries. Health professionals also migrate from wealthy to poor countries and from poorer to less poor developing countries. They also move within countries, especially from rural to urban areas, as well as the public to private sector. This paper focuses on migration from poor to rich countries, and will also examine inequities in health worker distribution between rural and urban areas. The use of the term “brain drain” is not meant to imply that there are not very many talented, dedicated health professionals who remain in their country of origin. Certainly there are. Nor is the term intended to imply that many of those who do leave are not deeply committed to their country of origin and the well-being of its people.
- <sup>28</sup> UNAIDS, *AIDS Epidemic Update: December 2003* (Dec. 2003), at 5. Available at: [http://www.unaids.org/wad/2003/Epiupdate2003\\_en/EpiUpdate2003\\_en.pdf](http://www.unaids.org/wad/2003/Epiupdate2003_en/EpiUpdate2003_en.pdf).
- <sup>29</sup> See Celia W. Dugger, “Botswana’s Brain Drain Cripples War on AIDS.” *New York Times*, Nov. 13, 2003, at A10. Other factors in the slower than expected increase in people with HIV/AIDS on anti-retroviral medication in Botswana are the relatively slow pace of building clinics, laboratories, and drug warehouses and VCT. See *id.*
- <sup>30</sup> See World Health Organization, *WHO Estimates of Health Personnel: Physicians, Nurses, Midwives, Dentists and Pharmacists (around 1998)*, [http://www3.who.int/whosis/health\\_personnel/health\\_personnel.cfm?path=whosis,health\\_personnel&language=english](http://www3.who.int/whosis/health_personnel/health_personnel.cfm?path=whosis,health_personnel&language=english). Accessed Jan. 30, 2004.
- <sup>31</sup> One response to the shortage of doctors, nurses, and other health workers that require considerable training has been to elevate the importance of community health workers. WHO’s 3 by 5 strategy includes training tens of thousands of community treatment supporters. See World Health Organization, *Treating 3 Million by 2005: Making it happen: The WHO Strategy* (Dec. 2003), at 55. Available at: <http://www.who.int/3by5/publications/documents/isbn9241591129/en/> (stating that 100,000 health providers and community treatment supporters will be trained by the end of 2005).
- <sup>32</sup> For example, 50% of hospital beds in the Democratic Republic of Congo are occupied by people with HIV/AIDS. “Half of hospital beds in DR Congo taken by AIDS sufferers: UN.” *Agence France-Presse*, Dec. 1, 2003. Available at: <http://www.reliefweb.int/w/rwb.nsf/0/6aa4d4636b9e696349256df00011ee94?OpenDocument>. About 80% of hospital beds in Uganda are occupied by people with HIV/AIDS. Dorothy Nakaweesi, “AIDS Patients Take Up to 80% Hospital Beds.” *Monitor* (Uganda), June 8, 2003.
- <sup>33</sup> Patients in public hospitals who were HIV-positive spent an average of 13.7 days in the hospital, compared to the 8.2 days spent by patients who were HIV-negative. Kaisernetwork.org, “Nearly Half of Patients in South African Public Hospitals HIV-Positive, ‘Secret’ Report Says.” *Kaiser Daily HIV/AIDS Report*, Feb. 2, 2004.
- <sup>34</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 11, 25. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.
- <sup>35</sup> *Id.* at 6.
- <sup>36</sup> The impact of brain drain of professionals from developing countries has long been recognized. In December 1968, UN General Assembly Resolution 2417 noted “with concern that high skilled personnel from the developing countries continue to emigrate at an increasing rate to certain developed countries, which in some cases may hinder the process of economic and social development in the developing countries.” International Organization of Migration, Migration for Development in Africa (MIDA) Program, *The international community knows about the adverse effects of the brain drain for a long time . . .* (Oct. 2002). Available at: [http://www.iom.int/en/Presentations/MIDA-Health/pages/Slide16\\_JPG.htm](http://www.iom.int/en/Presentations/MIDA-Health/pages/Slide16_JPG.htm).
- <sup>37</sup> World Health Organization, 55<sup>th</sup> World Health Assembly (May 2002), Res. WHA 55.11, Health and Sustainable Development. Available through: [http://policy.who.int/cgi-bin/om\\_isapi.dll?infobase=wha&softpage=Browse\\_Frame\\_Pg42](http://policy.who.int/cgi-bin/om_isapi.dll?infobase=wha&softpage=Browse_Frame_Pg42).
- <sup>38</sup> World Health Organization, 57<sup>th</sup> World Health Assembly (May 22, 2004), Res. WHA 57.19, International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries. Available at: [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R19-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf).
- <sup>39</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.
- <sup>40</sup> See New Partnership for Africa’s Development, *New Partnership for Africa’s Development (NEPAD)* (Oct. 2001), at para. 121-22. Available at: [http://www.touchtech.biz/nepad/files/documents/nepad\\_english\\_version.pdf](http://www.touchtech.biz/nepad/files/documents/nepad_english_version.pdf).
- <sup>41</sup> International Organization of Migration, Migration for Development in Africa (MIDA) Program, *3<sup>rd</sup> Summit of the ACP Heads of State and Government, Nadi (Fidji), 18.-19.08.2002* (2002). Available at: [http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide22\\_JPG.htm](http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide22_JPG.htm).
- <sup>42</sup> See Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).
- <sup>43</sup> See, e.g., Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 22. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>; Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>; USAID, Bureau for Africa, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003); USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 5. Available at: <http://www.aed.org/publications/HealthSector.pdf>; Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf); William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 4. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt>.

# III. THE SCOPE AND IMPACT OF BRAIN DRAIN ON HEALTH PROFESSIONALS FROM AFRICA

## SHORTAGE OF HEALTH PERSONNEL IN SUB-SAHARAN AFRICA

### Overview of shortage

Sub-Saharan Africa is facing a severe shortage of health personnel. About 38 of approximately 47 countries in sub-Saharan Africa do not meet the WHO recommended minimum 20 physicians per 100,000 population.<sup>44</sup> WHO recommends at least 100 nurses per 100,000 population for the least developed countries; about 17 sub-Saharan countries have 50 or fewer.<sup>45</sup> According to the latest available data, which ranges from the 1990s through 2002, 13 sub-Saharan countries have five or fewer physicians per 100,000 population.<sup>46</sup>

Even these dire statistics may understate the extent of the shortage of doctors and nurses. As the AIDS crisis has deepened, the need for health professionals and the burden on already strained health systems continues to grow as patients with AIDS-related complications fill hospital wards. The need for health personnel grows too as new funds create the possibility of expanding coverage of HIV/AIDS interventions, including anti-retroviral therapy. A case in point is Botswana, which in 1994 had about 23.8 physicians and 219.1 nurses per 100,000 population,<sup>47</sup> yet is now finding staff shortages to be a significant obstacle to scaling up AIDS treatment. Although South Africa had about 27 public sector physicians per 100,000 population in 1998,<sup>48</sup> in 2001 South Africa's high commissioner to Canada reported that South Africa needs an additional 3,000 physicians.<sup>49</sup>

The following are health personnel statistics for many of the countries in Africa most heavily affected by HIV/AIDS. Except where otherwise noted, the figures for physicians are the latest available statistics (1990-2002) from the UN Development Programme (UNDP),<sup>50</sup> and the figures for nurses are the latest available from WHO.<sup>51</sup> As WHO states when providing its estimates, accurate figures are extremely difficult to obtain, so they should be taken as approximate. Also, the figures for health professionals do not necessarily reflect the emigration of health professionals or the fact that some people are certified health professionals but not practicing, so some figures might overstate the number of health professionals actually practicing in the country. The figures may also be misleading in that illness, family care-

taking responsibilities, additional jobs to supplement income, and other factors prevent many health professionals from working full time.

Country	Doctors per 100,000 population	Nurses per 100,000 population	Midwives per 100,000 population
Botswana	26	219.1 (1994)	N/A
Democratic Republic of Congo	7	44.2 (1996)	N/A
Ethiopia	3	N/A	N/A
Ghana	6	72.0 (1996)	53.2 (1996)
Kenya	14	90.1 (1995)	N/A
Lesotho	7	60.1 (1995)	47.0 (1995)
Malawi <sup>52</sup>	2.2 (c. 2000)	17.2 (c. 2001)	N/A
Namibia	29	168.0 (1997)	116.5 (1997)
Nigeria	19	66.1 (1992)	52.4 (1992)
South Africa (public sector) <sup>53</sup>	27 (1998)	300 (1998) <sup>54</sup>	N/A
South Africa <sup>55</sup> (total)	71.5 (2001)	401.1 (2001)	N/A
Tanzania	4	85.2 (1995)	44.8 (1995)
Uganda <sup>56</sup>	5.6 (c. 2001)	21.1 (c. 1996)	58.8 (c. 1996)
Zambia	7	113.1 (1995)	N/A
Zimbabwe	14	128.7 (1995)	28.1 (1995)

By comparison, the numbers of nurses in European countries (and the United States) typically range from several hundred to well over 1,000 per 100,000 population.<sup>57</sup> The Organization for Economic Cooperation and Development (OECD) countries average about 222 physicians per 100,000 population.<sup>58</sup> Even most low-income countries have significantly more health professionals, especially physicians, than African countries. In contrast to the 13 African countries with five or fewer physicians per 100,000, only one country outside Africa (Nepal) shares this unhealthy distinction. In the late 1980s, all developing countries had about 71 doctors per 100,000, compared to about nine per 100,000 in sub-Saharan Africa.<sup>59</sup>

Another measure of the severity of the shortage of health personnel in sub-Saharan Africa is the vacancy rates of established posts in the public health sector. Since

established posts may not reflect real need, these may be underestimates, and may be based on faculty norms. In Malawi, only 1,842 of 6,620 (28%) established posts for nurses are filled, according to a 2003 government survey.<sup>60</sup> The situation has deteriorated since 1998, when about 47% of nursing posts were filled.<sup>61</sup> The 2003 Malawi survey found that in central hospitals, only 9.3% of specialist posts were filled, including only one of 24 surgeon posts.<sup>62</sup> A 1998 survey found that the vacancy level for specialists in Ghana was 72.9%.<sup>63</sup> The public health sector of South Africa serves 80% of the country's population though has only about 38% of the country's active physicians and 50% of active nurses.<sup>64</sup> In a study published in 2003, South Africa's Department of Health estimated that more than 4,000 physician posts were unfilled, as were more than 32,000 nursing posts.<sup>65</sup> These unfilled posts represent a significant portion of the approximately 11,500 physicians and 86,000 nurses working in the public sector in South Africa.<sup>66</sup>

Shortages in health management posts can hamper the ability of health ministries to develop and implement strategies necessary to improve health services. In Malawi, the Ministry of Health and Population's Planning and Administration units had only three of 11 posts filled in 2003.<sup>67</sup> South Africa's Eastern Cape Province has been experiencing a particularly severe shortage in health management posts, such as medical superintendents, district nursing managers, and professional administrators. Across the province's five regions, only 14% to 44% of health professional management posts were filled in 2002, as were only 17% to 45% of administrative management posts.<sup>68</sup>

Donor programs can contribute to shortages in certain skill areas. In Malawi, donor preference for vertical, single-disease programs, which focus training on clinical skills, has contributed to the shortage of personnel with the management skills required to run health systems. One result is that the "shortfall in managers and administrative bottlenecks [in Malawi] are a major reason for the low absorption of donor resources, including that in aid administration, procurement and financial management."<sup>69</sup> Also in Malawi, "It is estimated that there are less than six people in the civil service who are trained and specialized in human resource planning."<sup>70</sup> The fact that there are shortages of civil servants with the skills needed for aid administration and for human resource planning points to the urgent need to train more civil servants in these management skills to ensure that donors' funds are effectively used and that sound human resource policies are developed and implemented.

Those health professionals who are in sub-Saharan Africa are often unable to conduct full work-weeks practices. HIV/AIDS not only means that many health workers are dying, but also that they need to care for family

members with HIV/AIDS, to attend funerals, and to tend to their own health needs. An assessment of laboratory staff in Malawi found that because of these factors, the average laboratory technician worked 23.8 hours per week, not the expected 44 hours per week.<sup>71</sup> Further, many public sector health professionals supplement their income with private sector work.<sup>72</sup> To the extent that some of this private work is conducted during public sector working hours, the size of the public health workforce is effectively diminished.

### Shortage in rural areas and other poor districts

Health professional shortages are the most severe, by far, in rural and other poor areas. In 1981, WHO observed, "In many countries, there are ten times as many people for every doctor in rural areas as there are in metropolitan areas."<sup>73</sup> The manifold inequities between urban and rural health care have persisted.

A 1989 census in Kenya revealed that while Nairobi had 688 health care workers per 100,000 population, the sparsely populated, primarily rural North-Eastern Province had only 138 health care workers per 100,000 population.<sup>74</sup> In the early 1990s in Southern Africa, the richest districts had about twice the number of nurses, more than six times the number of doctors, and 11 times the number of pharmacists as the poorest districts.<sup>75</sup> In Malawi, 96.6% of clinical officers are in urban health facilities, and about 25% of nurses and half of physicians are in Malawi's four central hospitals. Yet Malawi's population is 87% rural.<sup>76</sup> About 95% of the fewer than 100 surgeons in Uganda work in urban areas.<sup>77</sup> In South Africa, a country where 46% of the population lives in rural areas, only 12% of physicians and 19% of nurses practice in those rural areas.<sup>78</sup> South Africa's mostly urban Western Cape and Gauteng provinces have some 180 physicians per 100,000 population, whereas the more rural Northern Province and Eastern Cape have 21 and 34 physicians per 100,000 population, respectively.<sup>79</sup>

The primary causes for the rural/urban inequities are the degraded health infrastructure and less favorable living conditions in rural areas. Equipment and buildings are likely to be in worse state in rural areas,<sup>80</sup> and rural health facilities are less likely to have uninterrupted supplies of clean water and electricity, and are frequently less well supplied with medicine and equipment than their urban counterparts.<sup>81</sup> Living conditions are also less favorable, including limited access to clean water and fewer educational opportunities for the children of health professionals. In some rural areas, language is a barrier to practicing. English is widely spoken in urban areas in Anglophone Africa, but even in Anglophone countries including Nigeria and Ghana, it is sometimes not spoken in rural areas.<sup>82</sup>

## The Scope of Brain Drain

The Southern African NGO Equinet has described the flow of health personnel that “follow[s] a hierarchy of ‘wealth’ resulting in a global conveyor belt of health personnel moving from the bottom to the top, and resulting in a vicious cycle of increasing inequity.”<sup>83</sup> The “conveyor belt” takes health professionals in rural areas to urban areas; from primary health facilities to secondary and tertiary facilities; from public practice to private practice; from public sector to vertical programs; from poorer developing countries to wealthier developing countries, and; from developing countries to developed countries. This last segment is “brain drain” as the term is used in this report, though the other health personnel flows could aptly be described as brain drain as well.

Brain drain can contribute to internal flows of health professionals and exacerbate the shortages in rural areas. If recruitment creates vacancies in urban areas, health professionals from rural areas will have increased opportunities to practice in more desirable urban posts. Such interplay between internal and international migration has occurred in South Africa.<sup>84</sup>

The degree to which brain drain is responsible for the shortage of health professionals varies by country and profession.<sup>85</sup> For countries that have lost large portions of their physicians to brain drain — in some cases, half or more — emigration clearly bears great responsibility for their doctor shortages. It could be that the country would still be suffering a shortage of physicians had those doctors never left. Perhaps it does not train enough doctors, or quite possibly funds needed to pay all the physicians would be unavailable. Urban need might be met absent brain drain, but serious rural shortages could persist for reasons including inadequate human resource management and planning and the same poor living and working conditions that are central to today’s shortages in rural areas. Similarly, low salaries and poor conditions at public health facilities might leave the public sector short of health professionals, even if the health sector as a whole were to have adequate numbers of them.

The contribution of brain drain to the overall shortage also varies over time. It has become a much greater factor in the shortage of nurses over the past decade, even as AIDS has become an important aspect of the shortage. Even where the contribution of brain drain to the overall health professional shortage is small, the contributions of responding in ways this report proposes could be great. Through responses like strengthening human resource management, infusing the health system with funds, and supporting pre-service training, which are all key measures for countries suffering significant brain drain, even countries whose shortages are not pri-

marily due to brain drain will gain tools and resources to address those shortages.

Data from the American Medical Association (AMA) Physicians Masterfile reveals that 5,334 non-federal physicians trained in African medical schools were licensed to practice medicine in the United States in 2002. Most are from Nigeria – 2,158 physicians – and South Africa – 1,943 physicians. Another 478 physicians are from Ghanaian medical schools. Other contributing countries include Ethiopia (257 physicians), Uganda (153 physicians), and Kenya (93 physicians).<sup>86</sup> The 5,334 physicians represent more than 6% of the total number of African physicians.<sup>87</sup>

Other statistics that have been reported suggest that the actual numbers of African physicians who have migrated to the United States is significantly higher than the number licensed to practice in the United States. While these statistics might not be perfectly accurate, they are suggestive. For example, according to the 1993 *Human Development Report*, 21,000 Nigerian physicians were practicing in the United States.<sup>88</sup> The discrepancy between this figure and that from the AMA can be attributed at least in part to some health professionals either choosing an aspect of the profession that does not require a license, such as public health and research, or an allied profession, or leaving the health profession altogether. Some may have returned to Nigeria, though for most physicians, migration is permanent.<sup>89</sup> As another example, the Ghana Medical Service estimates that 1,200 Ghanaian physicians are in the United States.<sup>90</sup>

Other data and estimates further reveal the extent of brain drain. By one measure, about 50% of medical school graduates from Ghana emigrate within 4.5 years, and 75% within 9.5 years.<sup>91</sup> During the 1990s, 1,200 physicians were trained in Zimbabwe; only 360 were still practicing in the country in 2001.<sup>92</sup>

The South African Medical Association estimates that at least 5,000 South African doctors have moved abroad, mostly to the United States, Canada, the United Kingdom, and Australia.<sup>93</sup> The Organisation for Economic Co-operation and Development (OECD) places the number of doctors, dentists, veterinarians, pharmacists and other diagnostic practitioners in these four countries plus New Zealand at 8,921 in 2001.<sup>94</sup> Along with the nearly 2,000 graduates of South African medical schools who practice in the United States, another 1,845 practice in Canada.<sup>95</sup> A public health specialist with Ethiopia’s Ministry of Health has estimated that about one-third of Ethiopian physicians trained from 1988 to 2001 have left the country.<sup>96</sup> Zambia’s public sector has retained only 50 of the 600 physicians that have been trained in the country’s medical school from approximately 1978 to 1999.<sup>97</sup> More

Malawian doctors are said to be in Manchester, England, than in all of Malawi.<sup>98</sup>

After the United States, the United Kingdom and Canada are the most common destinations in high-income countries for African-trained physicians, with 3,451, and 2,151 African-trained physicians reported to be practicing in United Kingdom and Canada, respectively. The United Kingdom figure includes only physicians who arrived after 1992, so the actual number is probably significantly higher.<sup>99</sup> Other destinations outside Africa include Australia, New Zealand, and the Gulf States.<sup>100</sup>

Nurses are leaving too. Britain is the major destination for African nurses. In 2000/2001, 2,093 nurses from South Africa, Zimbabwe, Nigeria, Ghana, Zambia, and Kenya registered in the United Kingdom. About half (1,086) were from South Africa.<sup>101</sup> The number nearly doubled the following year, with 3,552 nurses from these six countries registering in the United Kingdom,<sup>102</sup> then fell to 3,039 in 2002/2003.<sup>103</sup> These nurses represent part of a larger trend in the United Kingdom of recruiting nurses from abroad, especially from countries outside the European Union. The number of nurses registering in the United Kingdom from outside the European Union grew from fewer than 2,000 in 1994/1995 to more than 15,000 in 2001/2002.<sup>104</sup>

By contrast, in 2000, about 437 nurses from sub-Saharan Africa applied for a nursing license in the United States,<sup>105</sup> a slight decrease from the 505 who applied in 1999.<sup>106</sup> These figures likely underestimate how many migrated from sub-Saharan Africa annually, as the nurses might not take the nurse licensing exam immediately upon arriving, if at all. Overall, there has been a sharp swing upward in the number of foreign-trained nurses in the United States. In 1998, 6% of nurses entering the US nursing workforce were trained abroad. By 2002, that proportion had increased to 14%.<sup>107</sup>

A study of brain drain in Ghana revealed a possible partial explanation for the different levels of migration of African nurses to the United States and the United Kingdom. The nurses preferred the United Kingdom to the United States because it is easier to register as a nurse in Britain than in the United States. Ghanaian nurses cited the need to pass examinations in the United States (but not the United Kingdom), as well as the higher costs associated with migrating to the United States, including airfare and examination costs.<sup>108</sup>

The Democratic Nursing Organisation of South Africa has reported that more than 300 specialist nurses leave South Africa every month, many never to return.<sup>109</sup> Several years ago it was reported that about 300 nurses leave Zimbabwe yearly, many to the United Kingdom, but also to neighboring Botswana and South Africa.<sup>110</sup> That number is rising. In 2001/2002, 473 Zimbabwean

nurses went to the United Kingdom alone.<sup>111</sup> In 2001, Zimbabwe had nearly 2,000 vacant public sector nursing posts.<sup>112</sup> Ghana currently has only about half the number of nurses as it had in the mid-1980s.<sup>113</sup> In 1999 alone, 328 nurses emigrated from Ghana, at the time approximately equivalent to the number of nurses Ghana produced annually.<sup>114</sup> (Ghana has since doubled its annual nurse output.)<sup>115</sup> Forty-five nurses from Malawi registered in the United Kingdom in 2001, up from a single nurse in 1999.<sup>116</sup> While 45 may appear small, it is a significant loss for a country with only about 17 nurses per 100,000 population. During the three year period 1999-2001, 114 of 190 nurses left a single hospital in Malawi, and "it can be safely assumed that a significant proportion will have migrated."<sup>117</sup> Swaziland reported losing 29 nurses to the United Kingdom in the single month of April 2004. That is nearly one-third of all nurses trained in Swaziland each year.<sup>118</sup>

Nurses are thought to be more likely than physicians to return to their country of origin after spending several years abroad, though views vary. On the one hand, UK statistics from 1995 reveal that more than half of foreign nurses left the United Kingdom within three years, while most foreign nurses who stayed at least four years were likely to be permanent immigrants.<sup>119</sup> On the other hand, a more recent study of foreign nurses in the United Kingdom found that managers of health care organizations believed that most nurses were in the country to stay, noting that many had brought their families with them and were purchasing homes.<sup>120</sup> One possible explanation for the difference may lie in the changing composition and number of foreign nurses from the mid-1990s to today. For example, in 1994/5, about one-third of foreign nurses who registered in the United Kingdom were from European Union (EU) countries, and the total number who registered was below 3,000. By contrast, in 2001/2, only some 1,000 of about 16,000 foreign nurses registering in the United Kingdom were from EU countries.<sup>121</sup>

Pharmacists are another set of health professionals who are emigrating from African countries. This loss is of particular concern as AIDS treatment scale-up gets underway, for pharmacists have a key role to play in treatment. According to South Africa's national AIDS treatment strategy, the country will need to increase the number of pharmacists by 25.4% by 2008, of whom most will be needed by March 2005.<sup>122</sup> Yet the South African Pharmacy Council reported that 600 pharmacists registered in South Africa emigrated in 2001.<sup>123</sup> According to one pharmacist in Zimbabwe, that country "has had a massive brain drain of pharmacists," many recruited to Britain. By that pharmacist's estimation, only about 20% of pharmacists who have been trained in Zimbabwe remain in the country.<sup>124</sup> In 2002, along

with 70 physicians and 214 nurses, Ghana lost 77 pharmacists to other countries.<sup>125</sup> The retail giant Wal-Mart is reported to be recruiting pharmacists from sub-Saharan Africa and India to work in their Canadian stores.<sup>126</sup>

## The impact of the shortage of health personnel

### Health impact

Health systems cannot operate without the people who run them. As the World Health Organization states, health personnel are the people “who make health care happen.”<sup>127</sup> Without adequate numbers of health personnel, both the quality and quantity of health services that a health system can deliver are reduced, limiting the number of people able to receive care, and diminishing the quality of care for those fortunate enough to receive it.

The most immediately observable effect of having far too few health personnel is that some health facilities simply do not have staff, forcing facilities to close and robbing some people from any meaningful access to health care.<sup>128</sup> This concern is greatest in rural areas, given the severity of the shortage there and the difficulty of replacing health personnel who leave their rural posts. In Mali, the government sought to increase people’s access to health services by expanding the number of community health posts, but in January 2001 it was found that 57% of these posts had closed for lack of personnel.<sup>129</sup> In Zambia, Malawi, and elsewhere, “the construction and refurbishment of health facilities has outpaced the health system’s ability to staff and maintain them on a sustainable basis.”<sup>130</sup> A report on the emigration of nurses from South Africa found that 60% of institutions surveyed had difficulty replacing the nurses they lost.<sup>131</sup>

Along with health facilities, pharmacies may close because of the loss of pharmacists. This can be a particular burden on the poor because pharmacies may offer free consultations and may be more accessible than health facilities. Many pharmacies are reported to have closed in Zimbabwe.<sup>132</sup> The loss of specialists can leave populations without access to certain forms of care,<sup>133</sup> as when a spinal injuries center in South Africa had to close because the center’s two anesthetists left for Canada.<sup>134</sup> In a continent where psychiatrists are precious few, Kenya lost more than one-quarter of its psychiatrists to brain drain, along with almost all of its occupational therapists.<sup>135</sup>

The loss of health personnel often will leave a health facility understaffed, possibly with unqualified personnel. Professionals may have to work in fields for which they have received little or no training because of the dearth of personnel educated in these disciplines. The

severe shortage of doctors and nurses in rural areas often leads to health facilities staffed by health personnel who are trained to treat only uncomplicated conditions. Patients with more complicated conditions are unlikely to receive proper care.<sup>136</sup> In Malawi, for example, under-trained staff have been called on to deliver babies, and ward attendants have had to perform the work of nurses.<sup>137</sup> In Ghana, physician shortages have led to “the inadvertent employment of non-credentialed individuals in desperate communities.”<sup>138</sup> Inexperienced health personnel may be promoted to more senior positions to fill voids created by the shortage of experienced personnel.<sup>139</sup> A new hospital in Ghana, Volta Regional Hospital, has to rely primarily on retired physicians and surgeons,<sup>140</sup> who may not be up-to-date in their medical training. Understaffing increases the workload on those who remain, reduces quality of care, and contributes to further health worker attrition.

Even patients who see physicians face risks generated by the shortage. Physicians are likely to be overworked, contributing to fatigue and possibly mistakes.<sup>141</sup> Furthermore, health professionals who have many patients will have less time to spend with each, limiting their ability to fully probe a patient’s condition, which may lead to a misdiagnosis and hence inappropriate treatment. A survey of nurses at a South African hospital found most believed they were overworked, reducing the quality of care they could provide. Of those nurses who responded that they were overworked, “94.8% felt this affected their own safety and 86.5% felt it affected their sensitivity towards patients.”<sup>142</sup>

Frequent departures lead to a high staff turnover rate, resulting in the loss of institutional memory. Strategies to combat diseases must be “reinvented time and time again due to the loss of key health personnel and the resulting gap in institutional continuity.” As a result, health personnel spend their precious time developing strategies that have already been developed.<sup>143</sup> The loss of institutional memory also limits the ability of health systems to build and refine strategies based on experience. The quality of supervision may deteriorate, as supervisors may have to provide clinical services in understaffed facilities rather than attending to their supervision duties.<sup>144</sup>

Health facilities that are understaffed are unlikely to be able to deliver timely health services, leading to long waiting times.<sup>145</sup> More than a mere inconvenience, long waits might deter people from seeking medical care at all. Such waits might also deter people from seeking care until their condition has progressed to a serious state, at which point treatment may be less effective than it would have been earlier. People might also delay seeking care because of doubts about the quality of care they will

receive, the distance to an appropriately staffed health facility, or rude staff, all of which may be due partially to the shortage of health professionals.

At a more macro level, health personnel shortages can prevent a country from scaling up interventions to achieve certain health goals, including the Millennium Development Goals.<sup>146</sup> According to one World Bank estimate, “Tanzania and Chad would need to increase their worker stock three-to-four fold by 2015 to provide the essential services aligned with the health” Millennium Development Goals.<sup>147</sup> The *Bulletin of the World Health Organization* reports, “Many decision-makers readily point to human resource problems as the chief bottleneck they face in attempting to scale up health systems.”<sup>148</sup> The lack of health workers is a limiting factor in Botswana’s ability to scale up its AIDS treatment. Botswana is trying “desperately” to get doctors from Cuba and China,<sup>149</sup> as well as from India.<sup>150</sup> The head of South Africa’s HIV/AIDS program has cited the shortage of doctors and nurses as a serious obstacle to implementing its national AIDS treatment and care strategy after the first year.<sup>151</sup> In Uganda, Ethiopia, and Nigeria, senior officials have cited a lack of health personnel as a major constraint to responding to health challenges.<sup>152</sup>

AIDS is far from the only disease for which health worker shortages are having a serious, adverse impact. For example, 17 of the 22 countries with the most severe tuberculosis burdens have “reported that their efforts to reach the 2005 targets are being hampered by staffing problems.”<sup>153</sup> The Global Alliance for Vaccines and Immunization (GAVI) reports, “Measles immunization coverage tends to be high when staffing ratios are good, and low when staffing ratios are poor.” A large majority of countries without at least 150 qualified health workers per 100,000 population fail to achieve 80% coverage for measles immunizations, whereas the vast majority of countries with at least 200 qualified health workers per 100,000 population do achieve this coverage.<sup>154</sup> Ghana health ministry representatives have observed that physician shortages have led to reduced immunization coverage.<sup>155</sup> GAVI has acknowledged that the shortage of health workers must be addressed to meet immunization coverage targets in a sustainable health system.<sup>156</sup> Similarly, a direct relationship exists between high density of health care workers and low child and infant mortality.<sup>157</sup> An official in Cameroon’s finance ministry has observed a direct relationship between the country’s worst health outcomes and regions where the staff shortages are greatest.<sup>158</sup>

If countries prioritize scaling up AIDS treatment and other AIDS interventions, but do not address their absolute shortage of health professionals sufficiently, there may be serious negative consequences. They may be able to find within their health systems the health

professionals whom they require for scale-up, but only at great cost to the overall functioning of the health system. To meet AIDS treatment targets, health professionals might be diverted from other health services, including critical primary health care interventions, so that “ambitious targets and plans . . . would be reached at the expense of other health services.”<sup>159</sup> In Malawi, a major reason that the 970-bed Lilongwe Central Hospital has a severe shortage of nurses and laboratory technicians is that staff members have left to work on HIV/AIDS programs sponsored by NGOs and overseas universities.<sup>160</sup>

Shortages of health personnel beget further shortages. The increased workload and decreased morale for those who remain may lead to burnout, or otherwise reduce the quality of life for remaining health personnel. Either result provides them an incentive to either leave the profession, the public health sector, or the country.<sup>161</sup> Lack of trainers – who, like other health personnel, are affected by brain drain, AIDS, and other factors contributing to the dearth of health care workers – may limit the ability of countries to train more health workers.<sup>162</sup> This may also harm the quality of that training. Zimbabwe’s Ministry of Health ordered the University of Zimbabwe’s medical school to triple the number of physicians it trains annually, even though the school has been losing faculty members. Professors fear that the quality of training will deteriorate as a result.<sup>163</sup> The loss of experienced personnel also reduces the quality of supervision that new graduates receive.<sup>164</sup>

### Financial loss

While the health effects of this shortage of skilled health professionals is paramount, the financial losses are also severe for national health and education systems, which in many cases are among the world’s most poorly funded. The vast majority of students in Africa attending health training institutions attend public schools, where tuition is paid for primarily or exclusively by the government.<sup>165</sup> When physicians, nurses, and pharmacists trained in these institutions leave the country, a significant public investment leaves with them.

It has been estimated that developing countries spend about \$500 million annually on training health professionals who migrate to developed countries.<sup>166</sup> In South Africa, where training a physician costs about \$61,000-97,000 and training a nurse costs about \$42,000, the overall loss to that country for all health professionals practicing abroad may top \$1 billion.<sup>167</sup> Training a physician costs the Nigerian government approximately \$30,000 (in or about 2001), and the Ghanaian government some \$20,000 (in or about 2000).<sup>168</sup>

Medical education tends to be more expensive in recipient countries than African countries, so the savings to the

United States and other high-income nations is even greater than the loss to African governments. The UN Conference on Trade and Development (UNCTAD) has estimated that for every foreign professional acquired, developed countries save \$184,000 in training costs.<sup>169</sup>

In addition, African countries experience indirect financial losses from the worsened health outcomes that result from the shortage of health professionals. Inadequate health care, in part attributable to this shortage, makes a country's workforce less efficient, and people are absent from work or less productive while at work because of health problems. When reduced access to quality care, insensitive staff, and long waiting times lead people to delay seeking treatment until their conditions become acute, their care typically becomes more expensive. While these costs are unknown and may be extraordinarily difficult to calculate, they are likely to be substantial,<sup>170</sup> and add to the financial burden of brain drain to African countries.

### Financial and skill gains

The financial costs of brain drain to African countries are offset slightly by remittances that health professionals who have migrated to high-income countries send to their family members back home. Remittances across all immigrant groups to low-income countries can be quite significant. For example, annual remit-

tances from the Ghanaian diaspora total about \$400 million, and are Ghana's fourth largest source of foreign exchange.<sup>171</sup> Remittances from health professionals are some fraction of the total remittances. The remittances are doubtless very important at the family level, but little of this money is likely to return to the health system or public coffers.

Some health professionals will return to their country of origin with additional skills and knowledge gained during their time abroad. Even those who permanently migrate may return temporarily to contribute their skills, or may be active in professional networks in the diaspora that contribute skills and resources to health systems in their countries of origin.<sup>172</sup>

The health professionals themselves also frequently benefit. They will likely be able to practice in much safer working conditions, use modern equipment, and no longer worry about running out of medicines or supplies. They will have more research opportunities and be better able to keep up-to-date with their profession. The civil and political rights of the health professionals and their families may receive greater respect, and their children may receive a better education. There are exceptions to these benefits. For example, in some cases, "recruitment agencies are reported to have charged exorbitant fees, misrepresented employment opportunities and failed to find employment for their clients."<sup>173</sup>

## NOTES

<sup>44</sup> United Nations Development Programme, *Human Development Report 2003* (2003), at 254-257. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html) (38 countries); World Bank, *The World Bank in Africa*, <http://www.worldbank.org/afr/>. Accessed June 12, 2004. (47 countries); Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 6. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf> (WHO standard of minimum 20 physicians per 100,000 population).

<sup>45</sup> Ndiro Ndiaye, *Statement by the Deputy Director General, International Organization for Migration*, presentation at 52<sup>nd</sup> Session of the WHO Committee Meeting for Africa, Harare, Zambia, Oct. 8-12, 2002. Available at: [http://www.iom.int/en/archive/DDG\\_WHO\\_081002\\_eng.shtml](http://www.iom.int/en/archive/DDG_WHO_081002_eng.shtml) (target of one nurse per 1,000 population). William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 4. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt> (17 countries).

<sup>46</sup> United Nations Development Programme, *Human Development Report 2003* (2003), at 254-257. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html); *Malawi Poverty Reduction Strategy Paper* (April 2002), at 58-59. Available at: <http://www.imf.org/external/np/prsp/2002/mwi/01/043002.pdf>.

<sup>47</sup> See World Health Organization, *WHO Estimates of Health Personnel: Physicians, Nurses, Midwives, Dentists and Pharmacists (around 1998)*, [http://www3.who.int/whosis/health\\_personnel/health\\_personnel.cfm?path=whosis,health\\_personnel&language=english](http://www3.who.int/whosis/health_personnel/health_personnel.cfm?path=whosis,health_personnel&language=english). Accessed Feb. 4, 2004. According to the Human Development Report 2003, which has the latest available data from 1990-2002, Botswana has 26 physicians per 100,000 population. United Nations Development Programme, *Human Development Report 2003* (2003), at 256. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html).

<sup>48</sup> Health Systems Trust, *Access: Distribution of personnel in the public sector*, <http://www.hst.org.za/hlink/equity/access.htm>. Accessed Feb. 5, 2004.

<sup>49</sup> "South Africa asks Canada to stop stealing doctors away." *CBC News*, Feb. 7, 2001. Available at: [http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr\\_docs010207](http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr_docs010207).

<sup>50</sup> See United Nations Development Programme, *Human Development Report 2003* (2003), at 254-257. Available at: [http://www.undp.org/hdr2003/indicator/indic\\_56\\_1\\_1.html](http://www.undp.org/hdr2003/indicator/indic_56_1_1.html).

<sup>51</sup> See World Health Organization, *WHO Estimates of Health Personnel: Physicians, Nurses, Midwives, Dentists and Pharmacists (around 1998)*, [http://www3.who.int/whosis/health\\_personnel/health\\_personnel.cfm?path=whosis,health\\_personnel&language=english](http://www3.who.int/whosis/health_personnel/health_personnel.cfm?path=whosis,health_personnel&language=english). Accessed May 23, 2004.

- <sup>52</sup> According to Malawi's Poverty Reduction Strategy Paper, Malawi has one physician per 45,737 people. See *Malawi Poverty Reduction Strategy Paper*, April 2002, at 4.2.3 Population and Health, at 58-59. Available at: <http://www.imf.org/external/np/prsp/2002/mwi/01/043002.pdf>. According to a draft version of Malawi's Comprehensive HIV/AIDS Management Strategy, Malawi has 379 registered nurses, 1,264 enrolled nurses/midwives, 11 public health nurses, and 160 enrolled community nurses, for a total of 1,814 nurses, the number used in calculating 17.2 nurses per 100,000 population. Malawi also has 287 health assistants and 3,347 health surveillance assistants. See *The Comprehensive HIV/AIDS Management Strategy for Malawi*, draft (August 2001), at 16. Number of nurses per 100,000 used population data from "Malawi." In: Central Intelligence Agency, *CIA World Factbook 2001* (2001). Available at: <http://www.umsl.edu/services/govdocs/wofact2001/geos/mi.html>.
- <sup>53</sup> Health Systems Trust, *Access: Distribution of personnel in the public sector*, <http://www.hst.org.za/hlink/equity/access.htm>, visited Feb. 5, 2004. These figures refer only to the public sector.
- <sup>54</sup> According to another source, only about half of South Africa's 400 nurses are in the public sector. See "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In: Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.
- <sup>55</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In: Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.
- <sup>56</sup> Dr. Edward Kanyesigye, Assistant Commissioner of Human Resource Development in the Ministry of Health, said in June 2000 that the current ratio of doctors to patients in Uganda was 1:18,000. See "Uganda: 1,000 doctors needed." *African News*, June 24, 2001. World Markets Analysis and an Ohio newspaper both report that the ratio of nurses to patients in Uganda is 1:4,730, and World Markets Analysis further reports that one midwife for every 1,700 women of childbearing age. World Markets Analysis cites a 1996 Inventory of Health Services for both statistics. See Michaela Saunders, "Nurses on front line in AIDS fight; CWRU students in Uganda to help, study treatment." *Plain Dealer*, July 15, 2002, at B7; World Markets Analysis, *Healthcare, Uganda – Medical Provisions*, <http://www.worldmarketsanalysis.com/servlet/cats?ID=11128&subSite=WMM&typeID=34&pageContent=crt>. Accessed Oct. 5, 2002 (password required).
- <sup>57</sup> See World Health Organization, *WHO Estimates of Health Personnel: Physicians, Nurses, Midwives, Dentists and Pharmacists (around 1998)*, [http://www3.who.int/whosis/health\\_personnel/health\\_personnel.cfm?path=whosis,health\\_personnel&language=english](http://www3.who.int/whosis/health_personnel/health_personnel.cfm?path=whosis,health_personnel&language=english). Accessed Nov. 20, 2002. In the late 1980s, the number of nurses per population was slightly lower in sub-Saharan Africa compared to all developing countries. Sub-Saharan Africa had about 47.6 nurses per 100,000 population, while all developing countries had about 58.8 nurses per 100,000 population. See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 86. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.
- <sup>58</sup> William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 4. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt>.
- <sup>59</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 86. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.
- <sup>60</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 20-21. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>61</sup> Global Alliance on Vaccines and Immunizations, *The health service brain drain – what are the options for change?* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).
- <sup>62</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 21. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>63</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 56. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.
- <sup>64</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In: Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.
- <sup>65</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In: Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.
- <sup>66</sup> The 11,500 and 86,000 figures are based on studies showing that of South Africa's 30,740 physicians and 172,338 registered in 2001, about 38% and 50%, respectively, worked in the public sector. "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In: Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.
- <sup>67</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 20-21. Available at: <http://www.equinet africa.org/Resources/downloads/discussionpaper12.pdf>.
- <sup>68</sup> See Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 25. In Ghana and Malawi, 43% and 36%, respectively, of physicians' posts in the public sector were unfilled in 1998. See World Health Organization, Regional Office for Africa & World Bank, *Building Strategic Partnerships in Education and Health in Africa: Consultative Meeting on Improving Collaboration between Health Professionals, Governments and Other Stakeholders in Human Resources for Health Development: Report on the Consultative Meeting*, Jan. 29-Feb. 1, 2002, Addis Ababa, Ethiopia, at 13.
- <sup>69</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 18. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>70</sup> *Id.*
- <sup>71</sup> *Id.* at 24.
- <sup>72</sup> See *Id.* at 21, Communicating Development Research, *Public sector doctors with second jobs* (March 2003), Available at: <http://www.id21.org/health/InsightsHealth3art2.html>; Paulo Ferrinho, Wim Van Lerberghe & Aurélio da Cruz Gomes, "Public and Private Practice: A Balancing Act for Health Staff." *Bulletin of the World Health Organization* (1999) 77(3): 209.

<sup>73</sup> World Health Organization, *Global Strategy for Health for All by the Year 2000* (1981), at 23. Available at: <http://whqlibdoc.who.int/publications/9241800038.pdf>.

<sup>74</sup> Neeru Gupta et al., "Uses of population census data for monitoring geographical imbalance in the health workforce: snapshots from three developing countries." *International Journal for Equity in Health* (2003) 2:11.

<sup>75</sup> In 1992/3, the poorest districts in Southern Africa had 5.5 doctors per 100,000 population, 188.1 nurses per 100,000 population, and 0.5 pharmacists per 100,000 population. By contrast, the richest districts had 35.6 doctors per 100,000 population, 375.3 nurses per 100,000 population, and 5.4 pharmacists per 100,000. Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 8. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>76</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 16. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>

<sup>77</sup> See Alfred Wasike, "Go to rural areas, PM tells medics." *New Vision (Uganda)*, Dec. 4, 2003.

<sup>78</sup> South Africa Statistics, *The people of South Africa population census 1996* (1996). Available at: <http://new.hst.org.za/indic/indic.php/11/?mode=data>; Health Systems Trust, *Rural/Urban Inequity*, <http://www.hst.org.za/hlink/equity/rura-urban.htm>, visited Feb. 12, 2004 (physicians); "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122 (nurses).

<sup>79</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122.

<sup>80</sup> See Joan Corkery, "Public Service Reforms and Their Impact on Health Sector Personnel in Uganda." In International Labour Office & World Health Organization, *Public service reforms and their impact on health sector personnel: Case studies on Cameroon, Colombia, Jordan, Philippines, Poland, Uganda* (2000), at 263. Available at: <http://www.ilo.org/public/english/dialogue/sector/papers/health/pub-serv6.pdf>.

<sup>81</sup> Health Systems Trust, *Rural/Urban Inequity*, <http://www.hst.org.za/hlink/equity/rura-urban.htm>. Accessed Feb. 12, 2004.

<sup>82</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," at 59 (unpublished draft) (2003).

<sup>83</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 9. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>84</sup> See "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 130.

<sup>85</sup> The number of health professionals needed, and so the degree of the shortage, depends in part on country-specific factors, such as the quality of health sector human resource management, health strategies, and the disease profile.

<sup>86</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 9, table 2. About 98% of physicians in the United States are non-federal physicians, meaning that they do not work for the federal government. Henry J. Kaiser Family Foundation, *State Health Facts Online, United States: Number of Nonfederal Physicians, 2002* (2002). Available at: <http://www.statehealthfacts.kff.org/cgi-bin/healthfacts.cgi?action=profile&area=United+States&category=Providers+%26+Service+Use&subcategory=Physicians&topic=Total+Nonfederal+Physicians>.

<sup>87</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 2.

<sup>88</sup> United Nations, *Regional Commissions Development Update: Economic Commission for Africa* (Nov. 2000). Available at: <http://www.un.org/Depts/rcnyo/newsletter/nl9/acteca.htm>.

<sup>89</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 26. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>. But see "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 124 (approximately three-quarters of new South African physicians who stated they intended to move abroad the year after a year of community service also stated their intention to subsequently return to South Africa).

<sup>90</sup> DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 24. Available at: [http://www.health-systemsrc.org/publications/reports/int\\_rec/int-rec-main.pdf](http://www.health-systemsrc.org/publications/reports/int_rec/int-rec-main.pdf).

<sup>91</sup> Uta Lehmann & David Sanders, "Human Resource Development." In Health Systems Trust, *South African Health Review 2002* (2003), at chap. 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>. The situation may be even worse. About 70% of medical school graduates in Ghana from 1995 had emigrated by 1999. Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 15. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>92</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 15. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>93</sup> "South Africa: Government Wakes up to Flight of Health Workers." *U.N. Integrated Regional Information Networks (IRIN)*, May 14, 2002. Available at: <http://www.irinnews.org/report.asp?ReportID=27765>.

<sup>94</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 122. Saudi Arabia and other Gulf States are also an important destination for South African health professionals. See *id.* at 127; James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 21. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>95</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at table 2.

- <sup>96</sup> David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.
- <sup>97</sup> Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.118.1.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.118.1.1&x=x.pdf).
- <sup>98</sup> See Lincoln Chen, *Harnessing the Power of Human Resources for Achieving the MDGs*, presented at the High Level Forum on the Health Millennium Development Goals, co-sponsored by the World Health Organization and World Bank, Geneva, January 9, 2004, at 2. Available at: [http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC\\_Geneva\\_Jan\\_9\\_2004.pdf](http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC_Geneva_Jan_9_2004.pdf).
- <sup>99</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 11.
- <sup>100</sup> See David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>; Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.118.1.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.118.1.1&x=x.pdf).
- <sup>101</sup> Barbara Stilwell et al., "Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges." *Human Resources for Health* (2003) 1(8), at 10. Available at: <http://www.human-resources-health.com/content/pdf/1478-4491-1-8.pdf>. The data comes from the United Kingdom's Nursing & Midwifery Council. The Council's statistical year runs from April 1 of one year to March 31 of the following year. Thus, data for 2000/2001 is for the year April 1, 2000-March 31, 2001. See United Kingdom Nursing & Midwifery Council, *NMC Statistics*, <http://www.nmc-uk.org/nmc/main/about/nmcStatistics.html>. Accessed June 14, 2004.
- <sup>102</sup> Abiodun Raufu, "Nigerian health authorities worry over exodus of doctors and nurses." *BMJ* (July 6, 2002) 325:65.
- <sup>103</sup> DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 8. Available at: [http://www.healthsystemsresource.org/publications/reports/int\\_rec/int-rec-main.pdf](http://www.healthsystemsresource.org/publications/reports/int_rec/int-rec-main.pdf).
- <sup>104</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 37. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>. The Philippines has been the single most important source of nurses for the United Kingdom, at least in the later years. *Id.*
- <sup>105</sup> National Council of State Boards of Nursing, Inc., *2000 Licensure and Examination Statistics* (2001), at table 10. Available at: [http://www.ncsbn.org/pdfs/2000lic\\_exam\\_statistics\\_report\\_on-line.pdf](http://www.ncsbn.org/pdfs/2000lic_exam_statistics_report_on-line.pdf).
- <sup>106</sup> National Council of State Boards of Nursing, Inc., *1999 Licensure Statistics On-Line* (c. 2000), at 43-48. Available at: [http://www.ncsbn.org/pdfs/1999lic\\_exam\\_statistics\\_report\\_on-line.pdf](http://www.ncsbn.org/pdfs/1999lic_exam_statistics_report_on-line.pdf).
- <sup>107</sup> Linda H. Aiken et al., "Trends in International Nurse Migration: The world's wealthy countries must be aware of how the 'pull' of nurses from developing countries affects global health." *Health Affairs* (May-June 2004) 29(3): 69-77. Available at: <http://content.healthaffairs.org/cgi/content/abstract/23/3/69>.
- <sup>108</sup> See DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 24-25. Available at: [http://www.dfidhealthrc.org/shared/publications/reports/int\\_rec/int-rec-main.pdf](http://www.dfidhealthrc.org/shared/publications/reports/int_rec/int-rec-main.pdf).
- <sup>109</sup> See "South Africa: Government Wakes to Flight of Health Workers." *U.N. Integrated Regional Information Networks (IRIN)*, May 16, 2002. Available at: <http://www.africaonline.com/site/Articles/1,3,47676.jsp>.
- <sup>110</sup> See "International Perspectives: Advancing Nursing in Zimbabwe." *International Nursing Review* (2001) 48(2): 74.
- <sup>111</sup> Abiodun Raufu, "Nigerian health authorities worry over exodus of doctors and nurses." *BMJ* (July 6, 2002) 325:65.
- <sup>112</sup> See "International Perspectives: Advancing Nursing in Zimbabwe." *International Nursing Review* (2001) 48(2): 74.
- <sup>113</sup> "The Brain Drain in Healthcare in Ghana: An Interview." *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264> (stating that Ghana has about 20,000 nurses 15 years ago, and about 10,500 nurses today).
- <sup>114</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 16. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>115</sup> "The Brain Drain in Healthcare in Ghana: An Interview." *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>; E-mail from Dr. Delanyo Dovlo, Ghana, June 8, 2004.
- <sup>116</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>117</sup> Tim Martineau, Peter Bundred & Karola Decker, "'Brain drain' of health professionals: from rhetoric to responsible action." *Health Policy* (2004) *In press*.
- <sup>118</sup> See "Swaziland: Nurses Seek Greener Pastures." *U.N. Integrated Regional Information Networks (IRIN)*, May 12, 2004.
- <sup>119</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 17. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>120</sup> See James Buchan, *Here to stay? International nurses in the UK* (2003), at 21. Available at: <http://www.rcn.org.uk/publications/pdf/heretostay-irns.pdf>.
- <sup>121</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 36-37. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.
- <sup>122</sup> South Africa Ministry of Health, *Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa* (Nov. 19, 2003), at 122. Available at: <http://www.gov.za/reports/2003/aidsplan/chap5.pdf>.
- <sup>123</sup> David R. Katerere & Lloyd Matowe, "Effect of Pharmacist Emigration on Pharmaceutical Services in Southern Africa." *American Journal of Health-System Pharmacy* (2003) 60:1169-1170, at 1169.
- <sup>124</sup> Ethelda Chikumbo, *[e-drug] Brain drain of pharmacists (cont'd)*, Oct. 21, 2003. Available at: <http://www.essentialdrugs.org/edrug/archive/200310/msg00077.php>.
- <sup>125</sup> "Ghana lost 12,365 Health Professionals 1993-2002." *Ghana News Agency*, Nov. 29, 2003. Available at: <http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=47527>.

<sup>126</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, Dec. 22, 2003.

<sup>127</sup> World Health Organization, *Human Resources for Health*, <http://www.who.int/hrh/en/>. Accessed March 5, 2004. See also World Health Organization, *Human resources for health: developing policy options for change: Discussion paper, Draft* (Nov. 2002), at 8. Available at: [http://www.who.int/hrh/documents/en/Developing\\_policy\\_options.pdf](http://www.who.int/hrh/documents/en/Developing_policy_options.pdf) (“The quality of health services, their effectiveness, efficiency, accessibility and viability depend in the final analysis on the performance of those who deliver the services”).

<sup>128</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 24. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>129</sup> USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 5. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>130</sup> *Id.*

<sup>131</sup> James Buchan, Tina Parkin & Julie Sochalski, International Nurse Mobility: Trends and Policy Implications (2003), at 48. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>132</sup> See David R. Katerere & Lloyd Matowe, “Effect of Pharmacist Emigration on Pharmaceutical Services in Southern Africa.” *American Journal of Health-System Pharmacy* (2003) 60:1169-1170, at 1169. The loss of pharmacists also deprives countries of a cadre with key management skills in the budgeting and rational use of medications. See *id.*

<sup>133</sup> See Barbara Stilwell et al., “Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges.” *Human Resources for Health* (Oct. 2003), at 5. Available at: <http://www.human-resources-health.com/content/pdf/1478-4491-1-8.pdf> (“Losing part of the professional mix in the health work-force may result in either an absence of some services or in professionals’ having to adapt their roles to deliver services commonly outside their scope of practice”).

<sup>134</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 24. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>135</sup> David Ndeti, *Recruitment of Consultant Psychiatrists from Low and Middle Income Countries* (Draft), at 2 (2004). The number of psychiatrists in sub-Saharan Africa is phenomenally low: “there is on average 1 psychiatrist per million in sub Saharan Africa and in some countries as little as 1 per 5 million.” *Id.*

<sup>136</sup> See Barbara Stilwell et al., “Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges.” *Human Resources for Health* (Oct. 2003), at 6. Available at: <http://www.human-resources-health.com/content/pdf/1478-4491-1-8.pdf>.

<sup>137</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 16. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>138</sup> Amy Hagopian, “The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy,” (2003) at 49 (unpublished draft).

<sup>139</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 9. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>140</sup> See “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>.

<sup>141</sup> *Id.*

<sup>142</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 9. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>143</sup> *Id.* at 24.

<sup>144</sup> Uta Lehmann & David Sanders, “Human Resource Development.” In Health Systems Trust, *2002 South African Health Review* (2003), at chapter 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>.

<sup>145</sup> See “South Africa asks Canada to stop stealing doctors away.” *CBC News*, Feb. 7, 2001. Available at: [http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr\\_docs010207](http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr_docs010207).

<sup>146</sup> See World Health Organization, African Region & World Bank, *Building Strategic Partnerships in Education and Health in Africa: Consultative Meeting on Improving Collaboration between Health Professionals, Governments and Other Stakeholders in Human Resources for Health Development, Addis Ababa, 29 January – 1 February 2002: Report on the Consultative Meeting* (April 2002), at 5. Available at: [http://www.afro.who.int/hrd/consultative\\_meeting\\_report.pdf](http://www.afro.who.int/hrd/consultative_meeting_report.pdf). See also World Bank Group, *Millennium Development Goals*, <http://www.developmentgoals.org>. Last updated Sept. 2003.

<sup>147</sup> Lincoln Chen, *Harnessing the Power of Human Resources for Achieving the MDGs*, presented at the High Level Forum on the Health Millennium Development Goals, co-sponsored by the World Health Organization and World Bank, Geneva, January 9, 2004, at 3. Available at: [http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC\\_Geneva\\_Jan\\_9\\_2004.pdf](http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC_Geneva_Jan_9_2004.pdf).

<sup>148</sup> Wim Van Lerberghe, Orvill Adams & Paulo Ferrinho, “Human Resources Impact Assessment,” editorial. 80 *Bulletin of the World Health Organization* (2002) 80(7): 525, at 525. Available at: [http://www.who.int/docstore/bulletin/pdf/2002/bul-7-E-2002/80\(7\)525.pdf](http://www.who.int/docstore/bulletin/pdf/2002/bul-7-E-2002/80(7)525.pdf).

<sup>149</sup> Briony Hale, “The Missing Medics in Botswana’s AIDS Battle.” *BBC News*, Nov. 23, 2003. Available at: <http://news.bbc.co.uk/2/hi/business/3280735.stm>.

<sup>150</sup> See Celia W. Dugger, “Botswana’s Brain Drain Cripples War on AIDS.” *New York Times*, Nov. 13, 2003, at A10.

<sup>151</sup> See Nicol Degli Innocenti & John Reed, “Facing up to Aids: South Africa plans to treat 1m patients, but is it as short of political will as it is of doctors?” *Financial Times* (Jan. 21, 2004), at A17. Scaling-up AIDS treatment to 24,420 people in Zambia would require the equivalent of 36 or 37 full-time pharmacists, representing more than 50% of Zambia’s current public sector pharmacist workforce of 68. Jenny Huddart, Joyce V. Lyons & Rebecca Furth, *HIV/AIDS Workforce Study (Zambia)* (Oct. 7, 2003), at 52.

<sup>152</sup> See Vasant Narasimhan et al., “Responding to the global human resources crisis.” *Lancet* (2004) 363: 1469-72, at 1469.

<sup>153</sup> World Health Organization press release, *TB workforce crisis a major obstacle to treatment success* (Oct. 10, 2003). Available at: <http://www.who.int/mediacentre/releases/2003/pr74/en/>.

- <sup>154</sup> Phyllida Brown, "The health service brain drain — what are the options for change?" *Immunization Focus* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).
- <sup>155</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," at 49 (unpublished draft) (2003).
- <sup>156</sup> See Phyllida Brown, "The health service brain drain — what are the options for change?" *Immunization Focus* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).
- <sup>157</sup> See Lincoln Chen, *Harnessing the Power of Human Resources for Achieving the MDGs*, presented at the High Level Forum on the Health Millennium Development Goals, co-sponsored by the World Health Organization and World Bank, Geneva, January 9, 2004, at 3. Available at: [http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC\\_Geneva\\_Jan\\_9\\_2004.pdf](http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC_Geneva_Jan_9_2004.pdf).
- <sup>158</sup> See World Bank, *2<sup>nd</sup> African Forum on Poverty Reduction Strategies, Group Discussion Summary, Theme III-D: Health and Education Policies for Poverty Reduction* (2001). Available at: <http://www.worldbank.org/wbi/attackingpoverty/activities/dakargd12summ.html>.
- <sup>159</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) & OXFAM (GB), *Report of a workshop at ICASA on Equity and the Expansion of Access to Treatment and Care for HIV/AIDS in Southern Africa, Satellite Session at the 13th ICASA Conference Nairobi, 23 September 2003* (c. 2003), at 4. Available at: <http://www.equinet africa.org/Resources/downloads/ICASAwshopreport.pdf>. See also *id.* at 26 ("Unless this is addressed there is a danger that the introduction of new services can only be at the cost of redeploying staff from existing services").
- <sup>160</sup> See Adam L. Kushner, Steven J. Mannion & Arturo P. Mucyo, "Secondary Crisis in African Health Care," letter. *Lancet* (May 1, 2004) 363: 1478. Of 38 laboratory technicians previously employed, only six remain. Most or all have gone to work on HIV/AIDS projects. *Id.*
- <sup>161</sup> See Uta Lehmann & David Sanders, "Human Resource Development." In Health Systems Trust, *2002 South African Health Review* (2003), at chapter 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>.
- <sup>162</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 19, 31. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>163</sup> See Tom de Castella, "Health Workers Struggle to Provide Care in Zimbabwe: Brain drain adds to woes of cash-strapped health-care system." *Lancet* (July 5, 2003) 362: 46-47, at 47. Available at: <http://pdf.thelancet.com/pdftdownload?uid=llan.362.9377.news.26355.1&x=x.pdf>.
- <sup>164</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 24. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>165</sup> See David Sanders & Wilma Meeus, *A critique on NEPAD's health sector plan of action* (August 2002), at 19. Available at: <http://www.spheru.ca/PDF%20Files/NEPAD%20report%20card%20project%20report.PDF>; Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 13, 15; E-mail from Vasant Narasimhan, McKinsey and Co., May 30, 2004.
- <sup>166</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 10. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>. The training costs of all foreign professionals (not just health professionals) who emigrate from Africa has been estimated at \$4 billion per year. "Brain drain reportedly costing \$4 billion a year." U.N. *Integrated Regional Information Networks (IRIN)*, April 30, 2002. Available at: <http://www.irinnews.org/report.asp?ReportID=27536>. African countries spend about the same amount, \$4 billion, on salaries of foreign experts to build or replace lost capacity and provide technical assistance. David Sanders & Wilma Meeus, *A critique on NEPAD's health sector plan of action* (August 2002), at 19. Available at: <http://www.spheru.ca/PDF%20Files/NEPAD%20report%20card%20project%20report.PDF>.
- <sup>167</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 130 (including \$97,000 estimate for cost of physician training); David Sanders & Wilma Meeus, *A critique on NEPAD's health sector plan of action* (August 2002), at 19. Available at: <http://www.spheru.ca/PDF%20Files/NEPAD%20report%20card%20project%20report.PDF> (reporting cost of undergraduate medical education in South Africa at \$61,500). The 600 South African doctors now registered in New Zealand are providing health care to New Zealanders at a cost of approximately \$37 million to the South African government. Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).
- <sup>168</sup> David Sanders & Wilma Meeus, *A critique on NEPAD's health sector plan of action* (August 2002), at 19. Available at: <http://www.spheru.ca/PDF%20Files/NEPAD%20report%20card%20project%20report.PDF>.
- <sup>169</sup> William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 15. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt>. The United States has approximately 130,000 foreign physicians, meaning that the United States has saved approximately \$26 billion in training costs. David Sanders & Wilma Meeus, *A critique on NEPAD's health sector plan of action* (August 2002), at 19. Available at: <http://www.spheru.ca/PDF%20Files/NEPAD%20report%20card%20project%20report.PDF>.
- <sup>170</sup> The Commission on Macroeconomics and Health has estimated that massively scaling up essential health interventions could provide "economic benefits of at least \$360 billion per year during 2015–2020, and possibly much larger." Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 108. Available at: [http://www3.who.int/whosis/cmh/cmh\\_report/report.cfm?path=cmh,cmh\\_report&language=english](http://www3.who.int/whosis/cmh/cmh_report/report.cfm?path=cmh,cmh_report&language=english).
- <sup>171</sup> David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.
- <sup>172</sup> See Tikki Pang, Mary Ann Lansang & Andy Haines, "Brain drain and health professionals." *BMJ* (March 2, 2002) 324: 499-500. Available at: <http://bmj.bmjournals.com/cgi/content/full/324/7336/499>.
- <sup>173</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 26. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.

## IV. GUIDING PRINCIPLES FOR ACTION

The plan of action offered below is guided by the following 13 principles, which reflect human rights law and pragmatic concerns.

### **1. The primary response to brain drain must be to redress second-class health systems that reflect widespread violations of the right to health and other rights.**

The primary response to brain drain must focus on the push factors that are driving many African health professionals from their home countries. They leave because they refuse to practice in a second-class health system, where they practice in unsafe conditions, where they cannot begin to meet the needs of their patients and where their salaries may not enable them to meet their own needs. In other words, they want a good job, which entails living and practicing in an environment where their rights and their patients' rights will be respected. An attempt to redress brain drain without focusing on the second-class nature of health systems would not only be responding with a blind eye to widespread and systematic human rights violations, but would also require a level of coercion that seems bound to fail. Health professionals should decide to stay because they can function effectively and safely.

### **2. The response must include significantly increased funding to the health sector from domestic and international sources, including debt relief.**

As a matter of human rights law, equity, and pragmatics, health systems in Africa must receive far greater resources, which should come from more significant national health spending, increased assistance from international donors, and greater debt relief. Those setting funding priorities must not wait for economies to grow before making these health system investments. Investments in health will promote that economic growth.

#### *Domestic resources*

Certain relatively low-cost steps, such as improved human resources management policies, are both possible and imperative. The more efficient use of funds currently available would also help improve health systems. However, other improvements to health systems will require significant increases in health spending.

At present, sub-Saharan Africa's health systems are dramatically under-funded. The US State Department reports that "overall public health spending is less than US\$10 per capita for most African countries."<sup>174</sup> The Commission on Macroeconomics and Health, in its report to WHO, stated that the unweighted average of public health spending in 1997 for least developed countries (LDCs) was \$6 per person. Including private spending and \$2.29 per person in donor spending, these 48 LDCs, most of which are in sub-Saharan Africa, spent only about \$11 per person on health. Total health spending in other low income countries was \$23 per person in 1997.

By contrast, the Commission found that a minimum health care package costs \$34, excluding the cost of such categories of health spending as tertiary care, emergency care, and family planning beyond the first year after birth. Other recent estimates of minimum health spending requirements are \$45 (excluding initial capital costs for physical infrastructure) and \$36 (for least developed countries).<sup>175</sup> Significant increases in both domestic health spending and international assistance are required. The Commission on Macroeconomics and Health urges low-income countries to increase their health spending by \$35 billion by 2007 and \$63 billion by 2015 in order to meet minimum health needs.<sup>176</sup>

State obligations under the International Covenant on Economic, Social and Cultural Rights (ICESCR) require increased health spending. The right to health is guaranteed by article 12 of the ICESCR, which recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."<sup>177</sup> The treaty requires states that have ratified it to "take steps . . . to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the" ICESCR.<sup>178</sup> As explained by the Committee on Economic, Social and Cultural Rights, which monitors compliance with the ICESCR, the question of whether a state is spending the "maximum of its available resources" is, essentially, whether the state uses "every effort . . . to use all available resources . . . in order to satisfy, as a matter of priority," its obligations. This explanation of the maximum resource requirement indicates the high level of scrutiny required of a state's resource allocation.<sup>179</sup>

In April 2001 at a summit in Abuja, Nigeria, the heads of state and government of the members of the Organization of African Unity (now the African Union) pledged to devote 15% of their annual budgets to improving the health sector.<sup>180</sup> African countries should rapidly increase their health sector spending to at least 15% of their government budgets, in line with the Abuja Declaration. This may require hard choices; budgets have other priority areas as well, such as education. The budgets must be formed, however, with the recognition that health is a top priority.

### *International resources*

African countries will require significant external funding in order to create health systems that enable health professionals to do their jobs and meet their people's right to the highest attainable standard of health. The Commission on Macroeconomics and Health urges donors to contribute an additional \$22 billion by 2007 and \$31 billion by 2015 to the health sectors of low-income countries in order to deliver a minimum package of essential health care interventions.<sup>181</sup> In October 1970, the UN General Assembly set an official development assistance target of 0.7% of donor GNP.<sup>182</sup> This target has since been frequently reaffirmed, including in the Declaration of Commitment on HIV/AIDS, adopted at the UN General Assembly Special Session on HIV/AIDS.<sup>183</sup> In 2003, official development assistance was \$68.5 billion, or 0.25% of gross national income, little more than one-third the standard. Official development assistance in 2003 from the United States was \$15.8 billion, or 0.14% of gross national income, only one-fifth of the standard.<sup>184</sup>

### *Debt relief*

Many sub-Saharan African countries have had their health and other public sector spending constrained by large external debts, primarily to Western nations and international financial institutions. Funds to service these debts have consumed large portions of government budgets in many African nations, reducing the money available for health and other social spending.<sup>185</sup> The situation has improved moderately since the Heavily Indebted Poor Country (HIPC) debt relief initiative in 1996, and more recently, the Enhanced HIPC initiative in 1999. Much more extensive debt relief is required, however, and more countries must be included in a new debt relief initiative.

Even after the Enhanced HIPC Initiative, many sub-Saharan nations are still paying large sums to wealthy creditors. All told, sub-Saharan nations paid \$15.2 billion in debt service to wealthy nations in 1998.<sup>186</sup> After falling to \$12.3 billion in 2000, in 2001 \$14.5 billion in

debt service flowed from sub-Saharan Africa to wealthy multilateral, bilateral, and private creditors.<sup>187</sup> Malawi paid \$95 million in debt service in 2001,<sup>188</sup> and in 2000, Zambia paid \$329 million in debt service.<sup>189</sup> Many sub-Saharan nations continue to spend more on debt service than on health. For example, in 1999/2000, Tanzania spent more than two-and-a-half times as much money financing its debt as it spent financing health care.<sup>190</sup> Zambia's debt service in 1999 was nearly four times its health spending the previous year,<sup>191</sup> and in 2000, Nigeria paid \$1.8 billion in debt service, but spent less than \$200 million on health.<sup>192</sup> In 2001, Nigeria paid about \$2.1 billion in debt service.<sup>193</sup> The fourteen countries that have been designated focus countries as part of the \$15 billion, 5-year US bilateral AIDS initiative collectively paid \$9.1 billion in debt service in 2001, or triple their expected average annual receipts in AIDS funding from the United States.<sup>194</sup>

Much deeper debt relief, which may be connected to a commitment to spend the savings on health, education, and other social sectors, is therefore a critical way of increasing health sector funding for African and other developing countries.

### *Investments in health promote economic development*

The WHO Commission on Macroeconomics and Health has demonstrated the tremendous positive impact that substantially increased investments in health would have on economic development. Using the uncontroversial points that only people who are alive can contribute to economic growth, and that people who are healthy contribute to the economy more than people who are ill, the Commission calculated that if the donors and low-income countries make the investments in health that it recommended, the economic benefits to low-income countries would be quite substantial: "The direct economic benefit . . . would be \$186 billion per year, and plausibly several times that. Economic growth would also accelerate, [which] would help to break the poverty trap that has blocked economic growth in high-mortality low-income countries. This would add tens or hundreds of billions of dollars more per year through increased per capita incomes."<sup>195</sup> Indeed, the Commission stated, "Combining the valuation of lives saved plus faster economic growth suggests economic benefits of at least \$360 billion per year during 2015–2020, and possibly much larger."<sup>196</sup> Governments must view investments in health as central to their economic development strategies, and international financial institutions must ensure that promoting health figures prominently in their strategies.

### **3. Low-income countries that are the source of health professionals who migrate to wealthy nations should be reimbursed by those nations.**<sup>197</sup>

The flow of health professionals from low- to high-income countries has been referred to as “reverse foreign aid.”<sup>198</sup> Rather than high-income countries transferring resources to help improve health systems in low-income countries, the poorer countries are transferring resources – health professionals trained with public dollars – to richer countries. Because of the expense of training health professionals, this represents a significant economic loss to the health and education sectors of poor countries.<sup>199</sup> People’s health in low-income countries suffers as a result. Meanwhile, migration significantly benefits wealthy countries by saving them training costs and helping them meet their health needs, especially those of underserved rural and inner-city populations. Based on the demands of equity, wealthy nations should not accept this benefit without reimbursing the countries of origin for their loss.

One critic of reimbursement points out that Ethiopians, the subject of his discussion, mostly come to the United States of their own initiative, and have not been recruited.<sup>200</sup> The distinction has merit. As will be explained below, recruitment of health professionals from countries experiencing severe shortages violates international law. Reimbursement could be considered a form of redress.

However, the justification for reimbursement goes beyond remedying the wrong of recruitment. Whether or not the health professional is recruited, the high-income country benefits, the low-income country is harmed, and the equity demands remain. Moreover, even absent recruitment, the failure of many high-income countries to meet their own needs for health professionals, their promotion of economic policies that have limited the ability of low-income countries to invest in their health systems, and insufficient foreign assistance combine to place partial responsibility on wealthy nations for the migration even of health professionals who leave through their own initiative.

Some observers dismiss the notion of reimbursement, pointing out that governments are at fault for brain drain. Critics say that health professionals are leaving because of human rights violations and corruption, and the governments should not be rewarded for their own poor behavior.<sup>201</sup> Reimbursement, however, is not aimed at rewarding governments. Its purpose is to benefit the people by improving their health. Reimbursement strategies must reflect this goal.

### **4. Solutions to brain drain must be locally determined, with participation from representatives of**

### **poor and rural communities, health care workers, and civil society.**

While there are many ways to address brain drain, the precise mix of priorities and details of the strategies will vary by country, within country, and even by health facility. Countries and districts should have the flexibility through foreign assistance to effectively recruit and retain health professionals, as well as to meet their other health needs. Placing significant authority in local hands will also help assure local buy-in to the policies and create a local stake in their success. It may even be appropriate to devolve some decision-making authority to the level of individual health facilities.

The decision-making should be participatory. Health professionals must participate in this decision-making to ensure that it appropriately reflects their needs. Representatives of underserved communities and NGOs must also participate in these decisions so that the priorities and policies will not only help keep health professionals in low-income countries, but also will help meet the needs of these communities. NGO participation is also important as NGOs may have an important role overseeing the implementation of the strategies decided upon.

### **5. Foreign assistance must be structured to promote and enable sound policies on human resources for health.**

Foreign assistance provided to support human resources for health should be guided by the principle of locally-determined solutions. This might involve a “menu” approach to a foreign assistance program, making funds available for the numerous uses that could help reduce the emigration of health professionals and could support health workers who practice in rural and other underserved areas. It would then be for local processes, as described in the preceding principle, to determine priorities for the funding and its nature, such as how much salaries for health care workers should increase. There may be exceptions to this rule, perhaps because a national process is not representative and some voices are not heard. And it may be appropriate to designate a certain proportion to meeting the needs of rural health workers, whose needs tend to be particularly great and yet unmet by the political process.

For foreign assistance to address human resources for health, at least three common donor practices must change. First, assistance must be provided for building health systems, including human resources and basic primary health care, not only for disease-specific programs, as donors tend to prefer. When donors do provide assistance to disease-specific programs, they must do so with recognition of the impact that assistance will have on the

health system as a whole. Assistance for health systems should include support not only for clinical skills, but also such areas as health system planning and management, logistical support, and information systems.

Second, donors must be more willing to fund recurrent costs, including salaries and benefits. Donors traditionally view these as costs to be borne by the low-income country government, and may even have regulations or laws that prohibit the use of assistance to increase salaries of government sector employees.<sup>202</sup> Yet in many countries, a key intervention to reducing brain drain will be increasing salaries for health professionals. Other forms of recurrent spending, such as operating budgets for health training institutions or health facilities, might also prove important. And third, donors must shift some of the funds they provide for in-service training to pre-service training and direct salary support.

The flow of aid from foreign donors should be predictable so that recipients can effectively incorporate the money into their planning processes. Also, donors must ensure that their assistance supplements, rather than displaces, the domestic budget for the health ministry (or for funds for pre-service training, possibly the education ministry).

## **6. Brain drain response must address the unequal distribution of health professionals within countries, including particularly severe shortages in rural areas.**

The response to brain drain cannot be separated from broader efforts to address inequities within source countries, especially with respect to the dearth of health professionals in many rural areas. In part, this is simply common sense. The main problem with brain drain is that it causes a shortage of health professionals in many African countries. It would be anomalous to respond to the shortages caused by brain drain at a nationwide level – where there might be, for example, 10 physicians per 100,000 population – while ignoring the tremendous shortages of health professionals in certain areas of the country, where there might be only one physician per 100,000 population. Further, because vacancies in urban areas tend to be filled by health personnel from rural areas, the people who live in the most rural areas will be most affected by brain drain, even when the health personnel who emigrate are from urban areas.<sup>203</sup>

The need to address internal inequities is also required by practical considerations and human rights law. Policies that a country implements in response to brain drain will often affect the internal distribution of health personnel, for better or worse. Human rights law – along with basic principles of equity – requires that the policies be implemented in ways that will help equalize the internal distribution of health personnel. Human rights law

strongly favors measures that protect the poor and other vulnerable populations. Thus, a rights-based response to brain drain will take special care to achieve minimum standards for all. This requires addressing the most severe shortage of health professionals within a country to ensure that vulnerable and socially disadvantaged populations have access to trained health personnel.

One example of the connection between the response to brain drain and the internal distribution of health personnel is the determination of which health facilities receive priority in investments in medicines, protective gear, equipment, facility rehabilitation, and other forms of health infrastructure. These investments, an important part of the response to brain drain, could exacerbate internal inequities if urban centers are prioritized or help ease the inequities if rural clinics and hospitals are prioritized. If a country institutes a policy to increase salaries for health workers, or if donors fund such a policy, policymakers will have to decide whether or not to include in that system special incentives for health workers who choose to work in rural or other underserved areas. If curricula in health training institutions are revised to be more consistent with the actual conditions that graduates will face when they begin their practice, how much will conditions in rural areas be taken into account in the revised curricula? For these and other reasons, the internal distribution of health professionals must be factored into the response to brain drain.

## **7. The rights of health professionals and their desire to seek a better life must be respected within the constraints and demands of the global public health crisis.**

Health professionals in Africa, like everyone, have a right to seek a better life for themselves and their families.<sup>204</sup> This principle is widely recognized. For example, the Commonwealth Code of Practice for International Recruitment of Health Workers states, “The Code is sensitive to . . . the migratory rights of individual health professionals. The Code does not propose that governments should limit or hinder the freedom of individuals to choose where they wish to live and work.”<sup>205</sup> Literature on brain drain sounds a similar theme, well represented by the following quotation from an independent report funded by WHO, the International Council of Nurses, and the Royal College of Nursing in the United Kingdom: “Any policy response should be based on the recognition that every individual should have the right and freedom to move to improve their life and the contribution they can make to other lives.”<sup>206</sup>

The human rights of health professionals and their families are at stake. Along with the right “to the continuous improvement of living conditions,”<sup>207</sup> migration may be necessary for health professionals to work in a

safe environment, and to live in a democratic country that respects their civil, political, and other rights. Health professionals whose wages so meager that they are unable to feed their families or send their children to school may view migration as a way to secure a decent standard of living or education for all their children.<sup>208</sup> Migration may well enable these health professionals and their families to enjoy their human rights more fully than they would back home.

Yet the health consequences of brain drain are enormous. The rights of health professionals come into conflict with the right to the highest attainable standard of health of people in their home countries. The right to health is served by health professionals staying put, even if their own rights may be best served through emigration. This tension requires a response that recognizes everyone's rights, and where the conflict arises, that strikes a just balance. This balance will be best achieved when policies that make it more difficult for health professionals to emigrate, such as restrictions on recruitment, are implemented in the context of improving working conditions, fairer salaries, and other advances in health professionals' ability to enjoy their rights. Health professionals who remain in their home countries should be able to enjoy their human rights.

#### **8. Countries must adhere to ethical recruitment principles, including not recruiting from developing countries without an agreement.**

An emerging consensus is forming that developed countries should not recruit health professionals from developing countries absent an agreement.<sup>209</sup> A voluntary code of practice from 2001 that is meant to govern the behavior of the United Kingdom's National Health Service (NHS) bans recruitment from 154 developing countries, unless the developing country's government has specifically consented to recruitment.<sup>210</sup> The Commonwealth Code of Practice "discourage[s] the targeted recruitment of health workers from countries which are themselves experiencing shortages."<sup>211</sup> The World Rural Health Conference adopted the Melbourne Manifesto in 2002. The Manifesto urges that any country planning to recruit health professionals from abroad should develop a Memorandum of Understanding (MOU) with the country from which it intends to recruit, and only recruit when and how the MOU permits. The Manifesto "aims to . . . discourage activities which could harm any country's health care system."<sup>212</sup> The American Nurses Association "condemns the practice of recruiting nurses from countries with their own nursing shortage."<sup>213</sup>

Equity and human rights concerns militate against wealthy countries recruiting health professionals from poorer nations, absent agreement. While many wealthy nations have shortages of health professionals, these

shortages pale in comparison to those of many sub-Saharan nations. Wealthy nations' recruitment of health professionals from poor countries with health professional shortages themselves, shortages that are more harmful than those in high-income countries, is inequitable. Further, wealthy nations frequently have better infrastructure to address these shortages, such as more health training institutions, schools that are better-equipped and staffed than those in resource-poor countries. Recruitment from countries struggling to meet their own health needs also wrongfully interferes with the right to health of the people of those low-income countries.

Since there may be cases when recruitment could be mutually beneficial, such as short-term transfer of health personnel from low- to high-income countries where they can gain useful skills for their practice back home, recruitment founded on agreement between the source and receiving countries should be permitted.

#### **9. High-income countries must address their own inadequate production and retention of health professionals.**

The United States and other wealthy countries are facing serious and deepening shortages of trained health workers, especially in rural areas. Inadequate production and poor working conditions are among the reasons for these shortages. The relative dearth of health professionals in wealthy countries is driving the recruitment of foreign health professionals to help fill the gap. It also ensures availability of positions for health professionals from abroad who seek positions in the health system of wealthy nations. High-income countries must address these shortages. Brain drain is likely to persist so long as significant shortages of health professionals in high-income countries remain. Even if ethical recruitment and investments in African health systems were to significantly reduce brain drain, failure to address these shortages would have the unjust result of rural dwellers and inner-city residents in high-income countries, for whom foreign health professionals are most important, bearing the brunt of the shortages.

#### **10. Measures to promote macroeconomic policy aims must be consistent with human rights.**

A central goal of finance ministries and international financial institutions such as the International Monetary Fund (IMF) is to encourage growth, an important reason being that, the IMF reports, "economic growth is the most significant single factor that contributes to poverty reduction."<sup>214</sup> A significant component of efforts to promote growth is achieving a stable macroeconomic environment, including low fiscal deficits, low inflation, and a stable currency exchange rate. A stable macroeconomic environment and the growth it is meant to

encourage are important aims. However, these policies can have damaging effects. The policies tend to include explicit limits on overall government expenditure, which in turn lead to national government-determined ceilings on spending for different sectors, including the health sector. The policies may also result in limitations on the public sector health personnel wage bill, which may restrict pay available to public sector health professionals or result in a hiring freeze.

These ceilings potentially limit funds available to the health sector (countries might not have chosen or been able to spend more than the ceiling level even in the absence of any ceiling). This can harm efforts to recruit and retain health professionals, thus contributing to their shortage, with the attendant negative impact on health. The macroeconomic policies can therefore interfere with states' efforts to meet their right to health obligations. The policies also artificially place certain resources out of reach of the states, preventing them from spending "the maximum of its available resources, with a view to achieving progressively the full realization of the" right to the highest attainable standard of health.

It is possible that macroeconomic effects of a country spending substantially more than an overall budget ceiling permits to allow increased health spending would be of such a nature that the spending would end up harming people's human rights more than it would promote them. The same applies to other social sectors, such as education. These limitations should be permitted only if it can be clearly demonstrated that the macroeconomic effects of the social spending beyond the ceilings would damage human rights more than the increased spending would advance them. Given the clear harm that health sector ceilings cause to the right to health, there must be a strong presumption against the justifiability of policies that limit overall spending, including social sectors, or directly limiting social sector spending. Such limitations could only be justified if every effort is made to find if alternative methods are exhausted.<sup>215</sup>

### **11. Along with increasing retention of skilled health workers, more health professionals must be recruited and trained.**

Addressing brain drain requires retaining health care workers, but given the severity of the shortage, it is not

enough that low-income countries retain current health care workers. It is critical that large numbers of new health professionals be trained. Therefore, the response to brain drain must include measures to increase training capacity of medical, nursing, and other health training institutions. Low-income countries must also provide training to sufficient numbers of support staff, such as security guards and administrative workers.

### **12. Capacity-building for health sector human resources management should be a priority.**

High priority should be given to enhancing national capacity for human resources management in the health sector. Ensuring that those involved in management have the skills, tools, motivation, time, and other resources they require to perform their work is necessary (though not sufficient) to create an environment in which health professionals can be satisfied with their work. Good management is necessary to develop, implement, and enforce a rational salary structure, policies to promote more equal distribution of health staff, clear and appropriate job descriptions, the ability to respond to health worker feedback, timely payment to health workers, and more. Solid human resources for health management will help ensure that foreign assistance is being invested in a sound policy environment, making that assistance more effective.

### **13. Members of the African health professional diaspora can make an important contribution to health care in Africa.**

For countries that have suffered significantly from brain drain, the numbers of health professionals abroad can equal – or even exceed – those in the country. They therefore have the potential to substantially affect the health services in their home countries. Networks of health professionals, such as the Ethiopian North American Health Professionals and the Association of Nigerian Physicians in America, and organizations in wealthy nations, such as Africa's Brain Gain, Inc., have the important goal to support health care in Africa.<sup>216</sup> Their activities to do so should be encouraged and supported.

## NOTES

- <sup>174</sup> U.S. State Department, *Fact Sheet: UNAIDS Tracks Global Impact of HIV/AIDS*, July 2, 2002. Available at: <http://usinfo.state.gov/topical/global/hiv/02070203.htm>. "In sub-Saharan Africa, the annual direct medical costs of AIDS (excluding antiretroviral therapy) are estimated at US\$30 per capita." *Id.*
- <sup>175</sup> See Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 54-57. Available at: <http://www.cid.harvard.edu/cidcmh/CMHReport.pdf>.
- <sup>176</sup> Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 11. Available at: [http://www3.who.int/whosis/cmh/cmh\\_report/report.cfm?path=cmh,cmh\\_report&language=english](http://www3.who.int/whosis/cmh/cmh_report/report.cfm?path=cmh,cmh_report&language=english).
- <sup>177</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force Jan. 3, 1976, at art. 12.
- <sup>178</sup> *Id.* at art. 2(1).
- <sup>179</sup> The resources in question are not limited to economic resources. An assessment by one commentator suggests that the resources to be considered are financial, natural, human, technological, and information. See Robert E. Robertson, "Measuring State Compliance with the Obligation to Devote the 'Maximum Available Resources' to Realizing Economic, Social, and Cultural Rights," *Human Rights Quarterly* (1994) 16: 693-714.
- <sup>180</sup> See *Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases*, Organization of African Unity summit, adopted April 27, 2001, Abuja, Nigeria, at para. 26. Available at: <http://www.uneca.org/adf2000/Abuja%20Declaration.htm>.
- <sup>181</sup> Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 11. Available at: [http://www3.who.int/whosis/cmh/cmh\\_report/report.cfm?path=cmh,cmh\\_report&language=english](http://www3.who.int/whosis/cmh/cmh_report/report.cfm?path=cmh,cmh_report&language=english). The report stated that current official development assistance for health was about \$6 billion. *Id.* With increased spending on HIV/AIDS and, through the Global Fund to Fight AIDS, Tuberculosis and Malaria, increased spending for tuberculosis and malaria, development assistance for health likely now exceeds \$6 billion by perhaps several billion dollars.
- <sup>182</sup> The General Assembly unanimously adopted Resolution 2626 on October 24, 1970. Paragraph 43 set the 0.7% GNP target. See Development Research and Policy Analysis Division, United Nations Economic and Social Commission for Asia and the Pacific, *Economic and Social Survey of Asia and the Pacific, 2001*, 2001, at 236, n. 1. Available at: [http://www.unescap.org/drrpad/publication/survey2001/chap7\\_2.pdf](http://www.unescap.org/drrpad/publication/survey2001/chap7_2.pdf).
- <sup>183</sup> See *Declaration of Commitment on HIV/AIDS*, United Nations General Assembly Special Session on HIV/AIDS (UNGASS), adopted June 27, 2001, at para. 83. Available at: <http://www.un.org/ga/aids/coverage/FinalDeclarationHIVAIDS.html>.
- <sup>184</sup> See Organisation for Economic Cooperation and Development, *Modest Increase in Development Aid in 2003* (April 16, 2004). Available at: [http://www.oecd.org/document/22/0,2340,en\\_2649\\_37413\\_31504022\\_1\\_1\\_37413,00.html](http://www.oecd.org/document/22/0,2340,en_2649_37413_31504022_1_1_37413,00.html).
- <sup>185</sup> The funds to service debt, known as debt service, are the interest and portion of the principle that are paid over a certain time period.
- <sup>186</sup> See Kwesi Owusu, John Garrett & Stuart Croft, *Eye of the Needle: The Africa Debt Report*, November 2000. Available at: <http://www.jubilee2000uk.org/analysis/reports/needle.htm>.
- <sup>187</sup> See World Bank, *Global Development Finance 2002: Financing the Poorest Countries*, 2002, at 200. Available at: <http://www.worldbank.org/prospects/gdf2002/vol1-pdf/ssa.pdf>.
- <sup>188</sup> See World Bank, *Malawi at a glance*, Sept. 23, 2002. Available at: [http://www.worldbank.org/data/countrydata/aag/mwi\\_aag.pdf](http://www.worldbank.org/data/countrydata/aag/mwi_aag.pdf).
- <sup>189</sup> See World Bank, *Zambia at a glance*, Sept. 23, 2002. Available at: [http://www.worldbank.org/data/countrydata/aag/zmb\\_aag.pdf](http://www.worldbank.org/data/countrydata/aag/zmb_aag.pdf).
- <sup>190</sup> See Jubilee 2000, *Jubilee Research: Tanzania*, 2001. Available at: [http://www.jubilee2000uk.org/databank/profiles/Tanzania\\_2001.htm](http://www.jubilee2000uk.org/databank/profiles/Tanzania_2001.htm).
- <sup>191</sup> See Jubilee 2000, *Jubilee Research: Zambia*, 2001. Available at: [http://www.jubilee2000uk.org/databank/profiles/Zambia\\_2001.htm](http://www.jubilee2000uk.org/databank/profiles/Zambia_2001.htm).
- <sup>192</sup> See presentation by Dr. Ibrahim Atta, moderator of Nigeria's Civil Society Consultative Group on HIV/AIDS, at conference on The Second Wave of the HIV/AIDS Pandemic: China, India, Russia, Ethiopia, Nigeria (hosted by Center for Strategic & International Studies), Oct. 3-4, 2002, Washington, DC, at 33. Available at: <http://www.csis.org/africa/HIVAIDS/atta.pdf>. Nigeria is not included in the HIPC Initiative.
- <sup>193</sup> See "Nigeria; Government Fiscal Operations in N221.1bn Deficit." *Africa News*, July 17, 2002.
- <sup>194</sup> See Jubilee USA Network, *Debt Relief Increases Impact of US Efforts to Fight HIV/AIDS* (April 2003). Available at: <http://www.jubileeusa.org/background/impact.html>.
- <sup>195</sup> Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 12-13. Available at: [http://www3.who.int/whosis/cmh/cmh\\_report/report.cfm?path=cmh,cmh\\_report&language=english](http://www3.who.int/whosis/cmh/cmh_report/report.cfm?path=cmh,cmh_report&language=english).
- <sup>196</sup> *Id.* at 108.
- <sup>197</sup> Another term often used to refer to this concept is "compensation."
- <sup>198</sup> See, e.g., William McArthur, *The Doctor Shortage (Part I)* (June 1999). Available at: [http://oldfraser.lexi.net/publications/forum/1999/06/06\\_doctor\\_shortage\\_part1.html](http://oldfraser.lexi.net/publications/forum/1999/06/06_doctor_shortage_part1.html).
- <sup>199</sup> Government funding for health training institutions often comes from the education ministry. E-mail from Vasant Narasimhan, McKinsey and Co., June 8, 2004.
- <sup>200</sup> See David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliott School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.
- <sup>201</sup> The head of the Ghana Medical Association, Dr. Jacob Plange-Rhule, puts forward another argument against reimbursement. In Dr. Plange-Rhule's words, "People's health is not assured by money. Experienced health professionals, who will deliver the service, assure it." "The Brain Drain in Healthcare in Ghana: An Interview." *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>. The high income country, however, would not simply send back money to the low-income country. It would send money back for specific health-related purposes that would improve health, likely by contributing to building the health workforce.
- <sup>202</sup> See US Agency for International Development, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (2003), at 16. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>203</sup> See Tim Martineau, Peter Bundred & Karola Decker, “Brain drain’ of health professionals: from rhetoric to responsible action.” *Health Policy* (2004) *In press*.

<sup>204</sup> The International Covenant on Economic, Social and Cultural Rights (ICESCR) recognizes the right of everyone “to the continuous improvement of living conditions. . . .” International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 11. Moreover, to a large extent the point of human rights is to create the conditions whereby people can seek to achieve their conception of the good – or put more prosaically, to seek a better life, whatever they consider that better life to be.

<sup>205</sup> Commonwealth Secretariat, *The Commonwealth Code of Practice for International Recruitment of Health Workers* (May 2003), at para. 4. Available at: <http://www.commedas.org/files/COP/COP.pdf>.

<sup>206</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 9. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>207</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 11.

<sup>208</sup> See *id.* at arts. 11 (adequate standard of living), 13 (education).

<sup>209</sup> Ethical recruitment principles extend far beyond which countries recruitment occurs from, and include such elements as ensuring recruited health professionals have safe working conditions and receive equal pay for equal work compared to other health professionals, transparency in the recruitment process. See International Council of Nurses, *Ethical Nurse Recruitment* (2001). Available at: <http://www.icn.ch/psrecruit01.htm>; *A Code of Practice for the International Recruitment of Health Professionals: The Melbourne Manifesto*. Adopted at 5th WONCA World Rural Health Conference Melbourne, Australia (May 3, 2002), at 1(b)(ii). Available at: [http://www.globalfamilydoctor.com/aboutWonca/working\\_groups/rural\\_training/melbourne\\_manifesto.htm](http://www.globalfamilydoctor.com/aboutWonca/working_groups/rural_training/melbourne_manifesto.htm); United Kingdom Department of Health, *Code of Practice for NHS employers involved in the international recruitment of healthcare professionals* (2001). Available at: <http://www.dh.gov.uk/assetRoot/04/03/46/51/04034651.pdf>.

<sup>210</sup> See “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” *In Organisation*

for Economic Co-operation and Development, *Trends in International Migration* (2003), at 135, 138. Specifically, the code of practice prohibits “NHS advertising in developing countries unless that country has specifically invited the UK to undertake a recruitment programme.” United Kingdom Department of Health, *code of practice for NHS employers involved in the international recruitment of healthcare professionals* (2001), at 10. Available at: <http://www.dh.gov.uk/assetRoot/04/03/46/51/04034651.pdf>. The code also discourages advertising in developed countries that “have indicated that they do not want the UK to advertise for healthcare professionals, and that . . . similarly take steps to avoid recruiting from the UK.” *Id.* The list of developing countries to which the code refers is available through <http://www.dh.gov.uk/assetRoot/04/03/46/79/04034679.pdf>.

<sup>211</sup> *Commonwealth Code of Practice for the International Recruitment of Health Workers*. Adopted at meeting of Commonwealth Health Ministers, Geneva, Switzerland (May 18, 2003), at 8. Available at: [http://www.thecommonwealth.org/shared\\_asp\\_files/uploadedfiles/{7BDD970B-53AE-441D-81DB-1B64C37E992A}\\_CommonwealthCode-ofPractice.pdf](http://www.thecommonwealth.org/shared_asp_files/uploadedfiles/{7BDD970B-53AE-441D-81DB-1B64C37E992A}_CommonwealthCode-ofPractice.pdf).

<sup>212</sup> *A Code of Practice for the International Recruitment of Health Professionals: The Melbourne Manifesto*. Adopted at 5th WONCA World Rural Health Conference Melbourne, Australia (May 3, 2002), at 1(b)(ii). Available at: [http://www.globalfamilydoctor.com/about-Wonca/working\\_groups/rural\\_training/melbourne\\_manifesto.htm](http://www.globalfamilydoctor.com/about-Wonca/working_groups/rural_training/melbourne_manifesto.htm). Conference participants included doctors, nurses, pharmacists, and indigenous and other health professionals.

<sup>213</sup> American Nurses Association, *Immigration and the Nursing Workforce*, <http://nursingworld.org/gova/federal/legis/107/immigr.htm>. Accessed March 23, 2004.

<sup>214</sup> International Monetary Fund, Fiscal Affairs and Policy Development and Review Departments, *Social Policy Issues in IMF-Supported Programs: Follow-up on the 1995 World Summit for Social Development* (March 16, 2000), at para. 17.

<sup>215</sup> This principle applies to budget ceilings, limits on civil servant spending, and other policies driven by macroeconomic concerns that limit social sector spending.

<sup>216</sup> The websites for these organizations are: <http://www.enahpa.org> (Ethiopian North American Health Professionals), <http://www.anpa.org> (Association of Nigerian Physicians in America), and <http://www.africabraingain.org> (Africa’s Brain Gain, Inc.). The website for an organization for South Africans, the South African Network of Skills Abroad, is <http://sansa.nrf.ac.za>.

# V. PLAN OF ACTION: RESPONDING TO BRAIN DRAIN

Steps are needed to address both “push” and “pull” factors related to brain drain. Push factors encourage health professionals to leave their countries and include need for increased salaries, safer working conditions, better human resources for health management policies, improved health care infrastructure, and enhanced professional development opportunities. Pull factors draw health professionals to other countries, and include the shortages of health professionals in and their recruitment to high-income countries.

To fully address the push and pull factors the response to brain drain and the resulting human resource crisis requires additional steps. Human resource planning and management capacity must be enhanced. More health workers, both health professionals and other cadres of personnel, must be trained, and the training institutions losing staff to brain drain must be supported. The needs of the areas that suffer most from the crisis, primarily rural areas, require special support. And economic policies that result in limits on the numbers and salaries of health workers must be addressed.

Ideally, factors beyond the purview of health systems and the scope of this report would also be addressed as part of a comprehensive response to brain drain. They, too, help drive away health professionals. These include crime and insecurity,<sup>217</sup> the desire to provide good education for their children,<sup>218</sup> poor governance, conflicts, political instability, lack of democracy, lack of development, corruption, poor human rights practices, arbitrary arrests, intolerance of political dissent, lack of academic freedom, and favoritism based on ethnicity.<sup>219</sup>

PHR proposes the following plan of action to help step the outflow of health professionals from Africa and more generally to nourish the human resources for health in Africa.

## A. PUSH FACTORS

Although discussed below largely in the context of brain drain, many of these push factors are also driving health professionals from rural to urban areas, from the public to the private sector, and at times out of the profession altogether. They may also discourage people from entering the health sector in the first place.

## Salaries and benefits

Low salaries is widely recognized as one of the most significant push factors driving health professionals from low-income countries,<sup>220</sup> though its significance varies by country and by health profession. The director of policy and planning for Ghana’s health service, Dr. Frank Nyonator, mentioned poor pay as one of the two main reasons that health workers want to leave low-income countries.<sup>221</sup> A survey of 20 nurses who left Malawi cited low pay more frequently than any other reason as the cause for leaving.<sup>222</sup> It is possible, though, that if other factors are strong enough, such as unsafe working conditions or a dysfunctional health system, significant increases in salaries might have little effect on emigration. This appears to be the case in Botswana, as “very significant raises in allowances for nurses in Botswana seem to have been to little effect.”<sup>223</sup>

Differences in salaries between the public and private sectors are likely the most important reason that health professionals leave the public health sector for the private sector. In Zimbabwe, nurses who make this transition will receive an immediate 40% pay increase upon joining the private sector.<sup>224</sup> A private sector physician in Kenya tells of how he left the public sector when he found his salary too low to pay for the education of all his children.<sup>225</sup>

Salaries vary significantly within sub-Saharan Africa, as well as across health professions. For example, an EQUINET survey of salaries for junior doctors in several sub-Saharan countries found a range of \$50 per month in Sierra Leone to \$1242 in South Africa.<sup>226</sup> General practitioner doctors in Ghana receive about triple the pay of nurses, about \$575 compared to \$172.<sup>227</sup> A Kenyan nurse reports that nurse salaries are only \$70 per month in her country,<sup>228</sup> whereas physician salaries in Kenya presently begin at about \$500 per month.<sup>229</sup>

Salaries might be so low that they deny health professionals even a basic living wage. The World Bank’s landmark report in 1994, *Better Health in Africa: Experience and Lessons Learned*, reported that salaries for health workers, particularly the lowest grades, had fallen in the 1970s and 1980s to levels that were “too little to support even a small family.”<sup>230</sup> In Zimbabwe, recent hyperinflation has overtaken wages to the point where health

professionals have reportedly been robbed of the ability to afford even a basic living.<sup>231</sup> As a new doctor working at a hospital in Zimbabwe stated, “We are paid so little that all of us in the medical profession think about going overseas . . . . I don’t want to go, but I want to work in modern conditions. I want to be paid enough to support my family. That means I must go to Britain, or maybe Australia.”<sup>232</sup> An NGO network on structural adjustment reports that in Uganda, “Salaries continue to fall short of a living wage, leading to low morale and poor quality of services as employees engage in other activities to supplement their low income.”<sup>233</sup>

Indeed, inadequate wages lead many public sector health care workers to supplement their income in ways that may damage the public health sector.<sup>234</sup> Health care workers might charge patients informal fees which, like official user fees, are barriers to health care for the poor. The degree and prevalence of such fees vary tremendously by country and within countries. Many public sector health workers also have private sector employment. Public health care workers may spend considerable amounts of time when they are supposed to be staffing public health facilities engaged in other income-generating activities like providing treatment from home or working in (or even owning) private clinics or drug shops. As a result, public health clinics may be staffed only several hours per day.<sup>235</sup>

Even health workers able to meet their current financial needs may be worried about their future, particularly their financial security and their children’s education. According to the President of the Ghana Medical Association, Dr. Jacob Plange-Rhule, “The current situation does not allow them to make adequate savings and really it does not assure any future security. So people are leaving to earn adequate monies to put some away into proper pension schemes . . . .”<sup>236</sup> A Zimbabwean physician has also cited the importance of a viable pension scheme,<sup>237</sup> and a study in Ghana found that “saving money for housing and sustenance for retirement” was an important motivating factor for health professionals to emigrate.<sup>238</sup> Health professionals may want enough money to be able to send their children to private education if the public education system is of low quality,<sup>239</sup> and to be able to purchase a house and a car.<sup>240</sup>

## Recommendations

### *1. Donors should assist African countries to increase salary and benefits for health professionals*

While health professionals in high-income countries often receive salaries many times greater than their counterparts in low-income countries, increased salaries can have a significant impact without eliminating the differ-

ences between high- and low-income countries entirely. This is important, as the differences are large. For example, Dr. Marko Vujicic, an economist at WHO, reports that nurses in Australia and Canada receive 25 times the wages of nurses in Zambia, 14 times the wages of nurses in Ghana, and about twice the wages of nurses in South Africa. Differences are similar for physicians.<sup>241</sup>

Yet the cost of living is significantly higher in developed countries, so health professionals in low-income countries can achieve a comparable standard of living on a lower salary. Health professionals may also be able to meet their primary financial concerns, such as being able to afford a good education for their children, with a far lower infusion of resources than would be required to equalize salaries with their counterparts in high-income countries. Therefore, while the appropriate salary and benefits package will vary by and even within a country, it is appropriate to state that as a general rule, “For a large number of health workers who currently earn moderate or inadequate salaries, improved remuneration within conceivable limits could make a big difference.”<sup>242</sup> Along with keeping health professionals in the country, improved salary and benefits for public sector health workers should encourage them to remain in the public sector.

African countries have begun to recognize that they must increase salary and benefits for their health professionals in order to recruit and retain them in the public health sector. Kenya’s health minister, Charity Ngilu, stated in May 2003, “Only when we offered to pay [public sector physicians] a little more . . . were [we] able to raise that number [of public sector physicians from 600] to 1,200.”<sup>243</sup> Kenya doubled its salaries for starting physicians from approximately \$250 to \$500 in July 2002. The higher salaries have even drawn some physicians back to the public sector from the private sector, though in many cases, these are physicians whose private practices were failing. Salaries remain several times higher in the private sector. It is unlikely that the doubling of public sector physicians is due entirely to the wage increase, as the change was quite recent. Kenya’s medical schools had doubled their intake several years earlier, and had begun to graduate more physicians, a probable source of part of the increase.<sup>244</sup>

Ghana has created a system, Additional Duty Hours Allowance (ADHA), to provide extra pay to health professionals beyond normal working hours (160 hours per month). Significantly, this is slowing the emigration of physicians, though possibly less than it had been when first implemented in December 1999.<sup>245</sup> The medical director of the teaching hospital in Ghana’s capital, Accra, attributed an increase of his physician staff from 380 to 430 over a four year period to the ADHA.<sup>246</sup> Also, Nigeria has recently created a Medical Special

Scale to enable physicians to receive higher pay than other civil servants.<sup>247</sup>

Although these examples demonstrate some ability of countries to increase salary and benefits through their own resources, they will frequently require assistance to be effective in recruiting and retaining sufficient numbers of health professionals. For example, Malawi sought \$110 million “for salary restructuring to enhance retention of health personnel” as part of its seven year comprehensive HIV/AIDS management strategy.<sup>248</sup> However, donors rejected significant salary increases for health workers because of the overall pressure this would place on Malawi’s budget.<sup>249</sup>

African countries must examine whether increased pay is necessary to help recruit and retain health professionals, as Malawi, Ghana, and other countries have done. Donors should provide funds to enable low-income countries to increase salary and benefits for health professionals.

Increased remuneration might be provided through increased salaries, as done in countries such as Ghana and Kenya. Other countries have taken different, or supplemental, approaches. Zambia introduced a housing allowance for its civil servants.<sup>250</sup> Ghana, in addition to the ADHA, has provided 368 cars to health professionals over the past five years, and established a revolving fund to support health professionals. The fund had \$3 million as of October 2003, but had yet to start operating.<sup>251</sup> Ghana’s government also plans on spending \$10 million to build affordable housing for medical staff.<sup>252</sup> Uganda has begun to provide a lunch allowance to health workers.<sup>253</sup> Other benefits could include health insurance and paid sick days.

Another alternative is to make the increased pay at least partially performance-based. The NGO Médecins Sans Frontières bases monthly payment of an incentive to health workers in Thyolo District in Malawi on a joint performance review conducted by district and MSF health managers using a common checklist. The amount of the incentive payments can vary, typically adding about 10% of the health workers’ government salary.<sup>254</sup>

## *2. Additional remuneration should be increased within the context of fair salary structures*

In a context where most or all health professionals are under-paid, countries must be attuned to the need to treat all cadres of health professionals fairly when strengthening salary and benefits packages. Ghana failed to do this when designing the ADHA. While the ADHA reportedly has positively affected the retention of physicians, it has had the opposite impact on nurses. The pay increase that nurses received was far enough below that of physicians that the ADHA has actually de-motivated Ghanaian nurses and significantly increased the number

of nurses seeking to leave the country.<sup>255</sup>

Ghana’s experience is not the only one warning countries of the importance of ensuring that all health cadres feel – and in fact are – respected. In 2002 in Zimbabwe, laboratory technicians, pharmacists, physiotherapists, and paramedics went on strike to demand a fair salary structure and standardized grading system. Earlier that year, junior doctors at government hospitals went on strike with similar grievances.<sup>256</sup> The previous year, Zimbabwean doctors had gone on strike because the government gave only junior doctors on-call allowances (the government responded by providing all doctors the allowance).<sup>257</sup> Nurses at Groote Schuur Hospital in South Africa went on strike because a government initiative to provide a 10% salary increase to nurses with “scarce skills” (compared to 15% for doctors with “scarce skills”) covered only nurses with skills in three areas – intensive care, operating theater, and oncology – even though there is a shortage of all nursing skills.<sup>258</sup> Along with increasing brain drain and contributing to strikes, unfair salary structures can also lead to poor workplace relations.<sup>259</sup>

Countries must also be attuned to another risk of a pay strategy that is poorly designed. If specialists receive particularly high salaries in an effort to retain them, the attraction of high pay could deplete the stock of general practitioners, as they decide to become specialists, or as medical students decide to become specialists rather than general practitioners. This could adversely affect health services overall, even as it benefits the specialty. Because rural areas most need generalists, not specialists, this effect could hit rural areas hardest.

## *3. Health ministries and health professional associations should work with civil service commissions and finance ministries to determine how to increase salary and benefits for health professionals.*

Efforts to increase health professionals’ salary and benefits can be complicated by the fact that public sector health workers are typically part of the civil service, which can make it difficult for a government to raise salaries of its health workers without also increasing salaries of other civil servants. As the above examples of increased salary and benefits demonstrate, this is not an insurmountable difficulty. So long as the relevant stakeholders discuss how to work through this issue, including the civil service ministry or commission, solutions can be found. Zambia provided a new benefit to all civil servants. Nigeria and Ghana found ways to provide extra pay just to health professionals working within the civil service structure. Ghana provided non-financial benefits (cars) and overtime payment, while Nigeria created a Medical Special Scale for physicians. Malawi is also exploring the possibility of creating special rules for

health workers within the civil service structure. Zambia, by contrast, has created autonomous health boards. These boards are separate from the civil service, and are able to hire health workers on contract.<sup>260</sup>

Increasing salaries directly through the civil service, rather than instituting special allowances, may be the preferable approach, when circumstances are such that it is not feasible or desirable to increase salaries for all civil servants. Avoiding the civil service or creating special allowances might prevent the additional pay from being taxable or counting towards pensions, and could create unnecessary complications.<sup>261</sup>

#### *4. African countries should consider applying to the Global Fund to Fight AIDS, Tuberculosis and Malaria for costs of increased salaries and benefits.*

The Global Fund to Fight AIDS, Tuberculosis and Malaria has recognized the importance of human resources to scaling up interventions for AIDS, tuberculosis, and malaria. Its guidelines for Round 4 proposals list as an example for human resources budget items, “salaries, wages and related costs (pensions, incentives and other employee benefits, etc.) relating to all staff (including field personnel). . . .”<sup>262</sup> The Global Fund has confirmed that the Fund will indeed finance incentives to retain staff, as well as wages for new staff.<sup>263</sup> Approved proposals from earlier rounds may be revised during the course of implementing the grants to include salaries, benefits, or special incentives.<sup>264</sup>

The Global Fund is a potential source of funding, therefore, for increasing salary and benefits for health workers. Particularly where countries are having difficulty finding other sources for funding, they should consider applying to the Global Fund for these additional resources. Countries will be most likely to succeed in receiving these funds if they have a strategy for sustaining the funding after the Global Fund money is exhausted. The Global Fund’s Round 4 application form asks applicants who include human resources as a substantial portion of their grant request to state how salaries will be sustained after the proposal period has concluded.<sup>265</sup>

#### *5. The United States should remove legislative and administrative obstacles to providing salary and benefits to foreign government employees, including health workers.*

Despite the importance of increasing salary and benefits of health workers, the United States (and other donors) has created unnecessary legislative and regulatory hurdles to providing that remuneration. At least two obstacles exist in the United States. First, at least a portion of USAID’s money is legislatively restricted from being used for “nonproject assistance.” This provision prevents

these funds from being used for budget support, and therefore for a general program of salary and benefits for government employees not connected to a specific USAID project. This restriction applies to USAID’s Child Survival and Health Programs Fund, worth \$1.835 billion in FY 2004. The appropriations bill is a one year bill, with its writ set to expire on September 30, 2005.<sup>266</sup>

Second, USAID also has regulations that relate to the Agency’s contracts, though the Agency has adopted the same policy for its grants and cooperative agreements. The regulations permit salary supplements to host government employees only when conditions in a State Department cable are met, or the supplements are authorized in a particular case.<sup>267</sup> The State Department cable “discourages salary supplements except in very special circumstances.” The cable then delineates the criteria that define when those circumstances have been met. Exceptions to the policy must be approved by an assistant administrator.<sup>268</sup>

Both the restriction on non-project funds in the appropriations bill and the restriction on salary supplements unnecessarily restrict USAID’s flexibility, and discourage USAID from the recurrent funding and salary and benefits funding that may be critical for health systems development in general, and human resources for health in particular. The FY 2005 appropriations bill should therefore exclude the clause that was included in the FY 2004 appropriations bill to prohibit non-project spending. And USAID regulations should be amended to permit salary supplements under a far greater range of circumstances. As restrictions on providing salary and benefits are removed, the United States (and other donors that begin to fund salary and benefits for health workers) should develop mechanisms to ensure that funds are used effectively and promote desired outcomes.

## **Health worker safety and well-being**

### **Fear of occupational infection**

HIV/AIDS has brought with it a new risk to health care workers, the danger of becoming infected with HIV on the job with a needle-stick injury or other occupational exposure. Fear of occupational infection is another significant reason that health care workers are emigrating,<sup>269</sup> leaving the profession altogether, or avoiding the field in the first place.<sup>270</sup> The same survey of Malawian nurses who had left the country due to low salaries found that lack of protective gear was the third most cited reason.<sup>271</sup> Lack of personal safety and fear of contracting HIV have also been specifically cited as a push factor in Zambia and Zimbabwe,<sup>272</sup> though no doubt contributes to emigration from other countries as well. At a workshop of Ugandan health professionals organ-

ized by Physicians for Human Rights, the lack of protective gear was one of the chief concerns voiced by those health professionals.

Despite the risk to health workers, and the fact that the failure to address them is forcing some health workers to decide to leave their jobs, conditions that expose health workers to risk remain common in Africa.<sup>273</sup> For example, birth attendants in Tanzania reportedly have had to “cover their hands with plastic bags to protect themselves from exposure to HIV during deliveries because there are no gloves available.”<sup>274</sup> Health workers interviewed at two hospitals in Kampala, Uganda, all cited or implied that lack of gloves was a problem, and many also mentioned a lack of other protective equipment.<sup>275</sup> Maternity wards in Swaziland also lack adequate supplies of gloves.<sup>276</sup> Margaret Nwizugbe, a nurse in Nigeria, has to buy her own gloves (though at her salary, she “can barely afford” them) because the hospital in which she works does not provide enough gloves.<sup>277</sup>

## Recommendations

*1. Countries in Africa and elsewhere should develop policies that will ensure that health facilities have adequate levels of essential supplies for infection prevention and control. Strategies may include placing such items on an essential medicines and supplies list.*

Health ministries, health workers, and others involved in providing health care must consider it essential that health facilities have adequate supplies of gloves and other protective gear. Such adequate supplies must become routine. Different countries will have different strategies to make this happen, but all should develop a strategy.

One promising strategy is to include protective gear on national essential medicines lists, which are adapted from the WHO list of essential medicines. Essential medicine lists guide national procurement and distribution of medicines, and are medicines that “are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford.”<sup>278</sup> Burkina Faso saw its proportion of unsafe injections plummet from 50% in 1995 to 4% in 2000 after having added single-use syringes to its essential medicines list, with that drop attributed largely to the inclusion of syringes on that list.<sup>279</sup> A similar inclusion of gloves, facemasks, eye protection, sharps disposal boxes, and other protective gear and infection control supplies could greatly increase availability of these items.

*2. The United States and other donors should help ensure that African and other AIDS-burdened countries have funds to purchase gloves and other supplies needed for infection prevention and control.*

A full complement of protective gear can be expensive. UNAIDS has estimated that the cost of implementing universal precautions in all countries with an adult HIV prevalence of more than 1% will reach about \$1.1-1.2 billion by 2007.<sup>280</sup> Many African countries may have difficulty affording all gear through their own resources, so may require financial assistance in purchasing these supplies. The United States and other donors should provide that assistance, and governments of African and other AIDS-burdened countries should increase their own resources devoted to infection prevention and control. Along with supplies required to protect health workers and their patients from HIV/AIDS, additional controls will be required to prevent the spread of other infections in health care settings, such as the airborne tuberculosis.

*3. The United States and other donors should offer logistical support to low-income countries in Africa and elsewhere – including in the areas of product selection, forecasting, procurement, inventory management, transport and distribution, and supervision – to ensure that adequate levels of supplies are always available.*

Along with cost, logistical difficulties may prevent health facilities from having adequate levels of infection prevention and control supplies. A facility might experience delays in refills of its glove supply, for example, that leave its health personnel without any gloves for a period of time. Donors must offer low-income countries technical and material assistance to overcome any breaks in the supply chain, from procurement to final distribution of the protective gear to supervision on the gear’s proper use.

*4. Low-income countries should conduct infection control assessments to determine the precise gaps in infection prevention and control. Infection control policies should be developed or revised accordingly. The United States, the WHO, and other countries or organizations should provide technical assistance as required.*

To ensure that health workers’ safety needs are being met, countries should assess these needs and compare them with current policy. Tools for these assessments have been developed by, among others, the US Naval Medical Research Unit in Egypt, and the government of Malawi. Findings from the assessment will likely inform ways to strengthen the existing infection control policy (or to develop one if it does not yet exist) and reveal gaps

in implementation. Countries should then make the necessary changes, determine the causes for gaps in implementation, and act to address these causes. WHO, the US Centers for Disease Control, and other organizations with the necessary capacity should offer their assistance.

*5. All countries should incorporate infection prevention and control into pre-service curricula at health training institutions, and provide in-service training on infection prevention and control as needed.*

Although all health workers should know and should practice universal precautions, they frequently remain untaught or underemphasized at health training institutions.<sup>281</sup> Training institutions for doctors, nurses, and allied professions should revise their curricula to ensure that infection prevention and control is adequately emphasized. Non-professional health workers should receive training on universal precautions in their initial training. In-service training on infection prevention and control should also be provided to ensure that all staff who do not yet practice infection control procedures are skilled in safe health care practice. Supervisor activities should include observing health workers' adherence to infection prevention and control procedures, correcting any mistakes, and recommending further training if needed.

*6. AIDS-burdened countries in Africa and elsewhere should consider applying to the Global Fund for grants to assist in purchasing supplies for and providing training on infection prevention and control procedures.*

A growing number of countries are using the Global Fund to assist in preventing HIV transmission through health settings, including by implementing safe blood programs and infection prevention and control procedures, including the safe and appropriate use of injections. For example, Ethiopia received funding for supplies and training for universal precautions in the Fund's second round, as did Eritrea in the third round.<sup>282</sup> For most countries, though, the Global Fund remains an untapped potential funding source to ensure that health workers have the supplies and training required to observe infection prevention and control practices.

*7. Donors should incorporate universal precautions into all health programs they or their contractors operate.*

No donor should be responsible for operating a health program whose health workers cannot follow universal precautions, whether they lack appropriate supplies or training. Therefore, all donors should incorporate into budgets for health programs that they or their contrac-

tors operate funding to ensure that these programs operate safely, with health workers able to implement universal precautions.

*8. HIV-positive staff should receive hepatitis B vaccinations, and isoniazid preventive therapy and cotrimoxazole preventive therapy to protect against tuberculosis and other opportunistic infections. Post-exposure prophylaxis should be available to all health workers exposed to HIV in the occupational setting.*

Although health workers are exposed to much disease at work, certain precautions can keep them healthy even in face of that exposure. Universal precautions are a series of such measures. Health workers can also receive preventative therapies. They should, for example, be vaccinated for hepatitis B, as occupational exposure to blood is a major source of hepatitis B for health care workers.<sup>283</sup> HIV-positive health workers should also be provided isoniazid preventive therapy (IPT) and cotrimoxazole preventive therapy (CPT) to protect against tuberculosis and other opportunistic infections. Along with the health benefits, this might encourage HIV-positive health workers to keep working by making them feel valued, and will help keep them healthy. Health workers exposed to HIV through a needlestick injury or other occupational exposure should be provided post-exposure prophylaxis (PEP), a short course of anti-retroviral medication that significantly reduces the possibility that they will become infected with HIV. Health workers must also be trained on PEP and know that it is available. Providing health workers PEP, IPT, and CPT would also "counter the impression of many healthcare workers that their health is not cared for and is at risk."<sup>284</sup>

*9. To enable HIV-positive health personnel to continue working as long as possible, African countries, as well as both high- and low-income countries elsewhere, should introduce flexible working schemes, long-term sick leave, early retirement, and other employment packages to meet their employees' needs.*

HIV-positive employees may have special needs. HIV may prevent them from working full-time, or may force them to take extended periods of absence. Flexible employment schemes will enable HIV-positive health workers to continue their valuable service. Employers should make available such benefits as long-term sick leave, flexible working hours, and early retirement. Employers should also publicize and enforce a policy of non-discrimination against HIV-positive workers.<sup>285</sup>

Along with enabling HIV-positive workers to continue to work, an HIV-positive friendly policy would also encourage health workers to learn their status. This will enable them to access support services and, where available, anti-retroviral treatment. Besides the obvious benefits to the health workers themselves, this will enable health workers to continue serving in the health system.

Efforts are beginning to be made to support HIV-positive health workers. As an early step in an International Council of Nurses initiative to increase nurses' access to AIDS treatment, the Zambian Nurses Association and Zambian Ministry of Health will collaborate to provide free HIV-tests for pregnant health workers and, where appropriate, to provide Viramune, an anti-retroviral drug, to prevent mother-to-child transmission of HIV. Viramune is being donated by its manufacturer, Boehringer Ingelheim. The program is expected to expand into other countries in sub-Saharan Africa.<sup>286</sup>

*10. Countries that establish AIDS treatment programs should conduct outreach to health workers to ensure that they are aware of and able to access these programs.*

Governments should conduct outreach programs to their health workers to ensure that they are aware of AIDS treatment programs, as well as counseling and testing opportunities, and are treatment literate. Governments' outreach responsibility is not unique to health workers; they owe this outreach to everyone in the country as part of an effort to make AIDS treatment succeed. This outreach responsibility may be heightened for certain citizens or other residents. For example, in order to ensure equity in treatment scale-up and to protect the rights of vulnerable and marginalized populations, government also owes special outreach efforts to those who are least likely to access treatment absent any special effort.

Outreach to health workers may be especially important. This outreach is necessary to help health workers stay alive and in the health system, critical not only to their health, but to the health of the entire population. Indeed, since wealthy people are likely to be able to access health services whatever the state of the overall health system, the well-being of public sector health workers may be particularly important to the health of the poorer members of the population, and has been cited as serving the cause of equity.<sup>287</sup> Also, health workers may have special confidentiality needs. If health

workers are tested for HIV or receive anti-retroviral therapy at the same facility at which they work, they may have little practical choice but to reveal their status to their colleagues. Special programs may have to be designed to help overcome this challenge.

*11. Establish and progress towards the goal of using syringes and other medical sharps that have safety features to protect health workers.*

Another way to both protect health workers and demonstrate respect for them is for low-income countries to use needles and syringes with safety features, such as a sheath that automatically covers the needle after use. Such syringes will help prevent needle-stick injuries, and so reduce health workers' fear of the job. Donor countries could assist in funding these syringes.

### **Occupational stress**

Occupational risk is also part of a cluster of factors that contribute to health workers leaving the country, public sector, or profession. Along with fearing for their own safety, health workers face the daily experience, much exacerbated by the AIDS crisis, of seeing their patients die in large numbers. This occurs even as they must also cope with the deaths and illnesses of relatives, friends, and colleagues. Having to deal with so much death is made all the more stressful by the fact that health professionals are trained as healers, yet they often lack the tools to enable them to heal their patients, leading to a feeling of professional inadequacy. Health workers may also face the pressures of facing new, possibly traumatic tasks, such as HIV counseling, without proper training.<sup>288</sup> Severe staff shortages and the high demands HIV/AIDS places on health systems means that workloads are quite high, which also contributes to the stress of the job.<sup>289</sup>

As the main service providers, nurses often bear the brunt of the workload. "Burnout syndrome is widespread with nurses overwhelmed with the stress of nursing a full ward of very ill patients with so little support," reports Stella Zengwa, President of the Zimbabwe Nursing Association.<sup>290</sup> Yet few nurses or other health workers have access to organized support to cope with their stress. A study of three regions of South Africa's wealthiest province, Gauteng, found that only 36% of providers "participated in formal group meetings for clinical or counseling debriefing," with "considerably lower" figures expected in other provinces, especially rural areas.<sup>291</sup>

## Recommendation

1. *African countries, with donor assistance as necessary, should offer psychosocial support to health workers, where possible within a larger context of support for health workers that includes HIV/AIDS prevention and treatment services.*

Health workers must have access to psychosocial support. The support could take various forms. It could involve peer support groups,<sup>292</sup> organized by the health ministry or possibly by professional associations, with the role of the national nurses association being most significant. The support groups should be accessible to all nurses, so would have to be in a number of locations, possibly based in hospitals or nursing training institutions. Transportation should be made available to health workers to enable them to attend these support groups. Attendance should be confidential, and the availability of these support groups well-publicized.

Countries should consider organizing more ambitious support for nurses and other health workers. For example, programs could be established that in addition to providing health workers with psychosocial support, also provide HIV/AIDS prevention and treatment services, including confidential HIV counseling and testing and anti-retroviral therapy. Like others, health workers are reluctant to get tested for HIV because of concern about their colleagues knowing their HIV status. This may present a special impediment to health workers, however, because the very people who would be involved in the testing and counseling process, and who might see that they are receiving testing and counseling, are their colleagues.

Special HIV/AIDS programs housed away from their facility could enable health workers to receive HIV/AIDS services confidentially. If housed at nursing schools, these programs could meet the needs of both current nurses of all grades as well as nursing students, who are typically at an age of high vulnerability to HIV. Such programs should be open to other health workers besides nurses. Giving special attention to the needs of nurses by placing these programs in nursing schools, though, and simply having such programs, should help boost nurses' morale and their sense of being respected. This is quite important for a profession that does not receive the respect it deserves and is the backbone of health care in Africa.

## Physical health infrastructure and health systems management

A survey in Zimbabwe in 1998 found that physicians' number one reason for leaving the public sector was that they did not have the equipment, supplies, and drugs to

offer effective care for their patients.<sup>293</sup> They were health professionals who felt they had lost the capacity to heal. A Zimbabwean physician expresses his frustration: "I see patients suffering and dying needlessly because we are working in an unprofessional environment. The medical school should have trained us to work in medical conditions from 200 years ago."<sup>294</sup> The principal of a nursing school in Nigeria suggests that without a massive investment to reverse the "decay in the Nigerian health sector," the flight of Nigerian nurses will continue.<sup>295</sup> A pamphlet on human resource development published by the African Region of WHO highlights two actions needed to motivate staff, which will have among its affects helping stem brain drain. These actions are improving salaries and benefits and ensuring "availability of physical infrastructure, tools, and medical equipment, drugs, and medical supplies that promote a conducive work environment for both health and health-related professionals."<sup>296</sup>

Health professionals need the tools to be able to do their job. An environment where health professionals have the skills to help their patients, but lack the medicines, equipment, and supplies, to apply these skills is tremendously demoralizing. Part of the response to brain drain, therefore, intersects with the broader agenda of ensuring that the physical infrastructure and logistical, information, and other systems are in place to enable health systems to function.

## Recommendations

1. *The United States and other donors should assist African countries<sup>297</sup> to rehabilitate health facilities in need of repair and upgrade. All health facilities should be ensured phone service, electricity, and a constant supply of safe water. Upgrades should also begin to make Internet service available. Technologies such as solar panels, electric generators, and satellite-based phones make it possible to provide these utilities to even remote health facilities quickly and at relatively low cost.*

Many health facilities may require physical repair and upgrades. For example, a study published in the early 1990s found that only 660 of 1,800 rural government dispensaries in Tanzania were in good condition, and a 1990-1991 survey of 15 publicly operated hospitals in Kenya found that 40% of the buildings were in poor or unsatisfactory condition.<sup>298</sup> When funding is available, it is possible to rehabilitate health facilities relatively quickly. Less than a decade after 1994, South Africa had "seriously upgraded" 205 primary health facilities, while another 2,298 had been upgraded and given new equipment.<sup>299</sup> Malawi's National Health Plan calls for a large program to upgrade, rehabilitate, or construct a total of 52 health facilities at a cost of \$178.75 million. These improvements would include constructing two

new hospitals and two new health centers, replacing five district hospitals, rehabilitating nine district hospitals, three central hospitals, and five rural hospitals, and upgrading nine dispensaries to full health centers and 17 health centers to community hospitals.<sup>300</sup> Construction and rehabilitation of health facilities must be part of an overall strategy to strengthen the health system, to avoid the situation where buildings are constructed but not equipped, or rehabilitated but not staffed.

A small sampling by Physicians for Human Rights of hospitals and clinics in Eastern Cape, South Africa, found that the physical expansion of the facilities to allow for proper maternity wards, nursing residences, and more private space for voluntary testing and counseling was a top priority of nurses and doctors at these facilities.<sup>301</sup> Indeed, most health facilities in Africa were constructed before a high demand for HIV counseling, so it is likely that more facilities will have to be sensitive to privacy needs.

All health facilities must have phone service, electricity, and a constant supply of safe water, though particularly at some rural health facilities, lack of these basic utilities remains a problem. Sometimes, the solution will be simple, such as tapping into existing electricity or phone grids or water pipe systems. For more isolated health facilities, other solutions may be necessary. Health clinics not attached to an electricity grid can install solar panels to produce electricity, or can purchase their own generator.<sup>302</sup> Solar power reportedly has been very successful in Eastern Cape, except some solar systems have broken down.<sup>303</sup> It is therefore necessary for health personnel to be trained in simple repairs, and for a maintenance support system for more complicated repairs to be available and funded. Clinics not receiving piped water can have their own pumps and rain tanks (which can be filled by rain or water trucks), and clinics should have enough funds to keep their water delivery systems in good repair.<sup>304</sup> In some cases, they might also be able to drill wells to supply them with clean water.

Where a telephone grid is not available, health facilities have several options. Health workers can use cell phones if there is a cell phone tower in the area, otherwise satellite-based technology, can be used to provide phone and fax service, and even e-mail and Internet service. One South African company provides satellite-based phones that require very little power, enabling them to operate using their own solar panel, if need be.<sup>305</sup> Health clinics can also use two-way radios.<sup>306</sup> Health facilities should also be made Internet accessible, both to enhance communications among health care workers and to enable health workers to receive up-to-date information on AIDS and other health issues over the Internet.<sup>307</sup> Computer services will create additional recurrent costs, including the costs of Internet access, proper computer maintenance, and anti-virus software.<sup>308</sup>

An infrastructure program in Malawi provides a sense of the relatively low cost of providing health clinics with water, electricity, and communications equipment. Malawi's National Health Plan has prioritized improving health centers by drilling 164 boreholes for water, installing 206 solar paneling units, hooking 12 health centers to the Electricity Supply Commission of Malawi (Malawi's power grid), and installing 185 radio communications units. The total cost for these upgrades is \$5.45 million.<sup>309</sup>

## *2. The United States and other donors should assist African countries to ensure that health facilities have the necessary drugs, supplies, and equipment.*

Under-funded health systems continue to find themselves running out of drugs and basic supplies.<sup>310</sup> For instance, rural facilities in Zimbabwe are often short of drugs and needles, and even Harare Central Hospital in the capital spent two weeks without a general anesthetic for operations, and recently ran out of standard suture material.<sup>311</sup> Uganda health facilities often find themselves out of drugs needed to treat opportunistic infections.<sup>312</sup> Part of the reason health facilities have too few drugs and other supplies is that they are not allocated sufficient funds to purchase them. These funds must be made available in a timely manner.

Health facilities often cannot afford what should be standard equipment, or lack the funds or access to skilled personnel to repair equipment that has broken. In the two poorest regions (of five regions) of Eastern Cape Province in South Africa, glucometers, which are a critical piece of equipment for managing diabetes, were available in only 6% and 13%, respectively, of clinics in 1999 (compared to 74%, 94%, and 100%, respectively, in the other three regions).<sup>313</sup> There is reportedly no MRI machine in all of Ghana.<sup>314</sup>

Along with simply lacking necessary equipment, often the equipment that health facilities do have is not working properly. According to the WHO, "Over 50% of medical equipment in developing countries is not functioning, not used correctly, and invariably not maintained."<sup>315</sup> In Kenya, a study reported in the early 1990s found that 40% of equipment was out of order. With investment, however, equipment can be repaired and, where the equipment is in short supply or beyond repair, new equipment can be purchased. In Nigeria, a survey of hospitals in 1992 estimated that broken equipment could be repaired for \$47 million, with another \$35 million needed to invest in essential items.<sup>316</sup>

A major reason that so much equipment is in disrepair is that "underfinancing of maintenance and repairs [is] virtually universal among African health facilities [and] is particularly apparent in public sector facili-

ties.”<sup>317</sup> By and large, countries have too few medical maintenance personnel, and their training is underfunded.<sup>318</sup> There is a clear need, then, for hiring and properly training medical maintenance workers.

Health facilities should also be supplied with reference material to assist health care workers address different health conditions.<sup>319</sup> The material can reinforce the training of health care workers and assist them in addressing conditions for which they have little knowledge or experience.

*3. The United States and other donors should also provide funds and technical assistance to help African countries: improve drug distribution systems, including through training and possible implementation of the stock management system; purchase and maintain ambulances and communications equipment needed to strengthen referral systems, and; invest in computer systems, programs, and training to enhance health information management.*

Along with inadequate funding, health facilities may run out of drugs and supplies because of poor drug distribution systems, one of a number of health systems management issues that must be addressed. Sometimes, systematic or policy changes can significantly improve drug distribution systems. For example, in 1993 Burkina Faso initiated a highly successful drug distribution program that combined new village pharmacies, an essential drug list and treatment guidelines, refresher courses on essential drugs for nurses, and training for drug vendors at the village pharmacies.<sup>320</sup> Eastern Cape introduced a computer inventory system in 1995 and a system of stock control cards in early 1998. These cards allow health care workers to keep track of quantities of drugs used and to ensure timely re-supply of an adequate amount of drugs. At least seven of ten key drugs or items were available in only 59% of clinics in the province in 1998, but in 92% of clinics by 2000, a measure expected to continue to improve as clinic workers become used to making the calculations necessary to determine the proper replenishing levels.<sup>321</sup> If a drug runs out, clinic staff can place a special order by telephone, and will receive the drug within one or two days.<sup>322</sup>

Sometimes, simple inputs can improve drug distribution. Ethiopia’s second round proposal to the Global Fund, which was approved, noted the need for more “trucks to facilitate timely delivery of items by the central agencies to regions and by regions to district level implementers.”<sup>323</sup> Since the stock management system in Zimbabwe requires some mathematical ability, calculators, which are not available in all health facilities, would aid health care workers in making these calculations.<sup>324</sup>

The drug distribution system involves a flow of drugs from central areas to more remote facilities. By contrast, the referral system involves the flow of patients from more remote to more central facilities. Transportation is again an obstacle, one that can be easily removed. Lack of communication equipment can also interfere with a successful system of referring patients from clinics to higher-level facilities. Malawi’s original first round proposal to the Global Fund states, “Although communication between different levels of health facilities is crucial to ensure proper triage, treatment and transport, many facilities do not have radios to communicate with ambulances and other facilities. In addition, due to a shortage of ambulances, especially in outlying areas, transport can be delayed for days or longer.”<sup>325</sup> Lack of transportation is also a major obstacle to an improved referral system in rural Ethiopia.<sup>326</sup>

Along with having enough vehicles, health facilities and ministries must have the skills and finances to repair those that have broken, or access to people who have these skills. In Ghana in 1987, only 167 of the Ministry of Health’s 660 vehicles were roadworthy. In 1990, only 58% of the vehicles belonging to Guinea-Bissau’s Ministry of Health were operable.<sup>327</sup>

Besides being unable to deliver quality care because they lack such tangible goods as medicines, health professionals may find the lack of information to be a hindrance. Information management – keeping track of, for example, services offered by different health facilities, patients’ diseases, and treatment outcomes – is important to plan health services and medicine procurement and to assess whether the health system is functioning properly. Breakdowns in the systems can be located, investigated, and fixed. Because of the importance of monitoring the access to, quality, and outcomes of anti-retroviral therapy programs, and the need to keep track of patients on anti-retroviral therapy, information management is an important component of WHO’s 3 by 5 initiative to get 3 million people in developing and transitional countries on treatment by the end of 2005.<sup>328</sup>

Providing health workers feedback on the value of the information they collect and how it will be used is key to a successful information management system.<sup>329</sup> It should also help morale by preventing health workers, already overburdened, from viewing the data collection as a waste of time. To ensure that data collection is not adding unnecessarily to health workers’ workload, data collection and input systems should be designed as simple as possible, and include only essential information.

*4. The United States and other donors should assist African countries in providing quality and*

*consistent supervision. This support should include technical assistance and funds to train supervisors and to purchase and maintain vehicles.*

A large scale study of STD management in rural Tanzania concluded that “the importance of good quality supervision cannot be overstated.”<sup>330</sup> In the study’s initial phase, the support of supervisors was critical in helping health care workers put their training into practice. Supervisory visits and in-service training succeeded in correcting tendencies of about 20% of health care workers to deviate from treatment guidelines.<sup>331</sup>

The importance of quality supervision extends beyond ensuring that health workers follow treatment guidelines and adhere to good practices more generally. Good supervision can be an integral element of support for health workers, making it important to health worker morale. Two researchers from the University of Cape Town in South Africa observe that “good support and able management (including planning and supervision) will vastly improve work satisfaction and ability to function productively, while lack of management and support contribute substantially to low productivity and demotivation,”<sup>332</sup> which health systems facing an exodus of health workers can ill afford.

The researchers continue, “Without supervision, staff easily feels unappreciated and insecure, particularly in the implementation of new policies and treatment regimes.”<sup>333</sup> The introduction of AIDS interventions, especially treatment, makes quality supervision particularly important. Also, supervision can help prevent staff burn-out<sup>334</sup> and positive feedback from supervisors can boost morale.<sup>335</sup>

One obstacle to supervision is the health worker shortage itself. Supervisor slots may be vacant, or supervisors might attend to clinical rather than supervisory duties. In other cases, however, relatively simple interventions can greatly improve the quality of supervision. In Eastern Cape, shortages of vehicles were a “particularly serious” obstacle to supervisory clinic visits,<sup>336</sup> though the situation has improved.<sup>337</sup> Also in Eastern Cape, supervisors were trained on a two-page supervisory checklist to provide guidance, an intervention deemed “highly successful.”<sup>338</sup> A study published in 1991 revealed that a lack of transportation and telephone or two-way radio communication between urban and rural areas often prevented supervisors in Niger, Senegal, and Zaire from making supervisory visits.<sup>339</sup> Cars, simple logistical and technical supports (such as checklists), telephones, and training can all significantly improve supervision. Other important elements of a clinic supervision system include having a supervision policy that is enforced; adequate numbers of properly

trained supervisory personnel; ongoing skills development in such areas as communications, information technology, time- and conflict-management, financial and human resource management, and human interaction, and<sup>340</sup> clear job descriptions.<sup>341</sup>

## **Pre-service training**

Many recently graduated African health professionals, especially physicians, find themselves equipped with skills that would sooner serve them in developed countries than the primary health facilities in their own countries where they are most needed. Their medical training focuses on practice in tertiary facilities and prepares them to use advanced technology that will rarely be available in the settings in which they actually practice, at least if they practice in their country’s public sector.<sup>342</sup> The curricula and standards have “been described as being of little relevance to health needs in Africa.”<sup>343</sup> In the words of a Turkish physician, “What we have been taught and encouraged to emulate, is the health care system in the West. To become respectful professionals – the system reminds us – we have to further ourselves by pursuing a higher degree in a ‘Western country’. . . . Every step of the way, this health professional is encouraged to become Westernized.”<sup>344</sup> Though there has been some progress, including increasing attention to community-based training rotations, which provide exposure to on-the-ground realities, curricula still have a long way to evolve.<sup>345</sup>

The result of the disconnect between the curricula of many health training institutions in Africa and actual practice conditions is that health professionals become dissatisfied with their local employment opportunities, which do not enable them to practice the kind of medicine for which they were trained. They are also likely to be frustrated with having to practice in conditions for which their training does not adequately prepare them. This frustration can lead health professionals to seek out employment conditions that match their training, which may mean employment abroad,<sup>346</sup> or possibly in tertiary health institutions or the for-profit sector that caters to wealthy patients.

Such changes could meet resistance from those who argue that changes would downgrade the medical profession and its standards, and would not “wish to contemplate abandoning high-quality medical practices which, though certainly expensive, nonetheless also meet patients’ needs.”<sup>347</sup> This resistance, while understandable in its desire to maintain high professional standards, is misguided in its interpretation of those standards. The job of health professionals is indeed to meet the needs of their patients, but those needs will vary by country.

Health professionals' ability to meet those needs will be determined in part by their ability to work in the environment in which they find themselves, even if that environment is less than ideal.

## Recommendations

*1. African country health training institutions should adjust their curricula to prepare graduates for the conditions in which most will practice in Africa, including an emphasis on primary health care and common health problems.*

Curricula of medical, nursing, and other health training institutions should be re-oriented to prepare health professionals for the conditions under which they are likely to practice in their countries. Diseases and other health conditions common to the country, such as malaria, tuberculosis, AIDS, malnutrition, STDs, and children's diseases, should be emphasized, and health professionals should be prepared to work at the primary and district levels, not only in urban, tertiary centers.<sup>348</sup> The WHO Regional Office for Africa has proposed a "relevance test," whereby health science and medical curricula are tested to ensure that "at least 80% of the curriculum content . . . cover[s] all of the conditions that are major determinants of health and well being in the respective country."<sup>349</sup>

One proposal that might help make the curriculum changes more politically feasible would be to realign the curriculum "around two blocks, corresponding respectively to: i) basic training defined according to international standards, and ii) medical practices specific to the typical conditions of exercise in each country."<sup>350</sup>

WHO could assist this process by collecting and disseminating examples of curricula that do focus on local conditions and needs, including primary health care. While working conditions and the most pressing conditions vary by country, there is sufficient overlap that these examples should aid other health training institutions that are considering revising their curricula. Medical and other health training institutions in high-income countries, particularly those that have programs to train their own health professionals to work in underserved areas within their own countries or to practice in low-income countries, could provide valuable technical assistance.<sup>351</sup>

In collecting and promoting good practices in curriculum development, WHO might be assisted by the World Federation for Medical Education and the African Medical Schools Association, which could have a productive role in promoting successful curricular strategies. Having the involvement and endorsement of these organizations could also help allay concerns among those who

fear that curriculum changes would denigrate the quality of medical education.

*2. African countries, as well as other developing countries, should include AIDS care and treatment, including anti-retroviral therapy, in the curricula of their health training institutions.*

One condition that all African health professionals must be trained to deal with is HIV/AIDS, including providing anti-retroviral therapy. The most efficient and effective way to create local capacity to treat AIDS is by incorporating it into pre-service training curricula for physicians, nurses, pharmacists, and other health professionals. To meet the immediate need, anti-retroviral therapy should immediately be taught to students graduating from health training institutions. In parallel, anti-retroviral therapy should be incorporated as part of a new or revised comprehensive HIV/AIDS curriculum. The curricula should meet WHO standards, including for anti-retroviral therapy, and may use training packages that WHO develops. Along with revising the curriculum, teachers and clinical staff will have to be trained in the material itself, as well as on teaching it and assessing students' mastery of the material.<sup>352</sup>

*3. Teaching methods in African health training institutions should be re-oriented to include critical thinking and problem-solving.*

Many health training institutions in Africa are said to use "outdated learning and teaching methods such as learning by rote and authoritative teaching methods . . . [which] have been cited as reasons for poor graduate quality,"<sup>353</sup> though the teaching methods are evolving, and include more problem-solving than in the past.<sup>354</sup> The difficulties caused by learning by rote are compounded by the current lack of emphasis in curricula on diseases and other conditions that are common in African countries. Health professionals are therefore likely to confront conditions around which they have received little direct training. They will need critical thinking and problem-solving skills to adequately address these conditions. Therefore, teaching methods in African health training institutions should focus more on these skills.

## Research and graduate training opportunities

Many health professionals, especially medical students, get their first taste of what it is like to practice overseas through graduate medical education. The President of the Ghana Medical Association explained that "after they get the new qualifications they realise that life out there is so rosy that they do not want to come back."<sup>355</sup> Or if they do come back, having spent several years in a resource-rich,

technology-rich health care setting, many returning doctors “find the hospitals and clinics so under-resourced and the work so unstimulating that they seek early opportunities to return to the environment in which they have trained and are most comfortable.”<sup>356</sup> Many foreign health professionals in the United States first work in the country in residency training programs.<sup>357</sup>

Health professionals interested in research may be particularly affected. “Researchers cite lack of funding, poor facilities, limited career structures, and poor intellectual stimulation as important reasons for dissatisfaction.”<sup>358</sup> Health professionals generally, not just researchers, will be interested in keeping up-to-date on developments in their field. Access to the Internet, with its great potential for helping health professionals remain up-to-date, is often limited, especially in rural areas, and libraries are often under-funded.<sup>359</sup> Not only is this demoralizing, but it also reduces the quality of service that health professionals are able to provide.

## Recommendations

1. *Africa health ministries should enhance the quality of continuing education they provide health professionals.*

Continuing education for health professionals must be introduced or strengthened.<sup>360</sup> For health professionals who have access to the Internet, some of this continuing education can be provided including through on-line training modules<sup>361</sup> or websites dedicated to continuing health professional education. Even where there is little or no Internet connectivity, health professionals can be provided with updated information through the mail and through in-service training. In-service training that is conducted outside the clinical setting should be kept to a minimum.

2. *The United States and other donors should assist African countries in providing Internet connectivity to all health facilities. Computer and related corporations should assist in providing equipment and services at no or reduced cost.*

Access to the Internet will not only assist in formal continuing medical education, but also provide health professionals access to the vast amount of information on the Internet, and the stimulation that this can provide. Health professionals should be trained in basic computer and Internet maintenance, and more advanced maintenance and technical assistance should be made available.

3. *The United States and other donor governments should assist African libraries, including medical libraries, obtain up-to-date materials and maintain up-to-date collections. Health training institutions in the United States and other high-income countries should also assist African health sciences libraries.*

Ensuring up-to-date collections health sciences libraries will enhance the quality of medical, nursing, and other health pre-service training available in Africa. It will also benefit and help boost the morale of health professionals who practice at or near academic training institutions that house these libraries, and may help retrain teachers and other trainers at health training institutions. Cars or trucks might be used to transport material to health professionals who are not near these institutions. Donor governments should support the libraries. Also, health training institution in the United States and other high-income countries, as well as health sciences libraries not affiliated with these institutions, should provide financial or in-kind support to African health sciences libraries.

4. *Medical and other health-related journals should be made available for free or at a nominal cost to health professionals in Africa and other parts of the developing world.*

If medical and other health-related journals are sold at no or low cost to libraries in developing countries, the quality of these libraries’ collections will be greatly enhanced. This might be paid for through a tiered pricing system, under which journal purchasers in high-income countries would in effect subsidize purchasers in low-income countries. These journals should also be made available at no or nominal cost over the Internet to health professionals practicing in developing countries, such as by permitting them to subscribe online for free. This will enable all health workers who have Internet access, not only those who can go to a health sciences library, to read these journals. Some health journals are already available for free on-line, including established journals such as the *Bulletin of the World Health Organization* and *BMJ*, and new journals such as *Internet Health* and *Human Resources for Health*. Others journals are archived online, with many articles available for free, such as the *Lancet*. There is an Open Access movement afoot to increase the available of scholarly publications on the Internet available free of charge.<sup>362</sup> The NGO SATELLIFE has reached agreement with more than 60 medical journals to provide their publications to developing country health workers for free.<sup>363</sup>

5. *African countries should consider initiating or improving upon existing medical graduate training programs. The United States and other donors should provide financial and technical support, as should graduate training programs in high-income countries.*

African physicians will not have to go abroad to attend medical graduate programs if African countries have their own programs of good quality. If Africans attend these programs locally, they will not become accustomed to practicing in a high-income country. To the contrary, they will have the opportunity to become accustomed to practicing in their own country. This will at least remove one factor that draws some African health professionals away from Africa – acclimation to practicing in a high-income country. The residency programs in African countries will also, at least to the extent African physicians attend them, keep African physicians in their home country for at least the several year duration of the program.

Ghana has recognized the potential value of a graduate training program to preventing brain drain. Ghana was to initiate its national postgraduate training college in December 2003<sup>364</sup>, and the college is indeed now operational and set to receive its first intake.<sup>365</sup> Ghana re-organized its residency training to include a national network of twenty-two hospitals, including some in rural areas. Training will take at least 1.5 to 2 years, after which trainees will receive diplomas, and can continue training to become “members” or “fellows.”<sup>366</sup>

6. *Nationwide or facility-based committees should be established in African countries to review the quality of graduate training, including residency programs and specialty training, particularly to address concerns of students and resident physicians. Students and resident physicians should be on these committees.*

A study of post-graduate training in Ghana, before its new programs, and Nigeria found that the training “was described by students and faculty alike as being fraught with frustration.” Among the problems described were verbal abuse, large class sizes, professors who had private practices in addition to teaching duties, dissatisfaction over grading, and very hierarchical relationships between students and professors.<sup>367</sup> Along with reducing the quality of post-graduate training, and thus the quality of the graduates, poor post-graduate training will likely lead to students seeking residencies abroad.

Some of these problems are structural. Higher salaries, for example, might reduce the number of professors who resort to private practice, and higher pay and more investment in graduate training programs generally might increase their quality, attract more professors, and reduce class size. Other issues, such as the

hierarchical relationship and grading, could be changed without significant financial investment, requiring instead a commitment on the part of those who run graduate training programs and faculty of these programs to listen to and address these student concerns. Committees at a national or facility level could highlight student concerns and potential solutions.

7. *The United States and other donors should consider funding research opportunities in African countries for African health professionals.*

To encourage health professionals interested in research to remain in their home countries, the United States and other donors can fund research projects in African countries conducted by African health professionals. So that these researchers help alleviate the severe shortage of health professionals, it might be stipulated that they must spend a certain portion of their time providing clinical services (if they are also practitioners), possibly in underserved communities. Alternatively or additionally, the research supported should be aimed at meeting the health needs of people in Africa. Also, donors should evaluate the effect that these research programs will have on the internal distribution of health personnel before funding the programs. Donors should ensure that such programs will not exacerbate inequalities by drawing health professionals away from clinical services, particularly in rural or other underserved areas, to instead engage in research in urban facilities.

## **Medical school culture**

At least some medical schools in Africa have a culture that encourages graduates to practice abroad. Interviews of students and faculty in medical schools in Nigeria and Ghana found what could be described as a culture of medical migration. “The *culture* among the remaining physicians in both Nigeria and Ghana is the product of a long history of medical migration. Students learn from their professors, family members, and others about the benefits, both tangible and intangible, of the migration experience.”<sup>368</sup>

Students’ role models are often physicians on medical school faculties who have spent considerable time abroad. As the interviewers explained, “The message is strong: training and practicing abroad is a marker of prestige and success.” The message is encouraged by faculty members, who often “measure their *own* success as teachers by whether their students are competent enough to practice in the competitive medical environments of the United Kingdom and the U.S. They *do not discourage* migration.”<sup>369</sup> Indeed, one medical school dean noted, “I feel proud that our students are succeeding in other places. In fact, we boast about it.” A medical school dean in Nigeria explained this attitude in terms of

the best interests of their students: “We don’t have the resources here (to offer the best possible medical school education or practice opportunities)—this is a terrible environment. . . . I don’t mind that (our graduates) remain in the U.S. What are they going to do here? America has the greatest . . . technology.”<sup>370</sup>

Although these interviews were limited to Ghana and Nigeria, they raise a serious issue rarely highlighted in literature on brain drain – the ways in which the culture at medical schools might encourage students to practice abroad. Even as further research is required on this topic to determine how widespread this type of culture is in African medical schools, efforts must begin now to change this culture where it is found to exist. As experience with these efforts at changing medical school culture accumulates, the lessons can be applied elsewhere, and efforts at changing the culture adjusted accordingly.

## Recommendations

*1. Where a culture of medical migration exists, African countries should conduct programs for faculty at medical schools that seek to persuade faculty to encourage students to remain in country. When hiring new faculty, those who are likely to encourage students to practice in the country should be favored.*

It may be difficult to change the views of professors who have been teaching for many years, and who are set in the notion that success means sending students abroad. Indeed, these measures of success – training a student who gets accepted at a good job overseas – are significant accomplishments, and it is quite understandable that they would make a teacher proud. But in light of the human resource shortage in the students’ home countries, medical schools, NGOs, and African governments should collaborate in efforts to try to change these views of success, so that students’ mentors encourage them to remain in their home country rather than practice abroad. For example, rather than instilling in students the notion that, in the words of one student, “If you’re ambitious, you’ll migrate,”<sup>371</sup> the culture of medical schools should be, “If you’re ambitious, you’ll stay.” It is, after all, more challenging to practice medicine in resource-poor settings where disease burdens are very high – but these are also settings where highly motivated physicians may be able to make the greatest difference.

When new faculty members are to be hired, candidates’ views on migration should be considered in determining their qualifications. If it is possible to determine which candidates are likely to encourage their students to remain in the country – possibly a subject for research – they should be favored.

*2. Particularly where a culture of medical migration exists, health training institutions in African countries should develop strategies to promote the attractions of remaining in country.*

Changing faculty opinion of what constitutes success will be difficult, so strategies to change a culture of medical migration will have to go beyond this. For example, students could be introduced to physicians who have had rewarding careers primarily or entirely within their own country so that these physicians can become role models. They can emphasize the importance of public service in the role of the physician. A formal affiliation between these physicians and the school might be created. Even if some faculty members continue to promote migration, students will have alternative views to consider and people to learn from.

Another possible element of the strategy would be to teach aspiring physicians (and indeed, students of other health professions as well) advocacy skills to enable them to challenge the shortcomings in the health facilities and systems in which they will practice if they remain in the country. Perhaps students and new health professionals will be less likely to migrate if they feel that they will have the capacity to change their environment, and even view this challenge, an opportunity to have a significant impact on their people’s health, as an incentive to stay.

If the country is in the process of significant health system reforms and investments, medical students should be informed of these changes. If they see that the health system in their country is and will continue to improve, and if they see a government committed to improving it, medical students might be more likely to remain in the country upon graduation.

## B. PULL FACTORS

### Shortage of health professionals in developed countries

Shortages of health professionals in high-income countries are driving the growing trend of these countries looking abroad to meet their health personnel needs, which is faster and less expensive than nurturing their own workforces. The shortages are largely a result of changing demographics – aging populations that will require more health care and aging health workers soon to retire<sup>372</sup> – as well as growing health care expectations.<sup>373</sup> Other factors contribute as well. The American Nurses Association cites obstacles to the recruitment and retention of American nurses: inadequate planning, working conditions, pay, and career opportunities.<sup>374</sup> The United States faces its most severe shortage in the field of nursing. According to a Department of Health and Human Services study in 2002, the United States was already facing a shortage of 111,000

registered nurses in 2000. That number could rise to 275,000 by 2010 and 808,000 by 2020.<sup>375</sup> By contrast, the United States is actually producing more physicians per year than it needs, though their professional distribution is less than ideal. According to the Council of Graduate Medical Education, by the late 1990s, the United States was training annually 662 too few generalist physicians, but 4,000-plus more specialist physicians than required.<sup>376</sup>

The United States has much company in its nursing shortage. In 2002, the United Kingdom's Department of Health set and met a target of adding 20,000 new nurses by 2004, and a further 35,000 by 2008.<sup>377</sup> In 2002, the Canadian Nurses Association warned of a possible shortfall of 78,000 nurses by 2010.<sup>378</sup> The United Kingdom and Canada both also face physician shortages.<sup>379</sup> Some European Union countries suffer severe shortages of doctors and nurses.<sup>380</sup>

In high-income countries, just as in low-income countries, the burden of shortages of health professionals is concentrated among certain populations, particularly rural populations. For example, 20% of Americans live in rural areas, but less than 9% of physicians practice in them.<sup>381</sup> Foreign-trained health professionals partially compensate for this need. They are more likely than American health professionals to practice in rural areas and inner-cities.<sup>382</sup> Physicians from Africa appear to be especially likely to serve in the inner-city poor. Some 93% of physicians from sub-Saharan Africa practice in urban areas, compared to 87% of US-born physicians.<sup>383</sup>

This pattern of international medical graduates in the United States serving in relatively largely numbers in underserved areas is part of a global trend. For example, in the United Kingdom, "Foreign graduates have frequently obtained employment in areas of the country in which British doctors would not live."<sup>384</sup> According to Dr. Carol Rowntree of the town of Sundre, Alberta, Canada, "Traditionally, we have solved our rural physician shortages in Canada by recruiting doctors from other nations."<sup>385</sup> More than half of physicians in the rural Canadian province of Saskatchewan are foreign-trained, including many from South Africa.<sup>386</sup> Canada's medical association reports that Canada's rural areas are short 1,600 physicians.

## Recommendations

### *1. The United States and other wealthy nations should develop strategies to address domestic health professional shortages that minimize reliance on foreign health professionals.*

All relevant stakeholders in wealthy nations should participate in forming a strategy to enable these nations to address their own health professional shortages in ways

that minimize reliance on foreign health professionals.<sup>387</sup> In the United States, these stakeholders include the associations of health professional training institutions (e.g., the Association of American Medical College and the American Association of Colleges of Nursing), health professional associations (e.g., the American Medical Association, the American Nursing Association, and the American Pharmacists Association); state and federal government representatives (e.g., the Department of Health and Human Services and the National Advisory Council on Nurse Education and Practice), health care industry representatives, NGOs (e.g., the National Rural Health Association, patient groups, and representatives from rural and inner-city communities).

Some elements of such a strategy are readily apparent. In the United States, they include increasing training slots for nurses or otherwise increasing the number of graduates of nursing and other health training institutions of health professions suffering shortages. The United States should also enhance efforts to place US-educated nurses and doctors in rural and other underserved areas, ensure that nurses and other health care workers have decent wages and working conditions, and facilitate provide flexible working arrangements.<sup>388</sup> A special task force might be created to address shortages in rural and other under-served areas.<sup>389</sup>

### *2. The United States and other wealthy nations should share their experiences with strategies to address health professional shortages that minimize their reliance on foreign health professionals.*

Nursing education programs have begun to respond to the US nursing shortage with strategies to attract more students, and hospitals are beginning to make efforts to recruit and retain nurses. Nearly half of the US states had created nurse workforce commissions by the end of 2002, and the same number (24) established education loan repayment programs. States have also "considered legislation on nurse staffing plans and ratios." Congress has developed loan repayment and scholarship programs for nurses and used legislation to help "develop career ladders, nurse internships, and residencies and to . . . encourage hospitals to implement best practices."<sup>390</sup>

This multitude of responses suggests the complexity of the problem as well as the solutions. It also reflects the need to develop responses that are tailored to local circumstances. Inevitably, some of the responses will prove more effective than others in increasing the recruitment and retention of nurses. Organizations in a position to do so, possibly the Department of Health and Human Services in the United States and WHO internationally, should collect and share lessons both within the country and with similarly situated countries.

*3. The United States and other wealthy nations should increase efforts to place domestically trained health professionals in underserved areas. In the United States, efforts could include expanding the National Health Service Corps. Strategies could also include reforms in health training institutions, such as increased training in and exposure to rural health and favorable loan repayment programs for those who work in underserved areas.*

Unless wealthy nations make concerted efforts to increase the number of home-grown health professionals who practice in underserved areas, these regions will continue to require a steady stream of foreign health professionals to meet their needs. The United States and other high-income countries should enhance efforts to increase the number of health professionals who provide care to underserved communities.

In the United States, a central mechanism for supporting health professionals in underserved areas is the National Health Service Corps (NHSC).<sup>391</sup> The program's scholarship and loan repayment program supports primary care physicians, nurses, dentists, mental health professionals, and other practitioners who choose to work at an NHSC site in an area that the US Department of Health and Human Services has designated a Health Professional Shortage Area. Currently, some 2,700 NHSC health professionals are helping provide primary health care to 4 million Americans, but some 50 million Americans live in these shortage areas. In 2003, the NHSC had the funds to fill about 1,500 new positions, but it lacked the funds to fill another 2,000 positions in member clinics that could have reached 3 million Americans.<sup>392</sup> NHSC should have the fiscal and other resources it needs to fill all positions as well as to expand into other Health Professional Shortage Areas in which it does not presently operate.

The fiscal year 2005 budget the Bush Administration has proposed is a step in the right direction. After funding for NHSC in 2004 fell from 2003 levels by \$1 million, the Administration is seeking to increase recruitment and scholarship funds from \$124 million to \$159 million, along with continued funding of \$46 million for NHSC's field activities.<sup>393</sup> If Congress ratifies this increase, the \$205 million will represent nearly a 60% increase over fiscal year 2001 levels of about \$129 million.<sup>394</sup> The National Rural Health Association had advocated for \$250 million for NHSC in fiscal year 2002, and has continued to advocate for \$250 million for fiscal year 2005.<sup>395</sup>

The NHSC is a critical program for enabling health professionals to practice in underserved areas. Congress should approve and build upon the Administration's proposed expansion. Yet absent an expansion far more extensive than presently planned, the NHSC will con-

tinue to meet only a fraction of the need, some 27,000 primary care health professionals in approximately 3,000 Health Professional Shortage Areas.<sup>396</sup> Further, strategies are needed to provide for specialty care in underserved areas, so that the very few specialist physicians in African countries are not recruited to serve in underserved areas in the United States. Both government and those outside government must do more.<sup>397</sup>

Health training institutions have a key role in channeling graduates into rural and other underserved areas. Proven strategies include recruiting students from these areas, training residents in rural areas, and promoting family medicine, the most important discipline for rural practice. Health training institutions can also have specific rural training tracks. For example, there are more than 30 approved programs where medical residents spend one year in urban areas followed by two in rural areas, though these programs only graduate one or two physicians per year. The National Rural Health Association reports that problems with funding and accreditation are limiting rural residency programs.<sup>398</sup>

*4. The United States and other wealthy nations should increase retention of nurses and other health professionals for whom shortages exist by ensuring decent wages and safe working conditions, and by implementing flexible working strategies.*

Making the nursing profession more attractive will increase new entrants into the field, help retain nurses, enable veteran nurses to continue to practice, and help bring some retired nurses back for at least part-time work. The market is beginning to respond to the shortage. Hospitals have begun to improve working environments, develop relationships with local nursing programs, and offer nurses hiring bonuses.<sup>399</sup> After wages (adjusted for inflation) for registered nurses decreased slightly from the mid-1990s through 2001, real pay increased in 2002 by 4.9% in hospital and 2.4% in non-hospital settings.<sup>400</sup> According to the article that reported this trend, "The increase in wages in 2002 [undoubtedly] offered an economic incentive for some [registered nurses] to rejoin the labor market and for others to switch from part- to full-time hours or work overtime."<sup>401</sup>

More employee-friendly working conditions should help retain nurses. For example, a survey of 6,000 nurses in the National Health Service in the United Kingdom initiated in 2000 and reported in 2002 "found that 50 per cent of staff had no access to arrangements such as childcare, self-rostering, flexible working or dependants' leave."<sup>402</sup> Ensuring that nurses have access to these arrangements is critical to reducing reliance on foreign-trained nurses in the United Kingdom, the United States,

and elsewhere. Nurses must also be treated with respect, have meaningful opportunities to provide input about their needs, and have their stresses and psychosocial needs addressed.

*5. The United States and other wealthy nations should increase graduates from nursing training institutions, as well as other health training institutions as necessary.*

The National Center for Health Workforce Analysis, part of the US Department of Health and Human Services, recently estimated that from 2000 to 2020, the demand for registered nurses in the United States would grow by 40%, while the supply would increase by only 6%.<sup>403</sup> This is not to say that the United States must increase by 40% the number of nurses it trains. Improved working conditions, more flexible hours, and higher salaries will help increase supply. It is not necessary for the United States to stop employing foreign-trained health nurses altogether, nor is it realistically conceivable that the United States would do so. However, unless this gap is narrowed, in part through increasing the number of nurses that the United States graduates, it is all but certain that health institutions will try to fill this gap with health professionals from countries that can ill afford to lose them.

Some efforts are already underway. "Nursing education programs have developed accelerated degree programs, raised funds for student grants and scholarships, focused on attracting more men and minorities . . . and attempted to fill faculty vacancies."<sup>404</sup> The federal government provides substantial funding for nursing education programs, including assistance with loan repayment. As of 1998, the Nurses Education Act was funding graduate programs that enroll 30,000 annually.<sup>405</sup>

In 2002, Congress furthered its support for nurses by passing the Nurse Reinvestment Act. This act authorizes funds for nurse retention efforts, career advancement programs for nurses, and public service announcements to help encourage people to enter the nursing profession.<sup>406</sup> Programs under the act received about \$142 million in funding in fiscal year 2004; the National Rural Health Association is calling for \$250 million in fiscal year 2005.<sup>407</sup> Funding for nursing education and loan repayment programs, particularly for nurses who agree to work in facilities facing critical shortages of nurses, has been increasing.<sup>408</sup> In all probability, even greater efforts and funding will be necessary from the government, in collaboration with nurse training institutions and other partners.

These efforts are important, but they must be supplemented with increased slots in nursing schools so that students attracted to nursing have a training institution

to attend. In 2003, more than 11,000 qualified applicants for nursing school in the United States were not accepted because of capacity limitations.<sup>409</sup>

## **Recruitment of health professionals from Africa**

Statistics on the extent of the recruitment of health professionals from Africa are even harder to come by than those on the extent of brain drain itself. Authors of an extensive study from 2003 on international migration of nurses perhaps most honestly evaluated the situation by concluding that "it is not possible to assess in detail the relative importance of active and passive recruitment."<sup>410</sup> Passive recruitment occurs when the health professionals themselves initiate the migration process. At the same time, the authors recognize a "growing trend of active international recruitment of nurses by some developed countries," "often on a large scale of 'batches' of 20, 50 or 100 nurses at a time."<sup>411</sup> The growing level of recruitment is recognized elsewhere as well.<sup>412</sup>

A dramatic increase of nurses migrating to Britain from several developing countries over a two-year period suggests a similar conclusion. From 1998/1999 to 2000/2001, the number of nurses from Zimbabwe who registered in the United Kingdom grew from 52 to 382. The number grew from 30 to 289 for nurses from India, and from 52 to 3,396 for nurses from the Philippines.<sup>413</sup> The number of nurses from Malawi registering in the United Kingdom increased from 1 to 75 over the three-year period of 1999 to 2002.<sup>414</sup> While some of these nurses likely initiated contact with employers, it is doubtful that such shifts would have occurred without some precipitating event, such as increased recruitment.<sup>415</sup>

Recruitment is also important for other health professions, including physicians, though again, exactly how important is unclear. The head of the Ghana Medical Association, Jacob Plange-Rhule, has stated, "Our colleagues are just not allowed to make their own decision to leave. They are actually induced to leave."<sup>416</sup> In 2001 it was reported that South Africa's high commissioner in Canada, Andre Jaquet, wrote "to provincial premiers [in Canada], asking them to stop recruiting South African doctors." Only Nova Scotia agreed.<sup>417</sup> Kenya's Health Minister, Charity Ngilu, has also indicated the significant extent the recruitment of doctors and nurses from her country.<sup>418</sup> By contrast, a former US ambassador to Ethiopia has stated, "Very few Ethiopians now living permanently in the United States were recruited by anyone in America. They simply chose to go and then stayed."<sup>419</sup>

Different stakeholders may be inclined to place a different emphasis on the importance of recruitment. Government officials might tend to emphasize its importance,

as significant levels of recruitment both strengthen their claim for reimbursement and diverts attention away from the conditions that make health professionals want to emigrate. Health professionals themselves might be more inclined to emphasize the poor conditions that lead to their decisions to emigrate, focusing on systemic conditions that their government needs to address, rather than on their individual decisions.

Whatever the exact extent of recruitment, it is often a key element in the migration equation. For example, in 1997, after the Alberta Health Ministry placed advertisements in the South African press, a member of the Ministry and a professional recruiter traveled to South Africa to interview respondents to the ads, and even fly them and their families to rural communities in Alberta. The Canadian province succeeded in recruiting more than 40 South African doctors.<sup>420</sup> South Africa has also lost many hundreds of pharmacists to wealthier nations. Albertson's, a large U.S. pharmacy group, has held three recruitment drives in South Africa. Its third, in 2003, induced 600 South African pharmacists to come to the United States.<sup>421</sup>

Recruitment of health professionals often begins with an advertisement, but frequently involves much more. Recruitment agencies commonly are based in a high-income country, but have offices in the targeted countries. One US-based recruiter, which does not actively recruit from Africa, delineated the following strategies: "Print ads, the internet . . . word of mouth, referrals from existing clients, visiting colleges and universities, job fairs, holding our own informational seminars and sometimes visiting hospitals or healthcare facilities, although this method is very infrequent."<sup>422</sup> Overseas agencies may pay local agents to act on their behalf. International health conferences also present a forum for recruiting.<sup>423</sup>

Along with their recruitment function, these agencies will frequently assist their clients with the complexities of migrating. An "enhanced recruitment strategy" may include "facilitation and support with the emigration process, job hunting, school enrollment for children and accommodation, as well as the provision of destination country social support systems."<sup>424</sup> As the US-based recruiter explained, "these offices and having representation on the ground are there not only to simply find people interested in our services but to provide a real service to them and get them through the long and complex process."<sup>425</sup> In the United States, hospitals typically pay recruiting agencies about \$5,000-\$10,000 per nurse recruited.<sup>426</sup> Health care employers do not necessarily use recruitment agencies; they may recruit directly or in concert with other employers.<sup>427</sup>

Along with the complexities of migration, health professionals must also navigate the professional licensing

process. In the United States, graduates of a foreign medical school must present evidence of their graduation from a recognized medical school, pass a series of exams, including an English test, and receive one to three years of training in a US or Canadian hospital, depending on the state.<sup>428</sup> Nurses coming to the United States must also present their education credentials and pass a nurse licensing exam, and generally also pass an exam in English. They must often also pass a qualifying exam in order to take the licensing exam.<sup>429</sup>

## Recommendations

### *1. Developing countries and organizations in developing countries should explore possibilities of limiting recruitment from abroad.*

Given the tardy response of high-income countries to the harm their recruitment of health professionals causes developing nations, low-income country governments should explore options available to them to limit recruitment. For example, they might restrict advertisements of recruiters or limit the number and activities of overseas recruitment agencies, perhaps through a licensing system. Perceived harm to the internationally codified freedom of movement (more specifically, the freedom "to leave any country, including [one's] own"<sup>430</sup>) might deter low-income countries from taking this approach. It need not, however. Limiting the ability of health professionals to learn about overseas jobs – opportunities not even conceivable for the vast majority of populations in low-income countries – is quite different from preventing health professionals from emigrating.

Perhaps less controversially, independent organizations in developing countries should exercise their discretion in engaging in activities that facilitate recruitment. The journal published by the Democratic Nursing Organisation of South Africa, *Nursing Update*, "is overflowing with adverts for nursing positions in the UK . . . Canada, the US, Australia and New Zealand."<sup>431</sup> The nursing organization could refrain from publishing such advertisements. The *South Africa Medical Journal* has an overseas employment section,<sup>432</sup> which the journal's publishers could eliminate this section. Overseas advertising can be important part to journals' revenue,<sup>433</sup> so it may be necessary for them to find additional revenue sources, including possibly foundation or government sources.

While these limitations on information flow may be useful, their impact will be moderated by other sources of information on job opportunities abroad. Even if journals did not advertise opportunities abroad, health professionals could find such opportunities on the Internet. Health professionals could also learn about job opportunities from colleagues who have already emigrated.

*2. The United States and other recruiting countries should end active recruitment of health professionals from developing countries, absent agreement with those countries.*

Most often, the solution to the harm caused by recruitment will be to end recruitment, though there sometimes may be other ways to proceed. In select cases, recruitment might not be harmful. The Philippines and Cuba intentionally produce surplus nurses (Philippines) or doctors (Cuba) in order to send them abroad.<sup>434</sup> A country might conclude that recruitment from certain regions will not harm the health of its population, or that it can tolerate or even benefit from the loss of health professionals through recruitment if it receives adequate reimbursement.<sup>435</sup> A policy of ending recruitment absent agreement, therefore, creates a default that protects the health workforce of developing countries, while being flexible enough to accommodate developing countries that believe they can benefit from a different approach.

*i. Government mandates*

The surest way to establish a recruitment regime where nations recruit only from countries with which agreements exist is through binding government action that restricts recruitment. The form of this action can vary, including legislation, regulation, and binding agreements. In 1995, South Africa committed itself through not to recruit physicians from countries in the Southern African Development Community.<sup>436</sup> This commitment, reported to be effective,<sup>437</sup> is implemented through professional registration controls.<sup>438</sup> South Africa extended its ban to all Group of 77 and Commonwealth countries in 2001, pledging not to recruit doctors or nurses from these countries absent agreement with the country of origin.<sup>439</sup>

Government of wealthy nations should undertake action that, within the national context, will prevent recruitment of foreign health professionals from developing countries absent agreement with those countries. In the United States, where most health care is privately delivered, legislation is required, and the United States should enact legislation to this effect.

Those who support legislation or another appropriate form of government action will have to acknowledge political realities. For example, it may be that a framework where recruitment is permitted only when the source country government agrees is achievable for countries in sub-Saharan Africa, where recruitment agencies might have fewer established interests than in countries like India and the Philippines, where there is significant recruitment.<sup>440</sup> Such legislation would be less than ideal. For instance, India's agreement with Britain prohibits National Health Service recruitment from the four states that receive aid from Britain's Department for

International Development (DFID), suggesting that India cannot afford to have nurses recruited from these states.<sup>441</sup> Furthermore, recruitment would likely be diverted to other countries not covered by the legislation. However, such an approach would at least protect the countries that both face the most severe shortages and whose health professionals are under the greatest pressure due to HIV/AIDS.

Legislatures enacting recruitment bans will have to be cognizant of constitutional law with respect to free speech, which is implicated through restrictions on advertising and other communications from recruiters, but this should not cause a problem. The United States, with the world's most liberal free speech regime, could pass such legislation without constitutional difficulty, based on the US Supreme Court's test on restricting commercial speech. Such restrictions are permitted under the Constitution if the restriction directly advances a substantial governmental interest and is not more restrictive than necessary to serve that purpose.<sup>442</sup> The United States government could easily determine that it has a substantial interest in not contributing to the loss of health professionals from foreign countries where that loss will harm populations abroad. For this would make the United States at least indirectly responsible for the illness and deaths of people abroad.<sup>443</sup> Prohibiting recruitment directly advances that interest, as it precisely addresses the cause of that ill health – the recruitment by American corporations of foreign health professionals. Finally, the prohibition would be no more restrictive than necessary. Countries that determine that their populations will benefit from a recruitment agreement (which might, for example, provide reimbursement) may permit recruitment, so US recruiters will be able to advertise and engage in other recruitment activities in those countries.<sup>444</sup>

*ii. Codes of practice*

There have been several attempts to limit international recruitment of health professionals through codes of practice, guidelines, and statements.<sup>445</sup> The Melbourne Manifesto is such a code, though it is effectively aspirational, delineating clear standards but lacking the mechanisms or authority to get recruitment agencies to comply. Ireland has a guide to ethical recruitment of overseas nurses and midwives that recognizes the shortages of nurses and midwives in some developing countries and “recommend[s] that Irish employers only actively recruit in countries where the national government supports the process.”<sup>446</sup> Ireland has failed to take the further step of turning this “resource for employers” into unambiguous practices to which employers are held to account.<sup>447</sup> The Commonwealth Code, too, would

require further delineation, in this case by Commonwealth national governments, for it to have more than moral force.<sup>448</sup>

By contrast, the United Kingdom's code of practice targets a specific set of recruiters – agencies that recruit for National Health Service employers – and publishes a list of those that are complying with the code.<sup>449</sup> Even the NHS code, however, is less forceful than legislation. Compliance with the code by NHS employers, according to the code itself, is “strongly commended”; it is not mandatory.<sup>450</sup> The code applies only to the NHS; private sector health organizations are outside of its scope.

While rightly criticized as falling short, the experience thus far with the NHS code cannot be dismissed, and it contains important lessons. The criticism stems from the code's apparent lack of impact. The code was issued in October 2001, replacing 1999 guidelines that discouraged recruitment from South Africa and the West Indies.<sup>451</sup> Yet the number of nurses registering in the United Kingdom from South Africa increased from 599 in 1998/1999 to 1,460 in 1999/2000, then fell to 1,086 the following year before jumping to 2,114 in 2001/2002, and dropping to 1,480 in 2002/2003. Nurse registration from other sub-Saharan countries has shown an upward trend since 1998/1999, though in several cases, dropped slightly in 2002/2003.<sup>452</sup>

However, a recent study of the code suggests that NHS employers are largely complying with the code. While the extent of NHS employers' compliance with the code cannot be accessed from available data, none of the NHS employers queried for the study reported actively recruiting from developing countries other than India and the Philippines “in recent years.” Some employers had hired nurses from other developing countries when the nurses had initiated contact with the employers. Key informants interviewed for the study did suggest that newer, smaller agencies might be recruiting from African countries,<sup>453</sup> though it is unclear whether the agencies are recruiting for NHS or the private sector.

Furthermore, even though compliance with the code is not mandatory, the United Kingdom's Department of Health has intervened where breaches of the code have come to light, as when two NHS employers were found to be recruiting from South Africa.<sup>454</sup> Compliance has likely also been enhanced with the January 2003 publication of countries from which recruitment was prohibited absent agreement. Before that publication, some NHS employers felt that they had inadequate guidance as to which countries they could recruit from, and may have considered recruiting from Ghana because of the code's lack of clarity.<sup>455</sup> The NHS also employs international recruitment coordinators to help NHS organizations comply with the code.<sup>456</sup> It may be, then, that

informal monitoring by the Department of Health, the availability of international recruitment coordinators, the clarity that came with the published list of developing countries, and the government's strong backing of the code, have been able to help meet the code's objectives. The exclusion of the private sector, however, significantly limited these objectives.

A significant reason for continued high inflow of nurses into the United Kingdom from developing countries, including South Africa and other African nations, is that the private health sector in the United Kingdom is not covered by the code. Quite possibly, large-scale recruitment into the United Kingdom continues, including from some African countries, but the recruiters are agents for private sector employers. This problem is compounded by the limitation that the code does not prevent NHS employers from hiring nationals of otherwise prohibited countries once they are in the United Kingdom. Many nurses who have been recruited by private sector employers are said to move to NHS employment shortly after registering with the Nursing and Midwifery Council.<sup>457</sup>

No country, therefore, has made a significant effort to encourage private sector recruiters to adhere to ethical recruitment policies. If the United Kingdom were to expand its code to the private sector, or if such a code were to be drafted for recruiters in the United States, that effort would be a first in the area of international recruitment of health professionals. The role of civil society will be particularly important, as the government might not take the same role of assisting in compliance with the code and reporting which agencies are in compliance that Britain's government does with respect to the NHS for the UK Code.

Even if the government does not require recruiters to refrain from operating in developing countries, the government could still support compliance with the code, whether promulgated by the government or by an independent organization or coalition. For example, the government could require recruitment agencies to register and report data on their recruitment practices. This would greatly assist NGOs or other organizations that are monitoring compliance with the code.<sup>458</sup> The government could also encourage compliance more directly by enacting a tax surcharge on recruitment agencies or health care employers who do not comply with the code, or favoring those who comply with the code when issuing government contracts.

Most likely, the importance of government assistance with the code would depend on how costly a halt in recruitment from developing countries would be to the recruiters and health care employers. If the cost is low, a sense of responsibility towards the health of people in

developing countries and the goodwill adherence to the code could generate might be sufficient to convince organizations to sign onto the code. One factor that will determine the cost is the geographic scope of the code. The relatively small and steady stream of nurses from Africa registering in the United States suggests that Africa is presently important to few, if any, recruiters. So if the code is limited to Africa, the cost to recruiters should be relatively low. However, if the code covers a wide region, including such countries as India, from which recruiters and employers are actively recruiting or may want to recruit from soon, more than a sense of responsibility may be required to convince these organizations to adhere to the code.

To the extent the code focuses on Africa, at least for nurses, the code would likely be largely future-oriented. While at present there may be relatively little active recruitment by US recruiters from Africa, the growing nursing shortage in the United States may pressure recruiters to look to Africa in the future. The code could help deter organizations from doing so.

### *iii. Recruitment and the Internet*

Efforts to end recruitment are made more difficult with the advent of the Internet. Health professionals who would like to migrate can find recruitment agencies on the Internet and make first contact with them, without having to first to see an advertisement or receive another form of communication from a recruiter. Even as efforts to end active recruitment in developing countries need to be accelerated, new thinking is necessary on the proper way to address Internet recruitment, which is not targeted at health professionals from any particular country.

### *3. An international strategy on ethical international recruitment of health professionals, grounded in human rights principles, must be developed and adopted at the national level.*

Absent an international understanding on what ethical recruitment entails, and national willingness to act upon that understanding, the effectiveness of national ethical recruitment policies will be limited. In a global marketplace, barriers to migration to one country (such as through a recruitment ban) can be expected to increase migration to other countries, as health professionals who want to migrate would just look for opportunities elsewhere, and recruiters from countries that continue to permit recruitment would fill the void created when those from other countries leave. Precisely this pattern has been reported with South African nurses, who migrated in increased numbers to the United States, Canada, and New Zealand when the United Kingdom's code of practice restricted their recruitment to the United Kingdom.<sup>459</sup> The apparent rapid movement of many nurses from

developing countries who enter the United Kingdom through the private sector to NHS employment also suggests the limitations of a standard that is followed by too few actors.<sup>460</sup> It could just shift the problem.

An international standard will also have an important moral force. An international standard would likely have made it more difficult for most Canadian provinces to ignore South Africa's plea to cease recruiting South African health professionals. It would also serve as an important advocacy tool for civil society or others who seek to persuade their country to adopt an ethical recruitment policy.

If an international standard on recruiting leads more countries to adopt ethical recruitment policies, the standard will help recruiting countries focus their attention on the need to develop their own health workforces. Developed countries will recognize that there are few low-income countries to which they can turn to help meet their need for more health professionals, and further, that even those few countries that permit recruitment do not have an unlimited supply.<sup>461</sup> This will necessitate that they implement strategies to meet their own workforce needs and assist developing countries in strengthening their health workforces to the point where they might be able to permit at least limited recruitment without causing harm to their people's health.

The international standard might come from several sources. The most likely is a code of practice developed by WHO. The 57<sup>th</sup> World Health Assembly requested the WHO Director-General "to develop . . . a code of practice on the international recruitment of health personnel, especially from developing countries."<sup>462</sup> An international treaty is another possibility. The 57<sup>th</sup> World Health Assembly also requested the Director-General to explore "the feasibility, cost and appropriateness of an international instrument" that would "assist in developing fair practices in the international recruitment of health personnel."<sup>463</sup> Or, if such methods were to fail or proceed too slowly, the international standard could come in a more circuitous route, such as through an international drive to get civil society organizations and receptive governments to endorse an existing document. The Melbourne Manifesto is one such document that could become the predominantly accepted standard.

### *4. High-income countries should review their immigration policies to determine whether they contribute to brain drain.*

Health professionals can enter high-income countries through many types of visas, including those related to their skills as health professionals and those independent of these skills. For example, health professionals seeking to permanently immigrate to the United States can seek to enter the country on immigration visas. Three major

types of immigrant visas are employment-based visas, related to the applicant's skills; family-based visas, related to the applicant's relationship to a US citizen or permanent resident, and; visas gained through the diversity lottery, which relates to the applicant's nationality.

Health professionals seeking to migrate to the United States may also enter through non-immigration visas. These are time-limited visas. While not paths to citizenship or permanent resident status themselves, health professionals may apply for permanent residency while in the United States before their temporary visa expires. Common non-immigration visas for health professionals to enter the United States include the J-1 visa, which is for non-immigrants who come to the United States to study, teach, research, or for several other purposes. The H-1B visa is a 3-year visa for people employed in "specialty occupations," which is ordinarily renewable for one 3-year period. The J-1 visa is commonly used by graduates of foreign medical schools who wish to pursue their residency in the United States.<sup>464</sup>

Some immigration policies may contribute to brain drain of health professionals from developing countries. For example, the J-1 Waiver Program allows some international medical students who complete their studies in the United States to waive the requirement that they return to and remain in their country of nationality or last residence for at least two years before being eligible for an immigrant or temporary worker visa.<sup>465</sup> The waiver is not an automatic path to permanent residency. Most recipients of the waiver adjust their status to the H-1B visa. Depending on why they received the waiver, they might be able to apply for permanent residency immediately, or they might have to wait three years.<sup>466</sup>

International medical students can receive the waiver if they are sponsored by an interested federal or state government agency and practice for three years in a federally designated health professional shortage area or medically underserved area. About 2,600 doctors are reportedly in the United States under this waiver,<sup>467</sup> though the number might be higher.<sup>468</sup>

A partial analysis of the countries of origin of J-1 visa waiver recipients suggests that only a relatively few are from sub-Saharan Africa. Of 33 respondents who manage state J-1 visa waiver programs, only two reported Africans as among the top five nationalities of J-1 visa waiver recipients employed in FY2000-2001. One respondent reported employing only South African physicians (the total number is unknown), while another respondent listed Ghana as representing the fourth most important source of waiver recipients. The most popular countries included Pakistan, India, and the Philippines.<sup>469</sup> In 2000, the average state received 18 applications for J-1 visa waiver physicians out of a maximum 20 allowed,<sup>470</sup> a maximum since increased to 30.<sup>471</sup>

In addition to examining such programs as the J-1 visa waiver, Congress should consider whether a special class of temporary visas might be created for foreign health professionals. The special visa could be designed to provide the foreign health professional skills that will benefit their country of origin and might be made attractive enough that health professionals who might otherwise be determined to permanently immigrate to the United States instead apply for the visa. Rather than permanently migrating, which would harm their country of origin, these professionals who receive the special visa would instead gain skills and bring them home, help their country.<sup>472</sup> The special visa might even be linked in some fashion to other types of visas. For example, applicants for certain immigration visas might be given the option of spending a long time on a waiting list for that visa, or receiving the special visa quickly, with some stipulation against permanent migration to the United States for some period of time after the special visa expires.

There is some reason to believe that facilitating brief visits by foreign health professionals could be beneficial and discourage permanent migration. Giving nurses the opportunity to periodically spend several weeks abroad might be a strong incentive to people to enter nursing as a career, as it will let them travel and see the world. A South African health care corporation, Network Healthcare Holdings, has projects in the United Kingdom that nurses can work on for four to six weeks, an incentive the company is offering in an effort to keep nurses in South Africa.<sup>473</sup> Or a short time abroad might provide enough of an income supplement to enable health professionals to continue to work primarily in their home country.<sup>474</sup> A slightly longer period abroad might enable nurses to earn enough money to pay a mortgage back home, or perhaps purchase a car, and so make life at home, in Africa, more comfortable and attractive. A danger that must be considered when deciding whether to initiate programs of this type are whether these programs may end up encouraging migration by exposing health professionals to well-equipped, high-technology health care environments that they will not want to leave, or that they will be tempted to return to as soon as they can find the opportunity to do so.

Another linkage that might be considered is that between the J-1 visa waiver program and the diversity visa lottery, in which 50,000 permanent residency visas are made available annually to people from countries with low levels of immigration to the United States.<sup>475</sup> Perhaps if international medical graduates were made ineligible for the J-1 visa waiver program, that country's representation in the diversity visa lottery could be increased, so as to prevent an overall drop in immigration from that country.

Altering the immigration regime is largely a taboo subject in discussions of brain drain, and will immediately face protestations of restricting freedom of movement. It may be that any form of visa restrictions targeted at foreign health professionals from certain regions would be unwise. However, without open discussion of the topic, it will remain a mystery whether the immigration regime could be adjusted in a way that reduces brain drain of health professionals while respecting human rights principles, and even benefits the applicant health professionals themselves or immigration-seekers from developing countries more generally.

*5. High-income countries that host health professional migrants from low-income countries should develop strategies to help ensure that their experiences contribute to their ability to provide high-quality care when and if they return to their countries of origin.*

Organizations in high-income countries that employ health professionals from developing countries, along with government bodies, NGOs, and other groups, should seek to minimize the harm caused to health in the health professionals' countries of origin, or even turn a temporary loss into a benefit for those countries. They should develop strategies to help those health professionals gain experience, skills, and knowledge that will increase the quality or range of health services that they can provide when and if they return to their country of origin. For example, in the United States, qualified organizations should develop programs to provide these skills as part of physicians' continuing medical education requirements. These programs should be offered at low or no cost to encourage participation. State medical boards could also encourage health professionals to participate in these programs. They might, for example, highlight these programs in informational material about continuing medical education, or the boards could double count hours spent in these programs, making them a very efficient and so attractive way to meet the continuing medical education requirement.

*6. The effects of offering high-income country medical or nursing licensing exams for foreign health professionals in or near their home countries should be monitored for their impact on migration.*

Several organizations central to licensing foreign-trained doctors and nurses to practice in the United States offer exams in several African countries. To receive a medical license to practice in the United States, foreign health professionals must pass the US Medical Licensing Examination. For international medical graduates (other than

Canada), the exam is offered through the Educational Commission for Foreign Medical Graduates. The Commission offers the exam at test centers in Ghana, Kenya, Mauritius, South Africa, Uganda, and Zimbabwe, as well as sites in Asia, Latin America, and the Middle East.<sup>476</sup> The Commission on Graduates of Foreign Nursing Schools offers qualifying exams to foreign-trained nurses to access nursing and English language proficiency. This is in effect a screening exam, and less than one-third of those who take the exam qualify for the certificate. Those who fail to get the certificate are less likely to try to take the nurse licensing exam and will have a more difficult time receiving a visa to the United States.<sup>477</sup> The Commission on Graduates of Foreign Nursing Schools offers the exam overseas, including in Ghana, Kenya, and South Africa.<sup>478</sup> The nursing licensing exam, administered by the National Council of State Boards of Nursing, is presently offered only in the United States. However, as early as January 1, 2005, it will be offered in up to three still-to-be-determined overseas sites, a number that could increase with time.<sup>479</sup>

Enabling nurses and physicians to take their exams in or near their home countries could well accelerate migration by making it easier for them to take them exam. At least in the case of nurses, however, it is possible that offering the screening exam. Meanwhile, there is anecdotal evidence that many foreign-trained nurses who migrated to the United States with their families and fail the nursing exam the first time remain in the United States and take the exam until they pass, often working as nurses' aides in the meantime.<sup>480</sup> Perhaps if they had not made the investment of traveling to the United States, if they could have taken licensing exam nearer home, the nurses would not have been so persistent. The effects on migration of offering these exams overseas should be studied.

Even if the result of the studies are that offering the nursing and physician exam overseas encourages migration, challenging policy choices will still have to be made. It may well be appropriate to stop offering the test overseas (or possibly, in the case of the nursing licensing exam, not offering it in African countries or certain other countries in the first place) to discourage this migration, but several other factors must be taken into account. One is the hardship that that offering the exams only in the United States could cause nurses and physicians. This hardship would be particularly troubling if the health professionals must return to Africa significantly poorer than before because of the travel and associated costs of taking the exam. Nonetheless, if the effect on migration is significant, that might well outweigh the hardship factor. Another variable is that physicians need to take the medical licensing exam to pursue residency programs in the United States,<sup>481</sup> which could be important for bringing

advanced medical skills to developing countries – though it also is a significant channel for brain drain. If testing centers are located overseas, attention should be paid to the effect lead the facility could have on nurse emigration, not only that particular country.

## Reimbursement

A resolution that the 57<sup>th</sup> World Health Assembly passed in May 2004 moved to a new stage the debate over the appropriateness of wealthy nations compensating poorer countries for their loss of health professionals to those high-income countries. By requesting that the WHO Director-General support the “examination of modalities for receiving countries to offset the loss of health workers, such as by investing in training of health professionals,” the world’s most inclusive inter-governmental body changed the terms of the debate over reimbursement from whether it is appropriate to how it should be accomplished.<sup>482</sup> Also at the 57<sup>th</sup> World Health Assembly, wealthy nations agreed to compensate members of the African Union for health professionals lost to those nations.<sup>483</sup>

## Recommendation

*A. Wealthy nations should reimburse developing countries for the training costs and health impact of health professionals who migrate from developing to developed countries.*

A central yet challenging question on reimbursement is how much it should be. A typical view is that reimbursement should cover for the cost of the medical training of the health professional,<sup>484</sup> but in fact, it should be more. Dr. Kgosi Letlape, chair of the South African Medical Association, has proposed that reimbursement should be twice training costs, to both compensate for the health professional who migrated and to pay the training costs for a replacement.<sup>485</sup> While the reimbursement for the emigrated health professional could pay the training costs of a new health professional, this formula has the merit of incorporating both reimbursement for the direct transfer of value from low- to high-income countries and a forward-looking element that recognizes the point of reimbursement is not simply to compensate a government, but to improve people’s health. It is an easy-to-apply reimbursement formula that correctly exceeds the cost of the medical education and perhaps could be utilized until a more exact formula is developed.

The perfect reimbursement mechanism would take into account full effects of brain drain. The medical education costs alone would not fully compensate the source country in terms of the most important measure, which is not the financial loss, but the health impact. Training a

new health professional to take the place of the one who emigrated will take years, and in the meantime the health of the population will suffer. The health impact will also create a financial loss.<sup>486</sup> Even then, developing countries may be left with fewer health professionals than they would have had absent brain drain. The ideal reimbursement mechanisms would include investments to redress these effects. A less exact but perhaps more practical measure of reimbursement would translate the health impact into economic terms through the measurement of lost productivity due to death and disability. In addition to training and health costs, reimbursement might cover other losses to low-income countries, such as lost tax revenue.<sup>487</sup>

The mechanism will have to factor in the migration within Africa.<sup>488</sup> A health professional might be trained in Kenya, move to South Africa, and later proceed to the United States. Does the United States reimburse Kenya, the country of training, or South Africa, the country of last residence? It would probably be most reasonable to focus on the country of training. Otherwise reimbursement money would be distributed disproportionately to wealthier developing countries, such as South Africa, while poorer developing countries suffering from brain drain would receive very little in reimbursement funds (unless, in this example, South Africa were to compensate Kenya, and the United States compensate South Africa). This proposition might have to be nuanced to be the health professional’s country of citizenship at time of training, otherwise countries that lack medical or other health training institutions would never receive reimbursement, although they are harmed by brain drain.

The reimbursement mechanism should put the full amount of the reimbursement funds back into the health system (and, as appropriate, the education sector). Reimbursement would not encompass the full obligations of wealthy countries with respect to their monetary response to brain drain.<sup>489</sup> They would continue to be obligated to provide the financial, technical, and other assistance required to help address root causes of brain drain, such as lack of supplies and medicine, inadequate salary and benefits, and unsafe working conditions.

Reimbursement might take one of a number of forms, or a combination of them. It could be a pool of foreign aid targeted largely to health training institutions so that they can graduate more health professionals, making up for those who left. Or, reimbursement funds could be added to other foreign assistance to meet the needs of health care workers and the communities they serve in low-income countries, with the reimbursement funds allocated to countries based on reimbursement owed them. So long as this approach does not lead high-income countries to skirt additional foreign assistance

obligations under human rights law, it may be preferable. It has the advantage of enabling countries to use the additional funds to meet their health priorities.

Some observers fear that if reimbursement is provided as part of a larger foreign assistance package, the money would be lost to corrupt governments. To prevent that, all foreign assistance should be provided in a transparent manner with sufficient accountability mechanisms built into the delivery of the assistance. For recipient countries with poor governance, directly funding health-related institutions, particularly training institutions, might be appropriate. This funding could come directly from the high-income country government or could take the form of twinning, partnerships between health institutions in the high- and low-income countries.

High-income countries might raise funds for reimbursement differently from other funds for foreign assistance. They might, for example, levy a tax on the health sector organizations that benefit from or contribute to the conditions that result in a shortage of domestically trained health professionals, and on those whose policies must change in order to reduce the domestic shortage. The former include health care corporations that would have to pay higher wages and enhance working conditions to attract more domestic workers; the latter include health training institutions that need to train more students. Policymakers should take care to avoid a tax that would fall most heavily on health care employers that serve the urban and rural poor. Because of their difficulty attracting domestically trained health professionals, rural and inner-city health care facilities are most likely to employ foreign-trained health professionals. It would be wrong, though, to place the weight of paying for brain drain on the underserved populations of wealthy nations.<sup>490</sup>

## C. HUMAN RESOURCES PLANNING AND MANAGEMENT

### Human resources planning

The building block of good planning is good information, but in most of Africa, information is sorely lacking. To develop plans to increase health system access, it is necessary to know the current status of all health facilities, including their conditions, capacities, and needs. It will be little use to focus excessively on constructing new facilities to expand access to health care when existing health facilities cannot provide people in their catchments area adequate health services. It is also necessary to know staffing capacities, so that new facilities are not constructed without any way to staff them.

Few areas are more in need of better data than human resources for health.<sup>491</sup> Data on the very number of doctors, nurses, and other health personnel a country has is often years out of date, or based on rolls that include

health professionals who have left the country or even the profession.<sup>492</sup> Countries may lack information on the loss of health professionals, whether to another country, the private sector, another profession, or death. A study on human resources for health in Malawi concludes, “Improving the [human resource] information systems to improve data quality and coverage in order to allow more accurate monitoring and strategic planning for [human resources] for health is clearly a priority.”<sup>493</sup>

### Recommendations

*1. African countries should undertake comprehensive and detailed surveys of their health infrastructure to better understand what needs exist and how to best meet them. Donors should provide technical and financial assistance as required.*

Health planning at both the national and local level will be facilitated if countries have accurate information about the current state of their health systems.<sup>494</sup> Countries that have not undertaken such surveys should do so. The surveys should include both physical and human infrastructure. Planning for the two types of infrastructure must go hand-in-hand. Comprehensive health infrastructure surveys and maps must incorporate both types of infrastructure. The surveys should also include NGO, faith-based, and private health facilities, as their location, quality, and accessibility are an important part of the overall health system and will impact utilization patterns and needs of public health facilities.

Surveys will identify gaps in health infrastructure, and enable resources to be directed to those gaps. A comprehensive picture of the health system will enable effective priority planning and resource distribution. Solutions to problems at the district and even facility level should emerge from the survey. Health workers interviewed can state their needs, which may reveal or lead to solutions to health system problems. For example, the cure rate for tuberculosis is unexpectedly low in Eastern Cape Province in South Africa. The head nurse at a hospital in the province stated that health workers might be able to learn what the problems are if they were able to visit their patients and see their home environment. However, they lack the cars to do so.<sup>495</sup>

This exercise could also be useful as a means of empowering health workers. Health workers may rarely have the opportunity to express their needs, much less have them addressed. If the maps of a health system’s present capacities and needs are accompanied by a genuine national commitment to develop the strategies and devote the resources to meet these needs, and as a result of the survey health workers have at least some of their expressed needs met, health workers will see the benefit of articulating their needs. This

might spur health workers to be more forceful advocates for their needs in the future.

*2. African countries should develop national maps and databases of their health workers. The maps and databases should be regularly updated. Donors should provide technical and financial assistance as required.*

In conjunction with a comprehensive mapping of health infrastructure, African countries should pay particular attention to their human resource capacities and needs. An understanding of a nation's human resources for health, including types of health workers and where they are deployed, is critical for rational human resources health planning, as well as for evaluating interventions to help recruit and retain health workers.

Understanding the current human resources situation will enable health planners to make better use of personnel by redeploying them to help equalize their distribution, ensuring more optimal skills mixes at health facilities, and providing training to meet identified skill gaps. Up-to-date information on health personnel will allow vacancies to be filled more quickly. An understanding of the present skills mix and attrition patterns will enable re-orientation of pre-service training to meet the most pressing skills gaps.<sup>496</sup> If managers are given greater flexibility to promote, fire, and otherwise reward and punish workers based on their performance, and have the training to appropriately use this flexibility, information on human resources for health will enable policy designers to see how managers are using this flexibility, and whether it is strengthening or weakening the health workforce. The database and related information can also be used to evaluate interventions that help retain and recruit health workers. For example, what effect are new salary and benefits packages or new human resource management policies having?<sup>497</sup>

Possibly through exit interviews, information should also be collected and retained on why health workers leave their jobs, whether they left because of death, emigration, retirement, or another reason. Understanding health worker attrition is critical to designing and prioritizing interventions to prevent it. How important is international recruitment of health workers, for example? Why are health workers retiring? Perhaps flexible hours or part-time opportunities could help retain retiring health workers. Information on why health workers are leaving could be enhanced if, upon their departure, they fill out a survey about why they are leaving, and this information is recorded in a database.

If the database can include contact information, including those health professionals who have emigrated, it could have additional uses. For example, African countries could encourage émigrés to contribute

their skills or resources to the health needs of these countries. This information will also open up other possibilities to African countries, such as taxing expatriates, a common practice of high-income countries.<sup>498</sup>

*3. Low-income countries should study what health workers require to keep them in the country and public sector, and what incentives or policies would encourage them to work in rural areas.*

Unless surveys or other studies have been conducted to determine just what these local needs are, it may be necessary for countries to conduct interviews, focus group discussions, and other forms of investigation to determine the needs of health workers and what is required to keep them both in the country and in the public sector. The results should inform health system investments and reforms, as well as targeted incentives to encourage health professionals to work in rural areas and to remain in the country and in the public sector.

*4. WHO efforts to develop an international human resources database should receive the full support of the international community.*

WHO has embarked on four projects that should result in a new international database of human resources for health. The projects are developing a global directory of health training institutions, a world health survey, detailed health staffing assessments in six countries, and a meta-database on sources of health care staff. This last project should facilitate meaningful international comparisons. Presently, differences in how information on health personnel are categorized and shortcomings with the information itself, such as the failure to disaggregate information on nurses by type of nurse, along with a dearth of information, make such comparisons difficult.<sup>499</sup>

A better understanding of the international human resources for health situation will enhance the ability of countries to learn from their counterparts, and adapt successful practices to their own circumstances. These practices might focus on recruiting and retaining health professionals, on changing the roles of existing cadres, or on creating new ones.

*5. African countries should develop or, if necessary, revise national plans on human resources for health. The plans should be designed to produce and retain the numbers of health personnel, in the appropriate skills-mix, required to meet the health needs of the population, including anti-retroviral therapy and scale-up of other health interventions. Special care should be taken to ensure that the plans will meet the health needs of rural and other underserved populations.*

In or about 1999, the WHO Regional Office for Africa established the goal that by 2004, all 46 countries in the Region would “have developed a policy for human resources development for health.”<sup>500</sup> These plans must indeed be developed. The planning process should be widely participatory, including health workers from the public, NGO, faith-based, and for-profit sectors, and leaders in urban, rural and other underserved areas. The planning process should also draw on international expertise, including from WHO.

The planning process should be certain to include three areas often missed during planning processes about health workers in Africa: 1) a realistic assessment of the types of health workers most needed based on an analysis of the country’s disease burden; 2) an evaluation of the size of a sustainable health workforce and the appropriate skills mix, along with the relationship with the network of health facilities, and; 3) the role of the private sector and its interaction with the public health sector.<sup>501</sup> It may be necessary for existing strategies to be revised based on these considerations.

*6. WHO should develop and disseminate good practices in health sector human resources planning and management. Wealthy WHO member states should provide WHO the necessary financial support to carry out this and other activities that are part of the organization’s promotion of human resources and health systems development.*

Countries will have much to learn from one another in developing and implementing successful human resources for health strategies. WHO can facilitate this learning process by collecting and disseminating good practices in human resources for health planning and management. As part of its 3 by 5 treatment initiative, WHO does plan to “develop guiding material based on the comparative analysis between countries identifying similarities, differences and good practices” for human resource practices in scaling up anti-retroviral therapy.<sup>502</sup> WHO can also create networks of health systems human resource managers to directly share with one another their successes and failures.

WHO will likely require additional resource to collect and disseminate these good practices, and to provide other technical assistance that will support human resources for health in Africa and other areas of the developing world. WHO members in a position to provide these resources must do so.

## **Human resources management**

Good human resources management has the potential to significantly increase staff morale, and so encourage health professionals to remain in the country and in the public health sector. One factor that can contribute to

brain drain is a lack of options for career development, as mentioned, for example, in focus group interviews with South African nurses, as well as by WHO.<sup>503</sup> A well-capacitated human resource management system can help address this need by establishing well-defined career paths.

Active human resource management can help mitigate the inadequate supervision and high workloads that contribute to health professionals’ decisions to emigrate or leave the public sector. Strong human resource management can ensure that supervisors are in place, trained, and have the tools to do their jobs. It can also establish and revise job descriptions, reallocate staff, ensure the availability of psychosocial support, and otherwise ease workloads. Human resource managers can also help develop increased salary and benefits packages while ensuring that they are perceived as fair across cadres.

Strong human resource management will also be needed to plan and implement new human resource policies. For example, responses to the severe shortages of health personnel may include creating new cadres of health professionals, revamping pre-service training policies, and new strategies for retaining health workers, all of which will require good planning and management to succeed.

## **Recommendations**

*1. African countries should strengthen their health ministries’ capacity for human resources planning and management. Donors should provide technical and financial assistance as required, including loaning health ministries personnel if necessary.*

It has been recently estimated that in Malawi “there are less than six people in the civil service who are trained and specialised in human resource planning.”<sup>504</sup> An official with the WHO Regional Office for Africa, Dr. A. Gbary, reports that “Ministry of Health [human resources for health] departments were inadequately structured, skilled and equipped.”<sup>505</sup> These human resources for health departments or divisions might not have the authority or mandate to carry out more than routine personnel administrative functions.<sup>506</sup>

Given this lack of capacity, it is little wonder that health ministries have been unable to collect good data on their workforce, or that they may have ineffective human resource policies. A priority of donors should be to strengthen the capacity of health ministries to plan and implement effective human resources for health policies. This will entail training current and new health ministry staff, ensuring that they have the tools, authority, finances, supporting staff, and information to do their job, including strategic planning, and possibly restructuring health ministries or departments within

them. Strong human resource departments within health ministries is especially important now because creating strategies to significantly increase retention and recruitment of health workers will require policy changes and new policies. Even well-designed policies could fail without adequate capacity to implement them.<sup>507</sup>

*2. African health training institutions should incorporate human resources for health into their pre-service training curricula.*

To ensure that in the coming years African health ministries and facilities have adequate numbers of people trained in human resources for health, issues in human resources should be incorporated into pre-service training curricula for health professionals. WHO's Department of Health Service Provision recently undertook an educational strategy review with the aim being "to learn from proven good practices, and to brainstorm new standards, current needs, appropriate quality assessment and curriculum improvement, and then to propose new strategies in the field of education of" human resources for health.<sup>508</sup> The review was to have been completed by 2003. This review should inform African health training institutions as they review their own curricula and evaluate ways to incorporate human resources for health issues.

*3. African health ministries should assess and revise their human resource policies.*

Improved human resource policies could increase health worker morale and enhance service delivery. Many policies, such as better salary and benefits packages, are discussed elsewhere. Other policies include ensuring that health workers have clear job descriptions, receive annual performance reviews, and are regularly informed of changes in health policy.<sup>509</sup> Governments must reform human resource policies to focus on the necessary skills-mix and health services required, and not place "undue emphasis on the numbers of workers in the civil service."<sup>510</sup> Policies will also frequently need to be revised in light of the demands HIV/AIDS places on the health system, including for delivery of anti-retroviral therapy. For example, the numbers and type of health personnel required may change, and new categories of health workers and modalities of care may need to be developed.<sup>511</sup>

Countries should also consider moving towards performance-based policies, where health workers receive feedback on their performance and are rewarded for good performance, and can be sanctioned for poor performance. Such performance-based policies have been found to increase worker morale.<sup>512</sup>

*4. African countries should avoid committing themselves to liberalizing trade in health services, in par-*

*ticular the services of doctors, nurses, midwives, and other health personnel, under the General Agreement on Trade in Services (GATS). The World Trade Organization (WTO) Secretariat should educate trade officials from developing countries on the potentially negative consequences of committing to the GATS regime for these services.*

Health sector human resource managers and policymakers should be afforded the flexibility they require to develop the strategies needed to recruit and retain health personnel. External constraints on their ability to develop such policies should be minimized. One potential impediment to policymakers' ability to design and implement such policies is the General Agreement on Trade in Services (GATS). If a state commits to liberalizing trade in health services, and in particular in health personnel, its ability to formulate policies necessary to retain these personnel could be impeded.<sup>513</sup> This is not a risk that African countries can afford to take.

Fortunately, "the section of the agreement dealing with movement of professionals . . . has been little used, especially by developing countries," with the exception of India.<sup>514</sup>

WHO is aware of this possible constraint. In 2004, the 57th World Health Assembly requested that the WHO Director-General, in cooperation with organizations including the WTO, "conduct research on international migration of health personnel, including in relation to trade agreements . . . in order to determine any adverse effects, and possible options to address them."<sup>515</sup>

Trade officials in Africa might be unaware of the potential consequences of subjecting services of health professionals to the GATS regime. It is important that they understand the consequences, and do not lightly commit their countries to GATS obligations for trade in the services of health professionals, or of health-related services more generally. Therefore, the WTO, possibly in concert with WHO, should educate trade officials from developing countries on the consequences (including possible adverse effects) of committing to the GATS regime for these services.

*5. Where possible, health facilities in Africa should employ managers trained in human resource management.*

Health workers need an advocate. Health facilities should employ a human resources manager who not only manages the logistics of human resources, such as ensuring that health workers are paid on time (itself a very important task that can affect morale), but also to advocate for health workers' needs both within the facility and to higher authorities. This may entail training current staff who handle human resource issues, such as payroll, to assume these other responsibilities.

6. *African countries should ensure that they have efficient recruitment and placement procedures for posts in the public health system.*

Civil service procedures may needlessly hinder the efforts of new health professionals who do desire to join the public health system. These procedures may force graduates to wait many months before they are recruited into public service. These procedures should be streamlined.<sup>516</sup> Otherwise, posts in the public health system are left vacant for an unnecessarily long time, and new health professionals may be deterred from serving in the public sector if their introduction to it is one of bureaucratic delays.

7. *Donors should maximize coordination so as to minimize unnecessary work for health system managers.*

A long-standing need for more effective and efficient foreign assistance programs is increased donor coordination. This need applies to assistance and other policies that pertain to health sector human resources. This coordination, including in monitoring and evaluations<sup>517</sup> and in the process of selecting health system priorities for which donor assistance will be used, will help ensure that all needs are addressed and will enhance recipients' ability to manage the assistance. This coordination should also minimize duplication, which represents a waste of human resources that the countries receiving the aid cannot afford.

## **D. SOURCES FOR MORE HEALTH CARE WORKERS**

One principle guiding this plan to action is that for many or most African countries, the shortage of health workers cannot be solved only by retaining more health professionals. The severity of the shortages requires stronger health training institutions that are able to produce more graduates, as well as innovative strategies to meet the needs for trained health workers even before brain drain has been reduced and health training institutions are able to produce a steady stream of new health professionals. This need is particularly great in light of a growing demand for trained health workers as countries gear up to introduce AIDS treatment and meet the health-related Millennium Development Goals. Health workers are also needed to replace those who have died of causes related to HIV/AIDS.

The need to increase health professional training capacity is well-recognized,<sup>518</sup> as is the need to look to new types of health workers and new roles for health workers. Zimbabwe's Minister of Health has placed significant pressure on the University of Zimbabwe's medical school to significantly increase its production of doctors,<sup>519</sup> and Botswana is set to open its first medical

school in 2008.<sup>520</sup> Malawi has re-introduced the mid-level nursing cadre of enrolled nurses and South Africa is training community health workers to provide home-based care to HIV-positive people. Zambia has amended a law that had prohibited nurses from prescribing medication and performing invasive procedures.<sup>521</sup> Countries will have to draw upon a variety of strategies to increase their number of health workers, as well as to maximize the productivity of existing health workers.

## **Supporting health training institutions**

Support for health training institutions, such as nursing and medical schools, is essential to increasing the number of health professionals in African countries. Support is needed both to increase the capacity of the schools so that they can train more health professionals and to improve the quality and relevance of the training students receive.

## **Recommendations**

1. *The United States and other donors should provide funding for salary support and other incentives to educators at medical, nursing, public health, pharmacy, and other health training institutions to promote recruitment and retention of trainers.*

One factor limiting the ability of health training institutions in some African countries to increase the number of graduates is a shortage of teachers.<sup>522</sup> In Ghana, brain drain of academic health professionals is harming that country's ability to train new health professionals. In Malawi, a shortage of teachers in nursing colleges was one reason for these colleges' low student uptake in the early 2000s.<sup>523</sup> The University of Zimbabwe reportedly stopped admitting new pharmacy students because of a lack of lecturers, many of whom had left the country.<sup>524</sup>

Meanwhile, the University of Zimbabwe appears set to increase its medical school enrollment, but at the cost of the quality of education it provides. The medical school faculty sought to reduce its enrollment from 120 to 70 students because of a shortage of lecturers; the University of Zimbabwe was operating with fewer than 50% of its lecturers.<sup>525</sup> Yet Zimbabwe's health ministry directed the medical school to triple the number of students it graduates. Professors expect that the result of increasing enrollment will be to decrease the quality of education students receive, at least in part because only the most assertive students will receive attention.<sup>526</sup> It appears likely that under strong political pressure to increase enrollment, the medical school will enroll about 160-180 students in the semester beginning August 2004.<sup>527</sup>

To help retain trainers and aid in the recruitment of new teachers, incentives should be devised to help retain and recruit trainers, lecturers, teachers, and other faculty at health training institutions. As for health professionals generally, these incentives could take many forms, both monetary and non-monetary. The United States and other donors should help fund these incentives.

*2. Health training institutions in the United States and other high-income countries should develop partnerships with health training institutions in Africa and other regions of the developing world that are facing faculty shortages and offer trainers (professors) on a per semester or annual basis. Governments of high-income countries should, as needed, facilitate these partnerships or separately support trainers through its own programs.*

It may take several years before improved salary and benefits succeed in raising the number of faculty at health training institutions to sufficient levels. In the meantime, health training institutions in the United States and other high-income countries can help alleviate this shortage by loaning educators to counterpart institutions in low-income countries that face shortages of trainers.<sup>528</sup> The trainers could be loaned for one or several semesters, with the high-income country institution paying all associated costs. It will often be appropriate and desirable for the health training institutions in high-income countries to provide other assistance beyond trainers themselves. A high-income institution should transfer or enhance technology available in the low-income country training institution, contribute to its library, help fund the rehabilitation of its facilities, or otherwise help increase the number of students the facility is able to train and the quality of education it is able to provide.

High-income country governments could, if needed, facilitate this twinning process. For example, if the educators' own institutions are unwilling to pay their cost, the high-income country government could pay travel expenses and a stipend. Or governments could help match high- and low-income country institutions. Where possible, to help ensure continuity, trainers should be selected who commit to reside permanently in the country where the training institutions are located (possibly members of the African diaspora), or those who are able to make a multi-semester time commitment. The universities to which the trainers belong should ensure that this time abroad will not affect the professors' chances to receive tenure.

As part of its bilateral AIDS program, the United States plans to use volunteer American health professionals as one strategy to meet training and other needs. The US Office of the Global AIDS Coordinator should

hold open the possibility of using the volunteer health professionals to assume training roles in African health education institutions. Depending on the institution's needs, they might provide courses on anti-retroviral therapy or other AIDS-related subjects, or they might teach other subjects.

American and other non-African health professionals will likely be better prepared to teach some courses than others. At present, with curricula in African countries generally based on European models, there will be significant overlap between the expertise of educators from high-income countries and the training needs of African health training institutions. If health professional training curricula in African countries are revised to be more relevant to population needs and to actual practice conditions, as they should be, some of the overlap between training needs and expertise of foreign educators will be lost. However, there should still be numerous areas where health professionals from abroad will be able to lend their services, including general sciences courses and AIDS. Health professionals and other educators from high-income countries with significant experience working in developing countries or with diseases or conditions common in those countries could potentially teach a wide-range of courses. Where possible, though, local educators should lead in teaching courses that rely on local knowledge.

*3. The United States and other donors, in collaboration with American and other high-income country health training institutions, should support distance learning in health training institutions in African countries and other parts of the developing world.*

Particularly where efforts to increase the number of educators are inadequate or will not come to fruition quickly enough to meet immediate training needs, African health training institutions should explore the possible role of distance learning.<sup>529</sup> This would allow, for example, a professor in another country to teach a class in the country experiencing a shortage of educators, and to communicate with students via e-mail and the Internet. Distance learning is an area ripe for South-South collaboration, where a better-resourced African institution could assist an African institution that has too few faculty members. While donors might assist with the technological costs, and while in some cases – such as in courses on anti-retroviral therapy – it might be expected that the professors participating in the distance learning might be from the United States or other high-income countries, in general the professors involved could be located in other African countries, or even other institutions within the same country. Potentially, regional networks of distance learning can be estab-

lished. Distance learning has the potential of enabling quality education with fewer in-person trainers.

*4. The United States and other donors should assist African countries in increasing investment in their health training institutions to enable them to raise the numbers of health professionals they graduate annually.*

Along with assistance meeting needs for more faculty, the United States and other donors will have other means of supporting African health training institutions. For example, they could pay to improve library collections, ensure full Internet connectivity, and ensure that laboratories have functioning equipment;<sup>530</sup> shore up the physical infrastructure of the training institutions and ensure teachers have adequate and up-to-date material;<sup>531</sup> expand health training institutions to enable them to teach and house more students, and fund operating costs.

Where necessary, African health training institutions should consider temporary measures to expand capacity, even as more permanent steps are underway. Along with using foreign health professionals as trainers or utilizing distance-learning, other possibilities include: “contracting an institution from another country to deliver courses in [the country]; . . . hiring additional rooms to reduce the need to wait for more lecture rooms to be built; taking day students to reduce costs and the need for student accommodation; [and] doubling up courses so that teaching resources are maximally used.”<sup>532</sup>

*5. Countries in Africa and elsewhere that have few or no medical schools should evaluate whether they can meet their human resources for health needs with their current health training institutions and through foreign institutions at which their nationals train. Where they cannot, the United States and other donors should assist in funding new training institutions.*

The nearly four dozen countries of sub-Saharan Africa have a total of only approximately 87 medical schools. Eleven sub-Saharan countries have no medical schools at all, and fully two dozen have only one medical school.<sup>533</sup> Students from countries without medical schools train students abroad. South Africa is an important regional center for southern African countries without their own medical schools. Namibia, for example, has no medical schools, so all doctors and specialists receive their training in foreign countries, including two-thirds in South Africa.<sup>534</sup>

Countries that are unable to meet their training needs through their own or foreign training institutions should consider constructing and opening new schools of medicine, nursing, and allied health professions. When deter-

mining whether to open new schools, they should do so with as clear an understanding as possible of their long-term health personnel needs.<sup>535</sup> When planning these schools, countries should also develop strategies to ensure that they will have the staff and equipment necessary to operate effectively.

Regional medical training institutions can also be created and expanded. For example, the Medical University of Southern Africa, located near Pretoria, South Africa, is a major training center for students in the countries of the Southern African Development Community,<sup>536</sup> responsible for training more than half of the doctors in Southern Africa, along with many specialists. The University houses about 3,000 students.<sup>537</sup> Similar institutions spread throughout Africa could contribute significantly to increasing the number of African health professionals.

If a health training institution’s location can affect the proportion of graduates who practice in rural and other underserved areas, then locations that increase this proportion should be favored. For example, one might assume that locating a medical school in a rural area, by exposing students to rural medicine, will lead to more doctors practicing in rural areas. Research should be conducted to determine whether this is the case.

*6. African countries, with the support of the United States and other donors, should increase investment in secondary education, especially science and math programs, to increase the pool of students prepared to enter health training institutions.*

Inadequate production of health professionals in some countries is at least partially attributable to failings in general education, which do not produce enough candidates qualified for admittance to health training institutions.<sup>538</sup> It may be particularly important for countries lacking sufficient numbers of qualified candidates to increase investment in secondary education, and especially secondary school math and science education, and even math and science education at the primary school level.<sup>539</sup> Recognizing its own need in this area, Malawi has increased investment in math and science courses in secondary education.<sup>540</sup>

*7. A portion of donor funding for in-service training should be shifted to pre-service training.*

Most foreign assistance for health worker training is currently channeled to in-service training. Funding for in-service training can be relatively high. The funds that donors spent on health-related in-service training in Malawi in fiscal year 1997, \$4.5 million, could have been used to provide a 50% salary increase that year to each of Malawi’s 9,500 health sector civil servants.<sup>541</sup> In-

service training can function as a form of salary support for those who attend the training, as trainees typically receive stipends for participating.

Pre-service training, however, is more sustainable, inclusive, and cost-effective than in-service training, and less disruptive as well. In-service training may end once a donor ceases to sponsor the training, whereas the skills to be taught can be made a permanent part of a pre-service curriculum. Pre-service training covers all health professionals of a given type; in-service training covers only a portion. In-service training, unlike pre-service training, typically includes high costs for hotels and travel. And much in-service training is provided off-site, drawing health care workers away from their patients. The focus on in-service training also draws attention away from pre-service education, which has none of these drawbacks.<sup>542</sup>

*8. African countries shortages should consider reducing the length of professional training programs to speed the production of health personnel. This should be done only if it can be accomplished in a manner that will ensure that graduates still have the required competency, skills, and experiences.*

Training a physician or registered nurse is a lengthy process. Even if health training institutions are able to increase their capacity, it will be years before larger classes graduate. In some cases, it may be possible for health training institutions to speed this process by reducing the length of training. It is critical any reduction in the length of training is accomplished in such a way that continues to ensure that graduates have the required competency, skills, and experiences. For example, one option that has been proposed in South Africa is to reduce the number of specializations that nursing students choose from four to one, which could enable nursing training to be reduced from four to three years.<sup>543</sup> One way to help develop the skills and experiences of new health professionals, which will be especially important if formal pre-service training is reduced, is “through team work where junior members of the team benefit from senior members of the team.”<sup>544</sup>

*9. African countries should reach out to retired and inactive health professionals.*

Several pools of health professionals exist to whom countries can reach out to re-engage into the profession, helping ease their shortages. These include retired health professionals, who might be induced back into service, and trained health personnel in the country who, for any number of reasons, are not currently employed in the health professions.<sup>545</sup> This category includes health workers who, incredibly, are unemployed because of

spending limits on health workers, which will be discussed further below. Others might be unemployed because, for reasons discussed below, the country has been unable to afford to hire them. This category includes, for example, thousands of Kenyan health professionals, including 4,000 nurses, 1,000 clinical officers, 2,000 laboratory staff, and 160 pharmacists or pharmacy technicians.<sup>546</sup>

### **Increasing roles of nurses, mid-level cadres, and community health workers**

The shortage of health professionals in many African countries is greatest at the highest level of training. Physicians are in the shortest supply, leaving nurses to run much of the health system, though the dearth of registered nurses is often itself considerable. To address this situation, a key strategy recognized by WHO is to push down the types of care provided at each level, such that doctors provide care that they are uniquely equipped to provide, with some of the services they now provide shifted to the level of nurses, while some of the tasks that nurses now provide are assumed by mid-level cadres (those with less training than physicians or registered nurses).<sup>547</sup> Community health workers could also be an important part of the service delivery picture.

In the process of increasing the responsibility of health workers, including nurses, mid-level cadres, and community health workers, it is absolutely critical that health ministries ensure that changes in responsibilities are accompanied by re-evaluation of salary and benefits, training, and supervision for those health workers who receive increased responsibilities. Health workers who receive greater responsibilities are likely to expect higher pay, and could lose motivation if they do not receive it. Health workers will have to be adequately trained in their new responsibilities. And they will have to be supervised both to ensure that they are performing the new tasks appropriately and to provide support in their new responsibilities. To the extent more supervision is necessary, more supervisors may need to be trained to avoid burdening existing supervisors.

### **Recommendations**

*1. African countries should increase the responsibilities and numbers of mid-level health cadres consistent with these workers' training and ability, the country's public health needs, and the number of physicians and registered nurses in the country.*

Many services now performed by nurses and physicians could potentially be performed by mid-level cadres of health workers. Developing these mid-level health workers has a number of advantages. First, these health work-

ers will free the most trained health workers, who are generally in the greatest shortage and take the longest to produce, to perform tasks where their skills are most required. Second, mid-level health workers can be trained much more quickly and at lower cost to the government per worker, enabling countries to produce significant numbers of skilled health workers faster. Third, mid-level health workers are unlikely to be attractive to high-income countries, so these health workers are much less likely to migrate.

Ministries of health should consider whether their current classifications of health workers include these mid-level cadres, whether they are being trained in adequate numbers, and whether there are more tasks that they could be performing. Ministries will have to consider increases in pay, training, and supervision that may be necessary with the new responsibilities.

Ministries may find it necessary or useful to create new classes of mid-level cadres. For example, Malawi had abolished two mid-level cadres, enrolled nurses and medical assistants, in a move to focus on highly trained personnel. But in light of its dearth of health workers, the government reversed this decision and re-introduced these types of health workers.<sup>548</sup> Malawi also makes extensive use of health surveillance assistants, who require just six weeks of training. In Tanzania, medical licentiates, trained in basic health sciences, obstetrics, and surgery, are an important cadre to district hospitals.<sup>549</sup> Zimbabwe has introduced state enrolled nurses, who require two years of training, rather than the three required for state registered nurses.<sup>550</sup> Another cadre that could be trained is the paramedic, for “paramedics . . . can fulfill many of the roles of doctors but [their] qualifications are not recognised outside the country.”<sup>551</sup>

Pharmacy technicians and pharmacy assistants, who are less likely to migrate than pharmacists and who can do many of the basic tasks pharmacists perform, can have an important role if adequately supervised.<sup>552</sup> Phlebotomists, who require much less training than doctors or nurses, could draw blood. Orderlies and clerical workers could also assume greater roles. For example, nurses in Botswana spend much of their time making beds and emptying bedpans, tasks that orderlies could perform, while pharmacists may spend much time taking inventories, which clerical workers could do instead.<sup>553</sup> Health ministries should consider the career paths of new cadres of health workers.<sup>554</sup> Well-defined clear paths could enhance their morale and help attract people to these jobs.

Health ministries should be prepared for the possibility of resistance from established medical communities if they propose creating new cadres of health professionals. In the words of a faculty member at a Ghanaian medical school, “I don’t want any 60 percent doctors

taking care of me when I get ill.”<sup>555</sup> However, mid-level health workers are quite capable of providing quality care if due regard is given to their pay, the quality of training, and the level of supervision. Despite the possibility of resistance, health ministries must seriously consider developing or expanding mid-level cadres of health workers, recognizing the reality that this will increase the quality of care their health services are able to offer.

*2. African countries should promote advanced practice roles for nurses, including the ability to prescribe and dispense medication. The increased responsibility should occur in concert with increased salary and benefits, training, and supervision to enable nurses to meet these new responsibilities.*

Nurses, who are far more numerous than doctors in Africa, could assume advanced practice roles, possibly including prescribing ARVs. That particular possibility has become a serious option now that WHO has developed guidelines and training modules to help standardize treatment, and as pill regimens become simpler with the availability of fixed dose combinations. Indeed, nurses are already beginning to prescribe ARVs. At the Lighthouse Clinic in Malawi, for example, physicians prescribe ARVs for the first six months, after which nurses can prescribe ARVs three times before a physician must again review the patient’s progress.<sup>556</sup>

Models for nurses assuming advanced practice roles exist in Africa, where in some countries, for instance, nurse midwives have the authority to prescribe and dispense medication. Nurses in Zambia, have the right to prescribe and perform some invasive procedures. Nurses in Botswana may prescribe medications when no doctor is present.<sup>557</sup> In South Africa, nurses with the appropriate permit are authorized to prescribe medicines.<sup>558</sup>

Models of advanced practice roles for nurses, including the ability to prescribe, can and should be seized by countries seeking to alleviate the effects of health professional shortages. Changes in the role of nurses should occur after a situation analysis that takes into account the possibility that nurses will need more training in other areas before receiving additional responsibilities, or that because of nurse shortages, nurses might not have the time they need to satisfactorily fulfill even their present responsibilities. A full consultation with nurses must be undertaken to ensure that the changes are appropriate to the local conditions and address concerns that nurses may have. Enhancing nurses’ opportunities and responsibilities, increasing their salary and benefits, and improving their working conditions will likely lead to increased respect for nurses and may encourage more nurses to remain in their native countries.

These advanced practice roles must be accompanied by adequate supervision, increased remuneration commensurate with increased responsibilities, as well as quality training in the nurses' new roles. Soraya Elloker, a nurse with the South African Municipal Workers' Union, reports that South Africa has increased the level of responsibility for its nurses, but has failed to accompany the new responsibilities with better pay or supervision, and without appropriate training. As a result, the policy is not working.<sup>559</sup>

*3. African countries and other low-income countries facing health worker shortages should explore the possibility of training community health workers to carry out specific tasks, including but not limited to supporting anti-retroviral therapy.*

Community health workers have the potential of playing a critical role in providing health services in countries where formal health providers are too few. The importance of community health workers has been highlighted recently by WHO's 3 by 5 treatment strategy, which includes training 100,000 health providers and community health workers. WHO expects that while the proportion of those trained who are health providers and who are community health workers will vary by country, typically about half of those trained (40-60%), or about 50,000 people, will have to be trained as community health workers (or community treatment supporters).<sup>560</sup>

Community health workers' ability to reach into the community may make them particularly important to providing health services to those who are underserved. For example, infant mortality had decreased by 15% in Egypt when oral rehydration solution was available only in pharmacies. But when community health workers were able to bring the solution to people's homes, infant mortality decreased 40%.<sup>561</sup> In another example of community health workers' success, community health workers in Nepal, most of whom were illiterate or semi-literate women, diagnosed acute respiratory infections (in particular, pneumonia) and provided standard first-line antibiotic treatment. In light of the program's success, it was expanded from four pilot districts (at least one of which found a significant decrease in child mortality) to fourteen districts and then twenty-one districts, and expanded to include diarrhea interventions and community-based integrated management of childhood illness. The program includes strong supervision, and "[a]ll quality-of-care indicators are strong."<sup>562</sup> In Haiti, Partners in Health has worked with community health workers to implement a very successful AIDS treatment program in a remote region of the Western Hemisphere's poorest country. The community health workers observe patients take their medication, respond to patient and family concerns, and provide moral support.<sup>563</sup>

When organizing community health worker programs, health ministries or NGOs must bear in mind the importance of pay, training, and supervision. While the level and type of pay (if any) will vary, as will training and supervision needs, a successful program will give due regard to all three elements. As in the Nepal program, strong supervision is critical, as is good training, possibly with refresher courses. One comprehensive study of community health workers has suggested that in-kind payment, such as food, could be a useful incentive. Cash payments tend to help retain community health workers, though they may lead to various difficulties as well.<sup>564</sup>

A South African NGO that trains community health workers to provide counseling, home-based care, and other services for people with HIV/AIDS is a model worthy of examination and quite possibly emulation. The NGO, Community AIDS Response (CARE), has four levels of volunteers. Pure volunteers, often in the process of being screened to receive counselor training, receive no pay and offer informal help to clients. Volunteers who have received training on counseling receive 120 rand (about \$15-20) per month, enough to cover transportation costs. Those volunteers who receive further training on home-based care and spend four days a week counseling and providing home-based care receive a stipend of about 500 rand (about \$70-80) per month. Team leaders, who are full-time CARE employees, head volunteer teams and receive 1800 rand (about \$255-290) per month. CARE volunteers are well-supported, including through weekly group supervision.<sup>565</sup> This organizational structure encourages community members to volunteer for CARE so that they can help their community, learn skills that will help them gain employment, and possibly earn a small stipend. The potential to earn a stipend and gain skills that increase employability can be quite enticing in places like Soweto, outside Johannesburg, where unemployment rates are astronomical.

Along with community health workers, the roles of traditional healers must be re-examined, with an eye towards integrating them into health systems. Traditional healers can play an important role in preventing and managing HIV.<sup>566</sup> For example, they can provide counseling on prevention, encourage testing, refer clients to the formal health system, and assist in treatment support and adherence.

### **Foreign health professionals**

In some African countries, foreign health professionals make up a significant portion of physicians, with their services particularly important to rural areas. Some 90% of doctors in Botswana are said to be foreigners.<sup>567</sup> The World Bank has estimated that about one-quarter of the

doctors in Kenya are from abroad, mostly from India and Pakistan.<sup>568</sup> In 2003, about 450 Cuban doctors were practicing in South Africa pursuant to a 1996 agreement between the two countries. Many are assigned to rural and other disadvantaged areas.<sup>569</sup> In 2000, Zimbabwe recruited 120 Cuban doctors, mostly for rural hospitals, and a contingent of 74 Cuban doctors arrived in Zimbabwe in February 2003.<sup>570</sup> Ghana, which also has its share of Cuban doctors, had seen some 200 physicians from Eastern Europe and the former Soviet Union arrive by the mid-1990s.<sup>571</sup>

Using foreign doctors has drawbacks. They may have difficulty communicating with patients. Many of the foreign doctors in Botswana do not speak the local language, Setswana. Language barriers for foreign physicians have also been cited in South Africa and Ghana.<sup>572</sup> And the foreign physicians may need time to become familiar with the local social and medical cultures. Foreign doctors and other health professionals also can disrupt the operations of the health system, particularly if they do not stay long. This is the case in Botswana, where many counselors from abroad have a high turnover rate, requiring heavy investments in training and supervision.<sup>573</sup> Their high turnover rate and significantly higher salaries than native health professionals, for instance, “can be at odds with creating sustainable human resources in health.”<sup>574</sup> Also, foreign doctors might not necessarily match the community’s needs. For example, Cuban doctors in South Africa have been trained as specialists, even though rural facilities are most in need of generalists.<sup>575</sup>

Nonetheless, foreign health professionals have an important role to serve. They can provide critical training in such areas as HIV/AIDS treatment, and can share other expertise on HIV/AIDS and related conditions. In so doing, foreign health professionals would be helping to enhance local capacity. Local medical staff may also teach the foreign health professionals about primary health care and tropical diseases,<sup>576</sup> thus providing them professional benefits (along with the personal satisfaction they are likely to experience). And in places where the shortage of health professionals is particularly acute, foreigners may also have a critical role in service delivery. Since foreign health professionals often serve in the most underserved areas within countries, as in South Africa and Zimbabwe, the clinical services they provide are likely to be especially important to the health of rural and poor populations.

For example, rural South Africa needs foreign health professionals, who are already important service providers there. In 1999, 78% of rural physicians in South Africa came from abroad,<sup>577</sup> though the compul-

sory public service requirement introduced that year<sup>578</sup> may have reduced the proportion since that time. The Rural Doctors Association of Southern Africa, while believing “that the long term solution for rural health care in South Africa is adequate and appropriate training of South Africans” recognizes that “it is obvious that we in South Africa will remain reliant on the services of foreign qualified doctors to staff our rural health services for many years to come.” In bold lettering on its website, the Association “invite[s] our suitably qualified colleagues from overseas to explore the possibility of coming to assist us in rural South Africa, where the challenges are as great as the rewards.”<sup>579</sup>

The need is especially great with the roll-out of anti-retroviral therapy. The Treatment Action Campaign is interested in starting a campaign to encourage health workers from wealthy countries to work in South Africa to assist in the roll-out. The need for outside help is exemplified by Rietvlei District Hospital in Eastern Cape, South Africa’s most rural province. The South African government has designated the hospital as the AIDS treatment site for its district, which has about 180,000 people. According to Dr. Nigel Hoffman, the hospital superintendent (himself originally from the United Kingdom, though he has spent the past fifteen years at the Rietvlei hospital), to provide ARV therapy at the hospital, except possibly on the very small scale of about five new patients per week, would mean drawing resources away from other health services. Even then, training doctors would be difficult, as two of the five doctors at the hospital on their one-year of mandatory community service, and are likely to leave at the end of the year. It would be too costly to health services at the hospital to draw the doctors away from the hospital to be trained in ARV therapy when the doctors would likely leave the hospital soon after the training. The hospital can only start people on ARV therapy at a more rapid rate, while continuing to provide the current level of other health services, if it has more doctors, including foreign health professionals.<sup>580</sup>

The need will be acute over the next several years while many HIV-positive people are beginning AIDS treatment at the same time the hospital must cope with many patients suffering from AIDS-related complications. Once treatment has been underway for several years, the burden of treating people with HIV/AIDS should decrease considerably because many people will already be on anti-retroviral therapy, at which time it should be possible for local health professionals to both provide anti-retroviral therapy and continue with their ordinary duties.<sup>581</sup>

## Recommendations

*1. Through programs sponsored by high-income country governments, partnership programs with health institutions in high-income countries, and independent volunteer programs, high-income countries should develop strategies to send their health professionals to low-income countries, in Africa and elsewhere as needed. These programs should be designed to build local capacity and, where appropriate, meet critical clinical service needs in low-income countries.*

In a number of African countries, foreign nationals could provide important training and clinical services. They might be sponsored by programs designed and implemented by governments of high-income countries. For example, in the United States, the US Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, authorizes the creation of a pilot program to place American health professionals in sub-Saharan Africa and other areas severely affected by HIV/AIDS, tuberculosis, and malaria.<sup>582</sup> The US Five-Year Global HIV/AIDS Strategy states that the “US Global AIDS Coordinator is exploring various mechanisms and options for facilitating US professionals” to provide on-the-job training, mentoring of host country counterparts, and technical assistance.<sup>583</sup> This program, which should be supplemented by additional funding beyond the money appropriated for AIDS, could be expanded to support health professionals who can provide both training and clinical services.

Health professionals might also be provided as part of twinning programs between health institutions in high-income countries and either their institutional counterparts in African countries or districts or other areas of low-income countries. In this latter case, high-income country institutions could work directly with district health services to determine how foreign health professionals can best support the district. This possibility has precedent in such programs as the Community Health Partnership Program (CHAPS) in Malawi. In CHAPS, NGOs and private volunteer organizations were paired directly with district health offices in Malawi, to whom they provided technical and management support.<sup>584</sup> District health offices could help determine the needs for and place health professionals from health institutions in high-income countries.

A third possibility is for health professionals to volunteer for organizations whose mission is to place them abroad, particularly to provide training. For example, the International Center for Equal Healthcare Access works with American and European volunteer health care providers to train local health

professionals in developing countries in AIDS care, treatment, and prevention.<sup>585</sup>

To ensure that health professionals will succeed in environments quite different from those in which they may be used to working, whether by providing training that is consistent with local constraints or by being able to provide clinical services despite obstacles that they do not face back home, foreign health professionals must be trained for the conditions in which they will work. In particular, they must be prepared to practice even when the support and equipment that they are used to having are unavailable. As a Kenyan pharmacist notes, “Depending also on their training, [foreign health professionals] may not always have the skills required in the developing countries. For example, we struggle with issues around managing drug supply. Those trained on the drug therapy outcome, i.e. one-to-one interaction, would have excellent performance in the wards but then the drugs may not be in the pharmacy!”<sup>586</sup>

Foreign health professionals may have two basic roles. One is to train local health care workers and, in so doing to build local capacity, including in HIV/AIDS care and treatment. To ensure that the capacity they help develop is sustainable, and to avoid the disruptions of constant turnover, health professionals or the programs of which they are a part should make long-term commitments to the areas in which they serve. There may be cases, however, where even short periods of service could be very valuable, such as to train a group of health professionals on AIDS treatment. Since the central purpose of foreign health professionals would be to create sustainable improvements in local capacity, programs involving foreign health professionals must complement, not replace, programs to train and mobilize local health professionals. And because of shortages in equipment and supplies, programs that enable foreign health professionals to support their counterparts in Africa and other regions of the developing world should also be used to provide necessary supplies and equipment, and try to ensure the continued availability of the supplies and equipment when they leave.

The other role for foreign health professionals is direct service provision. In countries where the shortage of health professionals is particularly acute, whether in absolute terms or in light of efforts to scale up health interventions, especially AIDS treatment, foreign nationals may also have a significant role in providing clinical care. This is the case in Botswana, for example, and in rural South Africa, where the presence of health professionals from abroad will significantly affect the pace of ARV scale-up. Ideally, when providing clinical services, these health professionals will also be able to mentor and impart skills to their local counterparts, and so build local capacity along with providing direct services.

2. *African countries that could benefit from the services of foreign health workers should minimize immigration restrictions on these workers.*

Governments whose countries would benefit from foreign health workers must ensure that these workers have as few obstacles as possible to service. Governments should ensure that such processes as obtaining work visas and ensuring that health workers are adequately qualified are as easy and efficient as possible. The Rural Doctors Association of Southern Africa has asserted that “barriers to Medical Board registration and lack of cooperation from the authorities with regard to issuing work permits to doctors already working here” had prevented willing foreign health professionals from coming to South Africa, and encouraged those that had been working in the country to leave. Fortunately, although there are “still many issues to be resolved,” the Health Professions Council has ceased to necessarily require an examination for foreign health professionals, and the Department of Home Affairs began to issue three-year work visas.<sup>587</sup>

## **E. INCREASE NUMBER OF RURAL HEALTH WORKERS**

The extreme dearth of rural health care workers in much of Africa requires special measures, beyond the efforts to increase the numbers of health workers in African countries more generally.

### **Recommendations**

1. *African countries, with assistance if necessary from the United States and other donors, should provide extra salaries and benefits to health workers who take posts in rural or other underserved areas. Health professionals working in especially remote or otherwise unpopular facilities should be eligible for extra incentives.*

Just as increased remuneration generally is a key strategy to recruiting and retaining health professionals in Africa and other low-income countries, additional increases in salary and benefits are likely to help attract health professionals to rural areas, or encourage those already posted in rural and other underserved areas to remain. These incentives may take many forms, and need not be monetary, or exclusively monetary. For example, they might include extra vacation or study time, employment assistance for health workers’ spouses, and assistance with accommodations and the education of health workers’ children.<sup>588</sup>

Several African countries, recognizing the potential benefits of these incentives, have introduced increased pay for rural health workers. Mauritania, as part of a program to supplement salaries of health and education

civil servants, is providing higher bonuses for workers in remote rural areas.<sup>589</sup> In early 2004, the Director-General of the Ghana Health Service announced that Ghana would soon introduce a package of benefits, a Deprived Area Allowance Scheme package, to health workers who accept posts in any of 55 designated deprived areas. District assemblies are to manage the incentives.<sup>590</sup>

South Africa also provides special allowances to rural health professionals. South Africa’s health budget allocates a total of 500 million rand (about \$70-85 million) for two types of allowances, rural health allowances and scarce skill allowances, for health workers in 2003/2004. The funding is set to increase to 750 million rand in 2004/2005 and 1 billion rand in 2005/2006.<sup>591</sup> Depending on how the rural area in which the health professionals work has been designated, professional nurses will receive an additional 8-12% of salary; psychologists, pharmacists, and several other classes of health professionals will receive an additional 12-17% of salary, and; doctors and dentists will receive an additional 18-22% of salary.<sup>592</sup>

When designing incentives for health workers in rural areas, as for other salary and benefits packages, it is critical that governments make the incentives fair across different categories of health workers. That nurses receive only about half the percentage of their salaries as a rural allowance as physicians raises some concern given the importance of fair salary structures and Ghana’s experiences with the ADHA.

Governments should also consider the possibility of special incentives for particular rural health facilities that have extra difficulty attracting health professionals. The facility might be particularly remote or have a reputation as a difficult place to work. For example, the head nurse at the Mount Ayliff Hospital, in Eastern Cape reported in April that the very high workload at the facility discourages people from applying, so no one responds to job postings for the hospital. She thought that greater incentives for health facilities that are especially short-staffed or otherwise in need of additional incentives to attract staff could help hospitals such as hers.<sup>593</sup>

2. *African countries should consider policies, such as a community service requirement, that will encourage health professionals to practice in rural and other underserved areas.*

South Africa and Nigeria have public service requirements, where new physicians must complete one year of community service after they graduate medical school. At least in the case of South Africa, physicians must complete the requirement in order to register.<sup>594</sup> In South Africa, the requirement began in 1999 for physicians, pharmacists and dentists, was expanded in 2003 to encompass clinical psychologists and several other spe-

cialties, and as early as 2005 will include professional nurses.<sup>595</sup> The program has helped, though it is far from enough to meet the entire need for health professionals in rural South Africa.<sup>596</sup> While data through 2001 indicates that about three-quarters of South African doctors spend their year of community service in urban areas,<sup>597</sup> many health professionals do serve their year of community service in a rural facility.<sup>598</sup> For example, of the five physicians at the Rietvlei District Hospital in Eastern Cape, two are community service doctors, and another first came to the hospital as a community service doctor and remained at the hospital after her community service requirement ended last year.<sup>599</sup> Young doctors may receive inadequate supervision because of a lack of senior doctors, however, and their high turn-over rate is an issue of concern.<sup>600</sup>

Some doctors, perhaps reflecting their own views of the compulsory community service requirement, “have pointed out in letters to the press that compulsory community service regulations have led a significant number of newly qualified medical practitioners to leave that country in recent years.”<sup>601</sup> And the number of doctors saying that they planned to work overseas ticked upward from 1999, when the requirement was introduced, to 2001, from 34% to 43%,<sup>602</sup> though this change was not necessarily attributable to the community service requirement. Indeed, the drop-out rate of physicians who either refuse to register, emigrate, or delay their community service requirement is only 8%, and the program has been called “relatively uncontroversial.” Nonetheless, although rural South Africans would likely benefit from a larger and slightly more experienced pool of health professionals, it is considered unlikely that the one-year requirement will be extended to two years, as this could “not only provoke the ire of health professionals but also significantly increase the drop-out rate.”<sup>603</sup>

A faculty member in a medical school in Ghana has proposed three years of rural service obligation before students can complete their final six months of medical school, with the students remaining in close contact with their medical school during those three years. For example, they would return for occasional conferences and short courses. The faculty member did not expect that such a program could receive the political support that would be required for it to be implemented.<sup>604</sup>

A restriction in South Africa aimed at increasing the number of health professionals in underserved areas that has drawn significant ire from physicians is the certificate of need. This policy, introduced in legislation in late 2003, only permits private physicians to establish or join a practice in areas certified by the government as areas in need.<sup>605</sup> Although not written into law, the health ministry has said that the policy will apply primarily or exclusively to doctors seeking new licenses; those

already practicing, even in areas that would not be certified under the policy as in need, will not be required to relocate.<sup>606</sup> The government has defended the policy, which would shunt private physicians into areas of greater need, as part of the government’s constitutional duty to extend access to health care, as well as a way to reduce duplication and gross inefficiencies.<sup>607</sup> Physicians have responded that the policy violates their rights to property, employment, family life, and dignity,<sup>608</sup> and that the government might require them to practice in areas that are not economically viable.<sup>609</sup> In February 2004, some 2,000 physicians marched to protest the policy.<sup>610</sup> Some physicians have also warned that the certificate of need requirement would accelerate brain drain and discourage those already abroad from returning.<sup>611</sup>

This angry response points to the need for governments to weigh carefully the expected benefits of measures to increase the number of health professionals practicing in rural areas with the risks of harm, such as increased migration and decreased morale within the health professions, that may come from dissenting health professionals. It also indicates the importance of including health professionals in designing these programs, even if in the end, the government concludes that equality or other concerns justify the policy, despite opposition from the medical profession and other health professions. This appears to be the case in South Africa, where the government did hold consultations on the certificate of need.<sup>612</sup> In light of the government’s responsibility to promote equal health care, and to ensure health services for vulnerable and marginalized community members, it is certainly possible that measures taken to help bring health services to underserved members of the community, even if opposed by health professionals, will be legitimate and in keeping with the government’s responsibilities.<sup>613</sup>

A less controversial way that governments could interact with the private sector to help distribute health services more equally would be to contract with private sector health personnel to fill vacant posts, especially those in rural areas. South Africa has recognized this as a possible strategy in scaling up AIDS treatment and care.<sup>614</sup>

### *3. Health training institutions in Africa should initiate programs, which may include courses, speakers, field trips, and rural health tracks, to encourage students to practice in rural and other underserved areas.*

One strategy to encourage health professionals to practice in rural areas is to make rural health activities a part of student training. For example, Malawi’s College of Medicine has developed a course that “is specifically aimed at training doctors to work in rural districts,” and includes

“a substantial community medicine component.”<sup>615</sup> Along with course work aimed at preparing health professionals for rural practice and specific rural health tracks, rural field work could also help encourage students to practice in rural areas. It has even been suggested that rural field work might be made a compulsory part of medical training.<sup>616</sup> Besides field work and course work, speakers who practice in rural or other underserved areas, and encourage students to do the same, could increase graduates’ willingness to work in rural areas.<sup>617</sup>

#### *4. Health training institutions in African countries should make special efforts to recruit students from rural and other underserved areas.*

Studies in the United States, Norway, and Australia have found that medical students from rural areas are more likely than students from urban areas to practice in rural areas. Indeed, the rural origin of a medical student is one of the two most significant predictors of whether the student will return to practice in rural areas (the other is specializing in family medicine). A recent study in South Africa, covering students in five South African medical schools, found that students from rural areas were far more likely to practice in rural areas compared to students originally from urban areas. In one sample, rural origin students were more than three times more likely to practice in rural areas than their urban origin counterparts (38.4% compared to 12.4%), while a second sample found an even more significant difference (41.6% of rural origin students returned to practice in rural areas, whereas only 5.08% of urban origin students practiced in rural areas).<sup>618</sup>

Therefore, health training institutions should target recruitment efforts at students from rural and other underserved areas. This should increase the number of graduates who later practice in rural areas. Schools should consider setting recruitment quotas for rural and other underserved areas.<sup>619</sup> To facilitate this recruitment process, it is important that students in rural areas have the skills and desire to enter a health training institute. This requires strengthening secondary education in rural areas and encouraging students to enter the health professions by holding career days or through other activities.<sup>620</sup>

#### *5. The United States and other donors should consider funding scholarship programs for students from rural and other underserved areas and less privileged backgrounds.*

Although African governments tend to pay most of the cost of training for health professionals, the students sometimes have to pay a portion of the cost. Even if this portion is small, it can still deter potential candidates from less privileged background from seeking admission to medical, nursing, and other health training institu-

tions. Even if they do not have to pay any tuition, students will often have to shoulder the cost of books, food, and housing.<sup>621</sup> Therefore, “students from poorer sections of the community are less able to enter medical school, resulting in an urban and middle class bias amongst medical graduates.”<sup>622</sup>

To help redress this imbalance, and encourage candidates from less privileged backgrounds, including from rural areas, to enter the health professionals, the United States and other donors should consider funding scholarships to enable these students to enter health training programs. The scholarships might specifically require recipients to serve in rural areas for several years.<sup>623</sup> Along with funding scholarships, the United States and other donors should consider fully covering the costs of tuition at health training institutions, which would enable the training to be offered free to all students. This could reduce the urban and middle class bias of medical graduates on an even greater scale than individual scholarships would likely accomplish.

#### *6. African countries and donors should focus resources on physical infrastructure and other forms of health system development in rural and other underserved areas.*

Rural and other disadvantaged areas in African countries tend to receive lower levels of health funding than urban areas. As a result, rural health facilities tend to be in worse condition than their urban counterparts, which may add to the difficulty of attracting and retaining health professionals. To help redress this imbalance and equalize the level of health services available in different parts of a given country, investments in rehabilitating health facilities, improving medicine supplies, and other health systems investments should be targeted especially (though not exclusively) to rural and other underserved areas. Improving the state of health facilities and health systems in rural areas will likely also help attract health professionals to and retain them in rural areas.<sup>624</sup>

#### *7. African countries should consider hiring staff expressly for rural and other underserved areas.*

Countries might find ways to hire and train health workers specifically to work in rural and other underserved areas. To help redress its own staffing imbalance between rural and urban areas, Mauritania initiated a program several years ago to train auxiliary midwives and hire them on contract specifically to work in rural communities.<sup>625</sup> Other countries should consider adapting this model to their circumstances.

## **F. AFRICAN HEALTH PROFESSIONAL DIASPORA**

Brain drain has resulted in tens of thousands of doctors, nurses, and other health professionals practicing

abroad. They often retain family, emotional, or other ties to their country of origin, and would be willing to – or even strongly desire to – use their professional skills to assist their home countries. For many years, the International Organization of Migration (IOM) worked to get African professionals who had resettled elsewhere to return to their country of origin, and ultimately assisted the return of 2,000 professionals over about a twenty-year period (1983-1999). The IOM has since shifted its focus to sequenced visits back to Africa rather than permanent relocation.<sup>626</sup> In a similar vein, the diaspora organization Africa's Brain Gain, Inc., aims to facilitate the "return of talents" to Africa in whatever form is possible, even if not permanent relocation is not an option (though that is encouraged too).<sup>627</sup> When working with the African diaspora to contribute to the health sectors of African countries, organizations should bear in mind that not only health professionals, but professionals with other skills including management, information technology, medical technology, and finance can contribute to the health sector.<sup>628</sup>

### *1. African countries experiencing the loss of health professionals should permit dual citizenship.*

Health professionals who migrate to another country may come to consider their new country a second home. They may be willing to return to their country of origin but be unwilling to give up the option of returning to their adopted country, unwilling to cut ties to their new home. In such cases, they might only be willing to migrate back to their country of origin if they can maintain citizenship in their adopted country. That some African countries do not permit dual citizenship could prevent them from returning to their country of origin.<sup>629</sup>

African countries, and other countries suffering from brain drain, should therefore permit dual citizenship. At least one country, Nigeria, has recently legalized dual citizenship in an explicit attempt to encourage members of the Nigeria diaspora to return to Nigeria.<sup>630</sup>

### *2. The United States should enact special provisions in its immigration law to permit health professionals from countries suffering from brain drain to return to the health sector in their native countries without losing their residency status or otherwise having the time spent away from the United States prejudice them in the naturalization process. Other high-income countries should do the same.*

One obstacle faced by the IOM's efforts to reintegrate African professionals who had moved to industrialized nations back into African societies was immigration regulations. The IOM found that some professionals were

reluctant to leave their adopted country because of fear that they would be unable to return because of immigration regulations requiring them to remain in their adopted country for a fixed period of time or risk losing their residency status.<sup>631</sup> In the United States, for example, the continuous residency requirement mandates that an immigrant seeking permanent residency status must typically be in the United States for five consecutive years.<sup>632</sup> Returning to Africa during this time period would be very difficult at best. A special immigrant visa should be created to permit Africans and others nationals of developing countries, particularly those suffering a public health crisis, to return to their country of origin (or indeed, to any qualifying country) in order to contribute to that country's public health needs.

A perfect vehicle for creating this special immigrant visa exists in the Return of Talents Act, a bill introduced in the Senate in late 2003. The bill would create a special immigrant visa for immigrants who "demonstrate an ability and willingness to make a material contribution to the post-conflict reconstruction in the alien's country of citizenship."<sup>633</sup> It is an excellent vehicle for also creating a special immigrant visa for health professionals. The bill treats the immigrants who are contributing to post-reconstruction abroad as being in the United States during that time for purposes of the continuous residency requirement.<sup>634</sup> The bill should be amended to similarly create a special immigrant visa for those who are able and willing to contribute to the public health of developing countries. The bill should then be passed and signed into law.

### *3. African countries should reach out to health professionals who have migrated.*

Health professionals who have emigrated will most well return, temporarily or permanently, to their original home if their country of origin engages them and encourages them to "put their capacities to the service of the nation."<sup>635</sup> Nigeria's President Olusegun Obasanjo tried the personal touch, traveling extensively to meet with the Nigerian professional diaspora in America, Europe, and Asia. Côte d'Ivoire established a department within the Ministry of Foreign Affairs dedicated to nationals living abroad. Governments could assist members of the diaspora with the administrative challenges they would face when returning, such as transferring funds from their new country back to their country of origin, finding housing, enrolling their children in school, and possibly re-registering with a professional organization.<sup>636</sup> Countries might even consider providing incentives for nationals who are willing to return, such as paying relocation expenses or subsidized housing, though this approach could be expensive and breed resentment among those who never left and therefore do not receive these incentives.<sup>637</sup>

*4. Working through the IOM and others, African and other countries suffering from the emigration of health professionals should maintain a database of job openings that could be filled by members of the health professional diaspora. The IOM and networks of health professionals from source countries living abroad should help publicize these job openings.*

The IOM has found that a significant obstacle to African professionals returning from high-income countries to work in Africa is a lack of knowledge of job opportunities in Africa.<sup>638</sup> A frequently updated database of such opportunities maintained by governments of African countries, independent organizations within those countries, or an international organization such as the IOM or WHO, could remove, or at least lessen, the degree to which lack of information is a barrier to African health professionals returning to work in Africa. Indeed, as part of its Migration for Development in Africa (MIDA) health program, the IOM has established a database of priority human resource and training needs of the Rwandan health sector.<sup>639</sup> In a MIDA Ghana Health project that is soon to begin, a cooperative project between the Netherlands and Ghana, the IOM has begun to establish a database with job offers and assignments from Ghanaian hospitals and other health institutions, as well as profiles of Ghanaian health professionals living in the Netherlands.<sup>640</sup> The jobs listed in the database might be temporary, such as a semester teaching a class at a medical school, or permanent positions, and could include both managerial opportunities (such as assisting with planning in the health ministry) and clinical possibilities.

For information on job opportunities to be valuable, members of the African diaspora must know that the information is available and how to access it. Therefore, the database should be publicized by the IOM and others well-positioned organizations to reach out to members of the diaspora, including networks of health professionals who are part of the diaspora, such as the Association of Nigerian Physicians in America. Organizations that are already involved in developing a job database on a smaller scale, such as Africa's Brain Gain, should be encouraged to participate in this project.

*5. The United States and other high-income countries, as well as professional associations in these countries, should support the IOM and other organizations and initiatives that facilitate visits to Africa by members of the African health professional diaspora and that promote knowledge transfer through alternate means, such as the Internet and other technologies.*

Along with increasing opportunities for African health professional expatriates to physically relocate to their

country of origin, efforts are necessary to enhance the ability of these health professionals to contribute their skills without relocating. For example, the IOM reports that with more funds, it could expand its successful Great Lakes MIDA project to other high-income and African countries. That project sought to enable professionals from Burundi, the Democratic Republic of Congo, and Rwanda who were residing in Belgium to return to their home countries to provide short-term technical assistance and expertise. Most participants in the program filled teaching positions; there do not appear to have been any direct health care service providers. Along with funds to run the program, assistance is needed to pay for travel and other expenses.<sup>641</sup> The IOM's MIDA website offers the opportunity to members of the African diaspora to register in a database of professionals and students in the health sector. Those who register might be contacted with a request to participate in a development project in their country of origin.<sup>642</sup>

Private initiatives, such as Africa's Brain Gain, are being formed to encourage members of the diaspora to either return to Africa or contribute their talents through other means, such as the use of information technology. Africa's Brain Gain sponsors and operates an online database for skilled Africans living overseas who are interested in contributing their talents to the development of Africa, as well as databases for potential employers – African governments, multinational corporations, and development agencies.<sup>643</sup> Professional associations, such as the American Medical Association and the American Nurses Association, could contribute to efforts of organizations such as Africa's Brain Gain by informing members about the organization and encouraging them to register. Diaspora organizations, such as South African Network of Skills Abroad, could do the same.

*6. African countries, with assistance from the United States and other donors as needed, should establish top-quality "centers of excellence," particularly in rural or other underserved areas, to encourage diaspora health professionals to return.*

Countries should consider building top-quality "centers of excellence," health facilities of such quality that they can attract health professionals who have left the country to come back home to work in the facility. A pediatric physician who helps oversee the Botswana-Baylor Children's Clinical Center of Excellence has noted that he has received calls from nurses who have left Botswana, but now want to return to the country to work in the facility.<sup>644</sup>

Such centers would likely raise interest from local health professionals. Several measures might be taken to prevent the centers from drawing professionals away from health facilities already desperately understaffed.

The centers of excellence could be located in rural and other underserved areas. Strategies more narrowly tailored to prevent this internal brain drain could be developed. For example, countries could gain the commitment of enough emigrated health professionals to staff most or all of the positions of the center of excellence before beginning construction, or endeavor to gain such commitments while constructing the facility. Or facility managers might simply not hire, or place at the bottom of the pile of applications, any health professional from a facility in an underserved area that would be harmed by the health worker's loss.

*7. Health training institutions in countries experiencing a brain drain of health professionals should maintain a database of alumni, and encourage alumni to contribute their time or financial or material resources to the training institution or other health services in the country.*

A key to engaging the diaspora of African health professionals in Africa's health needs is being able to reach them. It is no coincidence that IOM's home page on its Migration for Development in Africa (MIDA) health project solicits interested African health professionals to register in MIDA's health database.<sup>645</sup> The institutions that train African health professionals are one potential important source of information on contact information of African health professionals. Yet researchers who visited several medical schools in Ghana and Nigeria found that none could provide a complete list of alumni with contact information.<sup>646</sup>

Therefore, these health training institutions should develop a database of all alumni, retrospectively if possible, otherwise prospectively. The schools could provide the contact information to the IOM or other organizations interested in reaching out to these health professionals to contribute to the health needs of their country of origin. Or these organizations would know that the schools are a source of this information, and could contact them as necessary. The United States and other donors should be prepared to provide developing country health institutions technical and financial assistance in developing these databases.

Along with assisting the IOM and other organizations working to facilitate the ability of health professionals who have migrated out of Africa or other developing regions to contribute to their countries of origin, the database can be a source of often sorely needed fundraising for the schools. The institutions can also encourage these alumni to contribute their time or material resources to the health and development of their countries more broadly, not just the training institutions themselves.<sup>647</sup>

## G. MACROECONOMIC POLICIES

### Nature of restrictive policies

Policies driven by macroeconomic concerns are interfering with the ability of many African and other countries to increase their health sector spending, including urgently needed funds for HIV/AIDS and human resources. The policies include caps on countries' overall spending, resulting in ceilings on health sector spending, and restrictions on the civil service budget, which may lead to freezes in health worker salary and benefits and in their recruitment. The ceilings may limit the ability of countries to accept large amounts of financial assistance, especially unexpected assistance. The overall budget ceilings are aimed at ensuring macroeconomic stability, including through low budget deficits, low inflation, and stable exchange rates. A stable exchange rate is aimed at promoting economic growth through exports.

The exact extent to which these policies are driven by international forces, in particular the IMF, as compared to national forces, in particular finance ministries, does not appear to be fully understood. The policies appear to be a mixture of mandates driven largely by the IMF and policies decided upon by finance ministries, with the necessary domestic political support.

What exactly are the policies? In general, the international influence, especially that of the IMF, is greatest at the level of setting broad budgetary constraints – such as overall level of spending permitted, which relates to such macroeconomic targets as the fiscal deficit (or surplus) and level of inflation. Once the overall budget is determined, different government ministries divide the budget among themselves. This is not the IMF's responsibility. As one scholar of the issue explained with respect to Uganda, "The Bretton Woods Institutions dictate the fiscal decisions at the higher levels of decision-making and the social service ministries are involved only at the lower levels. In other words, the Ministry of Health is forced to compete with other social service ministries for resources within a given ceiling set by the World Bank and IMF, and has to allocate expenditure within a restrictive budget."<sup>648</sup>

The heads of both UNAIDS and the World Bank have acknowledged the harm these ceilings may have on accepting funds for AIDS, in particular from the Global Fund, as well as domestic spending on AIDS. Speaking at the World Bank in November 2003, UNAIDS Executive Director Peter Piot stated, "When I hear that countries are choosing to comply with medium-term expenditure ceilings at the expense of adequately funding AIDS programs, it strikes me that someone isn't looking hard enough for sound alternatives."<sup>649</sup> On the same occasion, World Bank President James Wolfensohn acknowledged Peter Piot's concern. He said that the Bank was

“working with the Fund on this issue of limits on medium-term expenditure framework for things that cannot be put aside and for which grant funding very often is available. . . . it is a very real issue.”<sup>650</sup>

Medium term expenditure frameworks are spending frameworks, often covering a period of about three years, that exist in many low-income countries. They are typically associated with Poverty Reduction Strategy Papers (PRSPs). The IMF and World Bank initiated the PRSP process in 1999 “to help low-income countries and their development partners strengthen the impact of their common efforts on poverty reduction.”<sup>651</sup> PRSPs are national poverty reduction strategies that are intertwined with economic policies to achieve growth and reduce poverty, required for countries to receive debt relief under the Heavily Indebted Poor Country initiative and to receive concessional loans from the World Bank and IMF.<sup>652</sup> While spending ceilings are often associated with medium term expenditure frameworks, they may be part of economic strategies that go by another name.

Peter Piot is not the only UNAIDS official to speak out on the economic constraints and their impact on crucial spending. Several months later, a senior economist at UNAIDS, Robert Greener, expressed his concern. Referring to medium term expenditure frameworks and overall budget ceilings that cannot be exceeded, he said, “The issue will have to be confronted if there’re going to be significant scaling up with HIV/AIDS intervention, or indeed, of any other development interventions and as we try to meet the Millennium Development Goals. In some way, shape or form, these rules will need to change.” He later stated, “The rules, as literally interpreted, are completely unworkable and . . . new money cannot be spent under the rules. And clearly it’s not always applied that way. But it is a major problem that one of the largest organizations, influential organizations, in heavily indebted countries is, in fact, acting as a barrier to social expenditure.”<sup>653</sup>

The macroeconomic frameworks may contain ceilings or other limitations specific to government spending on salary and benefits for civil servants, which may limit how much countries can spend on salary and benefits for public sector health workers. This in turn may affect their pay and the number of health workers that the government may hire. At least in part, these restrictions are part of an effort to limit recurring costs to government. For example, Rwanda’s PRSP states, “The expenditures proposed in the enhanced [PRSP spending] scenarios . . . have been carefully designed to reduce rather than increase permanent recurrent commitments. . . . Correspondingly . . . the recruitment of new staff [has] been restricted.”<sup>654</sup> The overall public expenditure ceilings may prevent health ministries from hiring necessary staff or paying them appropriately. Civil service or other pub-

lic employment policies and procedures may limit the ability of health ministries to recruit and deploy health personnel, including through ceilings on positions that they may fill.<sup>655</sup> WHO’s *World Health Report 2004* notes the need for “relaxing fiscal constraints related to public sector hiring.”<sup>656</sup>

The reasons for specific restrictions on the civil service include concerns about mismanagement of the civil service (such as paying non-existent “ghost workers”), fear that excessive spending on civil servants will crowd out spending on social sectors and poverty reduction, the significant size of the civil servant budget, the possibility that many civil servants are not very productive and may be unnecessary, and the possibility that civil servants wages are excessive relative to the private sector.<sup>657</sup> Notably, these concerns are either absent for the health sector or should be dealt with through improved human resource management, not restrictions. Ghost workers may exist, and health sectors may employ relatively large numbers of unskilled or low-trained workers.<sup>658</sup> Effective human resource management can address these issues. Meanwhile, spending on health workers is spending on a social sector, public sector health workers wages are less than private sector wages for comparable jobs, and while wages are a significant proportion of the health budget, this is necessary to retain these key employees.

The Clinton Foundation, headed by former US President Bill Clinton, ran into such constraints when providing assistance to Mozambique in its response to HIV/AIDS. The Clinton Foundation succeeded, however, in at least partially removing these constraints. According to a presentation on the Clinton Foundation’s initiative in Mozambique, the “IMF has agreed to reduce restrictions on employment in [the] health sector.”<sup>659</sup>

Uganda, too, has had restrictions on health sector employment, though they may have been driven largely by Uganda’s finance ministry. A WHO and International Labor Organization consultant reported in 2000 that “stringent controls on levels of staffing in all sectors, instituted as part of the PSRP, has made it difficult to employ newly qualified health personnel, despite serious shortfalls in the staffing levels for most of the cadres, particularly in the rural health facilities.”<sup>660</sup> PHR has been informed that these controls appear to have been recently lifted or reduced. A WHO team working on the 3 by 5 treatment initiative found thousands of unemployed health workers in Kenya. According to WHO Director-General Dr. Jong-wook Lee, the WHO team “was informed that 4,000 nurses were currently unemployed owing to economic policies that have restricted the recruitment of health workers into the public sector.”<sup>661</sup>

An example of a specific restriction on government spending on civil servants can be found in Zambia. Zam-

Zambia had agreed with the IMF that in its budget its ratio of civil service wages to GDP would not exceed 8.0%, which itself represented a significant increase from the 5.3% of GDP that wages represented in 2000.<sup>662</sup> However, in an effort to retain its civil servants, Zambia introduced a housing sector allowance, which increased the ratio of wages to GDP to 8.6% in 2003. The housing allowance was one of a number of measures contributing to the significant increase in civil service wage increases. Others were large wage increases to security and defense forces, as well as hiring additional teachers and wage increases for teachers. As a result of breaking the 8.0% limit, Zambia was placed on a special IMF staff monitored program from July 2003 to June 2004, and instituted a series of measures to reduce its wage bill. The hiring of all new civil servants (other than to replace those who departed) was frozen, though the freeze did not apply to doctors, nurses, or teachers. Also, the housing allowances were cancelled.<sup>663</sup>

Curiously, as the IMF staff monitoring program drew to a close in June 2004, Stephen Lewis, the UN Special Envoy on HIV/AIDS in Africa issued a statement on the difficulty of the IMF program in Zambia, and cited the Ministry of Health's inability to hire new workers.<sup>664</sup> This statement may indicate of the need for better understanding and awareness of information on macroeconomic policies and their relationship to social sectors. Or it may indicate a policy change implemented after the letter of intent was written in November 2002, possibly because the wage budget overrun appears to have exceeded projects from that time. A year later, a joint statement issued by the Zambian government and IMF staff reported, "The Government has explained to the IMF staff team that the wage bill, including housing allowances, is projected to be about . . . 2.5 percent of GDP above the 2003 budgeted amount."<sup>665</sup>

Ghana was reportedly punished for providing additional allowances to health workers and other civil servants. In late 2003, Professor Jeffrey Sachs stated that the IMF was insisting that Ghana remove these allowances. Finance Ministry officials in Ghana are said to have reported these unbudgeted wage increases to government workers were key factors in preventing Ghana from meeting IMF-set budget targets in 2002. It has been reported that as a result, the IMF and other donors "failed to disburse loans worth \$147 million in the last quarter of 2002."<sup>666</sup>

Feared macroeconomic impacts of substantial amounts of foreign assistance can put that assistance in jeopardy. Uganda's strict ceiling on its health expenditures recently came to the fore because of a grant from the Global Fund. The \$52 million grant awarded to Uganda in 2002 did not have fit within its health budget, nearly preventing Uganda from accepting the grant.

Negotiations among the Global Fund, health ministry, and finance ministry officials led to an agreement in 2003 that would enable Uganda to accept the Global Fund money without reducing Uganda's own health spending.<sup>667</sup> The finance ministry agreed to receive the funds outside of the normal health budget, thus avoiding the ceiling. Beginning in July 2004, however, the Global Fund money (and other grants) will have to fit within the health sector ceiling in order for Uganda to accept the funds. The ceilings will be raised to accommodate Global Fund grants; the Fund had approved \$135 million in grants to Uganda through 2003. As of January 2004, though, health officials were still negotiating with the finance ministry to ensure that the health sector ceiling will have the room necessary for these as well as any other grants that may come in.<sup>668</sup> More recently, however, health ministry officials have indicated that in fact the health budget remains the same, suggesting that the Global Fund money will continue to be received through a separate channel.<sup>669</sup>

In response to criticism it was receiving about Uganda's temporary refusal to accept Global Fund money without reducing its own health spending, the IMF issued a letter denying their involvement in Uganda's actions: "It is not true that Uganda may have to refuse aid for health or any other poverty-eradication programs in order to adhere to IMF-imposed guidelines." The letter did state that "managing large aid flows and their impact on the economy at large is a legitimate concern for governments." However, it continued, "In the specific case of Uganda, given that the aid flows in question are to be used for top priority spending such as imports of life-saving drugs and other essential medical supplies, we do not see any adverse effects on the macro economy."<sup>670</sup> Aid spent on imports has lesser macroeconomic effects than aid spent on domestic goods and services.<sup>671</sup>

In South Africa, domestic health spending was long constrained because of the country's economic strategy. In 1996, South Africa's democratic government initiated a macroeconomic strategy called the Growth, Employment and Redistribution strategy (GEAR), which included such objectives as reducing the deficit, keeping inflation low, and promoting export-led growth. Under the policy, the tax to GDP ratio was to decrease from 26% to 25%, and government spending was to increase at a rate slower than overall growth, thus requiring strict control of public spending.<sup>672</sup> The restrictive fiscal policies meant that increases in spending would have to come from re-allocations from the urban middle class, not new resources. Per capita health spending did not increase from the end of apartheid until very recently with the ARV rollout plan.<sup>673</sup>

### *Effect on access to health care: User fees*

One result of health sector spending ceilings – along with a lack of resources and other factors that might limit government spending regardless of ceilings – is that governments often must resort to user fees to help fund their health systems. User fees, also called cost recovery, have been shown to limit the access of the poor to health services. This conflicts with government right to health obligations, as “health facilities, goods and services must be affordable for all.”<sup>674</sup>

Indeed, user fees appear to almost uniformly reduce access to health services by poor populations.<sup>675</sup> Studies of some of the first countries in which user fees were introduced showed a decrease in health service utilization in Ghana, Zaire, Swaziland, and Lesotho after those fees were introduced.<sup>676</sup> In Ghana, the negative impact was strongest in rural areas.<sup>677</sup> Attendance at a clinic for sexually transmitted diseases in Nairobi, Kenya, fell 65% for women and 40% for men in the nine months after fees were introduced.<sup>678</sup> In Swaziland, a fee increase reduced use of such vital services as management of diarrheal diseases, STDs, acute respiratory infections, and infant immunizations.<sup>679</sup> Médecins Sans Frontières has estimated that user fees in Burundi prevent about 850,000 people (in a country of about 6 million people) from accessing health care. For most of the population, the user fees cover the full cost of treatment (the cost of medicine, tests, and medical acts) plus 15% of the cost of the price of medicine, added to cover costs for those unable to pay.<sup>680</sup>

Exempting the poor from these fees rarely works in practice.<sup>681</sup> When people are unable to access health services, they commonly resort to harmful practices such as self-diagnosis and self-medication.<sup>682</sup> Even though informal charges may exist even where user fees do not, eliminating user fees can significantly increase poor people’s access to health care. For instance, in South Africa, almost as soon as health services became free for all children under six, the number of child patients nearly doubled in some health facilities in Gauteng province. The *South African Health Review of 1996* stated that this increased attendance demonstrated that user fees had been a barrier to healthcare.<sup>683</sup>

### **Need for end to restrictions**

These policies limit the ability of African and low-income countries to spend their own resources on the health sector, including but not limited to spending on health personnel. They also prevent or risk preventing countries from accepting foreign assistance, particularly foreign assistance that has not been anticipated. As explained earlier, such limitations would only be justified on the basis of human rights if the macroeconomic impact of the additional spending, or of accepting addi-

tional foreign aid, would harm human rights more than the additional funding would promote them. Because increased health spending so clearly and significantly promotes human rights, whereas the potential negative impact macroeconomic effects is less direct, and measures could be taken to reduce that negative impact (such as social welfare programs),<sup>684</sup> the presumption must be that increased foreign assistance and increased domestic spending on health promotes human rights.

Increased health spending does not automatically promote human rights. The funds must be well-managed and spent effectively. Funds meant to purchase supplies that never reach the health provider or patient, or that build a health clinic that cannot be staffed, will not contribute to people’s health. These are genuine concerns requiring strategies to ensure that the money is used productively. Limiting the funds, through health sector ceilings will not advance this goal, however.

A growing body of evidence indicates that not only does additional spending on health, including through foreign assistance, directly promote the right to health, but it actually promotes the very growth that the constraints are meant to protect. Three of the central macroeconomic concerns that lead to restrictive policies such as overall budget spending ceilings are the currency exchange rate and its impact on export-led growth; inflation, and; fiscal deficits.

It should be clearly stated that the macroeconomic stability that these policies seek to promote is desirable. As a top IMF official had stated: “Macroeconomic stability is critical, both for fostering rapid growth as well as sustained poverty reduction. Periods of macroeconomic instability can result in greater inequality (as the rich are more capable of protecting their assets in such situations), prove more harmful to the poor, and may result in the *creation* of more poor, as non-poor fall below the poverty line in periods of crisis. Moreover, in periods of macroeconomic instability, the pressures for budgetary retrenchment often affect the poor most.” And the growth that macroeconomic stability can facilitate (though does not alone create) is a “forceful engine” of poverty reduction.<sup>685</sup> The specific issue is that ceilings on government spending on health and other social sectors, as well as restrictions on salary and benefits for or hiring of health workers, cannot be justified as means to promote macroeconomic stability because of the negative human rights impact of these measures.

### *Growth and poverty reduction*

The IMF’s overall objective in its policy advice and assistance is to “facilitate the transition to the point where low-income members can rely predominantly on private sources of financing.”<sup>686</sup> That is, while supporting increased domestic spending and foreign assistance on

poverty reduction,<sup>687</sup> the IMF works to ultimately enable countries to graduate from dependency on aid. This requires economic growth.

The IMF considers the growth of exports to be “critically important.”<sup>688</sup> Changes in the currency exchange rate can affect export levels. It is possible that large inflows of aid, if they were spent on the domestic economy (as opposed to imports), will cause prices of domestic goods to rise (because of increased demand) relative to the prices of exports (which are unaffected by aid, as these are determined by world prices). The result can be an appreciated real exchange rate, which means that exports will become less competitive on the world market, so the export sector will become less profitable. This is known in the economic literature as Dutch Disease.<sup>689</sup> Both the Bank and the IMF have acknowledged that to the extent that aid does lead to an appreciation of the real exchange rate, and a resulting decrease in export-sector productivity, monetary and exchange rate policies can be adjusted to minimize these effects.<sup>690</sup>

Besides affecting growth generally, harm to the export sector can lead to unemployment, and if many people who are poor are employed in export-producing industries, harm to these companies will harm the poor. If aid were to harm people employed in the export sector, social safety nets must be available to limit the harm. It is therefore quite reasonable to be concerned with a stable exchange rate and to disfavor policies that appreciate this rate. However, limiting foreign assistance is not an appropriate way to do so.

First, empirical evidence on the existence of Dutch Disease is mixed.<sup>691</sup> Professor Jeffrey Sachs has gone so far as to observe: “The risks of currency overvaluation from donor-financed health spending are way overblown. . . . I don’t know of a single country case where increased donor-financed health spending to respond to epidemics such as HIV/AIDS has been a trigger for macroeconomic instability. On the contrary, there is real and shocking macroeconomic instability caused by the failure to respond to such epidemics, since these epidemics result in a cascading destruction of families, communities, and businesses.”<sup>692</sup> A response to these epidemics requires addressing the health sector human resource crisis.

Second and perhaps even more significantly, investments in health, education, and other social sectors themselves promote growth. Healthier, better educated citizens are more productive citizens. From this perspective, aid promotes growth by reducing poverty. In other words, the very aid that might be viewed as harming productivity can, in fact, increase productivity.<sup>693</sup> The IMF itself recognizes that countries in sub-Saharan Africa “showing signs of economic progress . . . have given greater priority to public spending on health care,

education, and other basic social services.” The IMF also urges that African “Governments should increase the quantity and quality of basic health care, education, and other high-priority services,” especially through “a vigorous campaign against the HIV/AIDS epidemic.”<sup>694</sup>

A literature review from 2000 reviewed the impact of aid on economic growth in 71 cases. In the majority of the cases (41), the aid resulted in significant economic growth. By contrast, only a single case resulted in a significant negative impact on aid. More recent studies have confirmed the link between international assistance and economic growth.<sup>695</sup> The United Kingdom’s Department for International Development (DFID) has recognized that “the amount of aid given to a country should be determined in a medium-term perspective. . . . This assessment should not be distorted by excessive concern about short-run management issues.”<sup>696</sup> The World Bank has affirmed that aid can contribute to export-related productivity that can offset and outweigh possible short-term reductions in productivity of the export sector.<sup>697</sup>

Aid must be spent productively and managed well to promote growth. As a significant minority of cases in the literature review also demonstrates, aid does not inevitably promote economic growth. Yet when aid is well-managed and wisely spent, as DFID and the World Bank recognize, it can be quite beneficial to the economy. This echoes the powerful findings of the WHO Commission on Macroeconomics and Health described earlier, that investments in health have huge economic benefits.

### *Inflation*

Another concern that drives these economic policies is maintaining a low and predictable level of inflation. High inflation can discourage savings and investment, thus impeding economic growth.<sup>698</sup> High inflation can be particularly harmful to the poor, as their few assets quickly lose their value as prices rise and the value of real wages falls.<sup>699</sup> The inflation rate is a key area of IMF concern. Extremely high inflation (hyperinflation) can spell economic disaster. Indeed, it will be difficult for Zimbabwe to make headway in reducing brain drain so long as hyperinflation and the accompanying political and economic crisis persists.

By increasing the monetary supply, foreign assistance could contribute to inflation, though whether and the extent to which it does so will vary by the nature of the aid and how it is spent. As a DFID policy paper observes, “aid flows are not necessarily inflationary,” and an “appropriate monetary and exchange rate policy” can mitigate any damage that may occur. While an increase in aid, and so an increase in the money supply, might in itself cause inflation, economic policies can be

implemented to offset this effect. For example, a floating exchange rate should “leave the overall growth in the money supply consistent with the inflation target.”<sup>700</sup>

Even to the extent there is inflation, any possible damage is also mitigated by the low inflation targets. Oxfam reviewed IMF programs for twenty countries, and found that for sixteen, the inflation target was less than 5%. The target was still below 10% for an additional three countries.<sup>701</sup> In other words, even if there is additional inflation from aid, overall inflation should remain low, quite probably too low to have any negative impact on growth. Nobel Laureate Amartya Sen has found no clear evidence that inflation less than 15-20% negatively impacts growth.<sup>702</sup>

### *Deficits*

The IMF and the neo-liberal economic framework upon which its policies are based also stress low budget deficits. Deficits cause concern for several interrelated reasons. By putting into the economy money that they do not have (by spending it), governments would be artificially increasing demand, which could contribute to inflation. The extra government spending could also affect the currency exchange rate, reducing the competitiveness of the country’s exports and so reducing export-led growth.<sup>703</sup> Also, interest payments on the deficit can reduce spending available on other budget items, including social sectors.

Assistance, at least in the form of grants, does not affect budget deficits. Traditionally, the IMF has excluded grants from measures of revenue, primarily because grant aid was considered too volatile and unpredictable. Grants therefore contributed to fiscal deficits in IMF calculations because spending would increase without a corresponding increase in revenue. According to a 2003 World Bank guidance note, however, the IMF has now accepted that for countries that can rely on aid for the medium-term – in other words, the aid will be predictable and sustained – the aid can be included as revenue, and therefore would not contribute to the fiscal deficit. The World Bank also accepts that sustainable grants flows should be counted as revenue.<sup>704</sup> Therefore, fiscal deficits should not be a reason that the IMF uses to pressure countries not to accept grant aid.<sup>705</sup>

However, the risk of running up a fiscal deficit might still be used to justify budget ceilings or other macroeconomic policies that restrict domestic spending on health and other social sectors. Overall budget ceilings could result from the requirement that governments not exceed a deficit of a certain size, and public spending will have to be limited to achieve that target. While some budget reallocation within an overall budget ceiling is possible – and often desirable, perhaps even required by countries’

human rights obligations – the resulting sector ceilings may well limit health spending. If a country is permitted to go into greater deficit, greater domestic health spending could be possible.

In some cases, deficit spending on the health sector could be accomplished while maintaining a relatively low deficit. In Senegal, a three-year IMF program sought to reduce the deficit from 4.0% of GDP to 3.5% of GDP.<sup>706</sup> If the extra 0.5% GDP was used for the health sector rather than for deficit reduction, the health budget could have been doubled for each year of the program. In one extreme example, a 3-year IMF program has required Cameroon to have a budget surplus by 2005. Cameroon would more than double its health spending if it could shift to the health sector the funds that it is required to save in order to move from a 0.7% of GDP budget deficit to a 0.7% budget surplus.<sup>707</sup>

By contrast, in 2003 the average member of the European Union had a budget deficit of 2.6% of GDP in 2003. France, Germany, and the United Kingdom had among the higher deficits relative to GDP at 4.1%, 3.9%, and 3.2%, respectively.<sup>708</sup> Under the Maastricht Treaty, which created the Economic and Monetary Union among European Union states, deficits may not exceed 3.0% of GDP.<sup>709</sup> Several countries that joined the European Union in 2004 had even higher deficits relative to GDP in 2003. The deficit in Poland was 4.1% of GDP, in Hungary 5.9%, and in the Czech Republic 12.9%.<sup>710</sup>

Even where African countries do have relatively high deficits, the benefits of increased health spending, which could be enormous, will likely outweigh the benefits of deficit reduction from a human rights perspective. For example, a three-year IMF program in Rwanda sought to reduce the deficit from 9.9% of GDP to 8.0% of GDP. The 1.9% of GDP that the IMF determined should be used on deficit reduction could have been used instead to double Rwanda’s health and education budget in each year of the program.<sup>711</sup> But would the health and education consequences of Rwanda keeping the higher deficit have been so severe that they would outweigh the benefits of enormous increases in health and education spending? This seems most improbable.

The scale of deficit reduction – or increased health and education spending – of Cameroon, Senegal, and Rwanda are approximately in line with the level of increased health spending by low- and middle-income countries envisioned by the Commission of Macroeconomics and Health. The Commission estimated that these countries could increase health spending by 1.0% of GNP by 2007, and 2.0% of GNP by 2015. These spending increases would enable all sub-Saharan African countries, plus all other countries with a 1999 GNP per capita below \$1,200, to collectively increase their health

spending by \$35 billion by 2007, and \$63 billion by 2015.<sup>712</sup> In some countries, such increases may be possible through budget allocation and revenue increases. If not – or if countries want to increase health spending beyond the level envisioned by the Commission – deficit spending should be an option that they weigh seriously.

Given the strong negative impact that failing to significantly increase health spending will have on human rights, the burden of demonstrating that health spending increases that add to the fiscal deficit will, on balance, harm human rights must rest with the IMF and finance ministries. Absent such a demonstration, common sense should prevail. It must be assumed that increased investments in health and other social sectors will promote human rights, even if they do increase fiscal deficits.

The question of whether budget ceilings on domestic spending can be justified as a means of reducing debt must also be considered in light of several other factors, beyond the urgent need for increased health spending, and the enormously positive impact on human rights this may have. As discussed above, spending in health, education, and other social sectors will increase productivity, which will lead to increased economic growth, and increased tax revenue for the government, reducing the deficit. By contrast, without the investments needed to significantly reduce the burden of AIDS and other diseases and unhealthy conditions, workers and others who contribute to the economy will perish or be less productive, leading to reduced tax revenue, increasing the deficit.

### *Need for a new approach*

Moreover, current policies are not working, at least where health and human rights are the indicators. The explosion of AIDS and the continued heavy disease burden, particularly in Africa, of numerous other diseases and conditions such as malnutrition, has occurred despite improvements in economic indicators. On the macroeconomic front, the news is generally good: “Since the mid-1990s, there has been a marked improvement in inflation performance as well as fiscal and external positions of low-income countries, with these gains being even stronger in countries that have had, or now have, PRGF [Poverty Reduction and Growth Facility] arrangements. Inflation rates in low-income countries are at their lowest levels in two decades, reflecting receding macroeconomic imbalances. Fiscal deficits have also narrowed. And while current account deficits have remained broadly unchanged, external reserve positions have strengthened considerably.”<sup>713</sup> GDP growth of low-income countries after the mid-1990s reached close to 4%, and 4.5% for countries that had PRGF arrangements since 1998. The PRGF arrangements are IMF concessional lending programs that are framed around

Poverty Reduction Strategy Papers, and so are intended to be more pro-poor than early IMF loan programs.<sup>714</sup> The medium inflation rate in low-income countries dropped to below 5% in 1998, and inflation in PRGF countries “compares favorably with . . . the industrialized countries.” Fiscal deficits had decreased from a median of 6.5% of GDP in the 1980s to about 4% in recent years.<sup>715</sup>

Yet the health and human rights situation is poor, and could get worse. Certainly it will not improve significantly without substantial increases in health sector spending. Continuing to squeeze health spending in order to reduce fiscal deficits further is the wrong approach. Therefore, these restrictions (whether from foreign or domestic sources) cannot be justified on human rights grounds, and so must end.

### **Recommendations**

*1. The IMF, World Bank, and other donors must not penalize, or indicate that they might penalize, countries that break overall spending ceilings because of increased spending in health, education, and other sectors and activities needed to promote human development, including to enhance salary and benefits to health staff or to hire new health personnel. The IMF and World Bank should immediately issue joint or separate statements announcing this policy. These statements should reiterate their support for additional spending in these sectors, including on human resources. To that end, they should encourage flexibility in budget ceilings in these sectors, as well as a moratorium on any restrictions on hiring, salary and benefits in these sectors. Staff of international financial institutions should actively share the statements and policy with key government officials, including in finance ministries.*

The IMF, World Bank, and other donors have tremendous economic leverage in many low-income countries. If they dislike the policies of these countries, they can take such steps as denying, delaying, or reducing debt relief, loans, or grants. Or they might refuse to approve a Poverty Reduction Strategy Paper<sup>716</sup> or compel countries to implement new restrictions. The IMF also has a powerful “signaling effect” that affects whether countries receive aid from other creditors and donors. An IMF program that is on-track indicates the presumed soundness of a country’s economic policies, giving a green light to other creditors and donors to provide grants and loans. By contrast, if a country deviates from IMF-backed policies and the country’s IMF program is suspended or canceled, this signals to other creditors and donors that the country’s economic policies are flawed.

This could make it very difficult for the country to receive credit or aid.<sup>717</sup>

Restrictions on health and other social sector spending are harmful and misguided. It would therefore be inappropriate for the IMF or any other organization or donor to penalize, or indicate that it might penalize, a country that breaks the overall spending ceilings because of increases in health or other social sector spending.

The sector ceilings are set by national governments, but since they are the means by which governments ensure that their budgets will be consistent with overall ceilings, they are intimately related to these higher-level ceilings. Indeed, this process of divvying up a pre-determined budget may place extra pressure on those sectors of government that are of special importance to the poor, such as health and education. The poor often lack political power, and so in a zero-sum process of dividing up the budget, their interests are likely to be slighted.

In addition to not penalizing low-income countries in this situation, the IMF and other donors and creditors should make it clear to them that they will not penalize them in the future. Otherwise, the threat of punitive action will continue to hang over national ministries, and influence them in ways that will promote adherence to spending limits, even when that adherence is detrimental to human rights.

As the most influential voices on economic policy, the IMF and World Bank should immediately issue joint or separate statements announcing this policy. This statement should be a prelude to a future policy, which may take a little time to formulate, that will enable countries to continue to receive the benefits of targets – their assistance in the planning process – without the constraints of ceilings. Several possibilities are discussed in the next recommendation.

It should be recognized that it will not always be easy to determine precisely what causes a government to exceed an overall target, as there will likely be several contributing factors. Perhaps a country will exceed the overall target because both health and military spending exceed government-set sector limits. In Zambia, the housing allowance, increased wages for security forces, and hiring new teachers all contributed to that country exceeding the 8.0% of GDP limit on civil servant spending. In such cases, it is important that any effort to return the country to the target (such as rolling back of wage or employment increases) does not affect social sectors. Also, creditors or donors should not deny grants or loans to the country, or otherwise penalize them, as this could discourage necessary increases in social sector wages or hiring. For example, if increases in security-force wages bring civil service spending close to the ceiling, the possibility of penalization if the country exceeds the ceiling would likely prevent the health ministry from

increasing salary and benefits for health workers, however much those increases might be needed. These complexities indicate the importance of the type of policy changes discussed in the next recommendation.

The IMF and World Bank statement should also recognize that the human resource crises in the health and education sectors, worsened by the AIDS pandemic, will often require employing additional skilled health workers and educators, as well as increasing salary and benefits to enhance recruitment and retention efforts. To that end, the statement should remind governments of these institutions' support for more spending in these sectors. The statement should promote flexibility in sector ceilings in the health and other social sectors. There may be ways to remove these ceilings altogether (such as by excluding certain sectors from macroeconomic measures), but for the time being, encouraging far greater flexibility for social sector ceilings will be an important advance. The statement should also encourage a moratorium on restrictions on hiring and remuneration in social sectors. Given the fact that inadequate spending in these sectors and shortage of health personnel are costing lives today, every effort to enable increased spending and recruitment of health personnel must be taken immediately, even before new policies are formulated.

*2. The IMF, ministries of finance, and their partners should ensure that macroeconomic constraints do not limit the effective and productive spending of developing countries on health, education, and related sectors. The changed policies should be publicized among all stakeholders, including finance, health, education, and other national ministries.*

In line with the need discussed above to justify any restrictions on human rights grounds, and the lack of any justification so far – and much evidence pointing to the probability that such justifications could rarely, if ever, exist – restrictions on health and other social sector spending must cease to exist, at least in their current form. Therefore, the nature of the limits must change so that any limits, if they continue to exist, do not force or induce countries to limit spending in health, education, or other social sectors. The exception would be if, in a particular case, it is shown that the harm that comes from the increased spending will outweigh the good the spending brings about, with the proper measure being the impact on human rights.

One possibility is to revise policies to increase flexibility around spending limits. Budget ceilings could be made flexible so that they can be easily revised to accommodate increases in health and social sector spending that had not been anticipated when setting budget ceilings, or for any other reason were not factored into the

ceilings. The flexibility would enable whatever limits or targets exist to expand to accommodate unexpected external assistance and higher domestic spending in these sectors than originally planned.

Another possibility would be for the IMF to revise any economic targets they promote – such as overall government spending or overall civil servant spending – to exclude health and other social sectors. For example, rather than a target of \$3 billion for overall government spending, the target would be \$1.4 billion excluding social sector spending. Insulating social sectors in this way would prevent economic targets from conflicting with the imperative to increase health and other social sector spending. Targets for social sectors would remain to assist in planning.

Medium-term expenditure frameworks and comparable documents should be revised, or their use changed, to reflect the changed nature of spending targets. The new frameworks and documents must be drafted in ways that ensure there is no risk that they will be used in any way to obstruct either foreign assistance or national decisions to increase spending in health, education, and related sectors.

*3. WHO and the World Bank should collaborate to educate finance ministries on the economic benefits of investing in health. Health ministries should also receive this information.*

Finance ministers and other government officials can be expected to be more receptive to increased spending in health, education, and other social sectors if they recognize that such spending contributes to productivity and economic growth, which the finance ministers likely see as important to their missions. WHO and the World Bank should therefore educate finance ministers on the economic benefits of investing in health, including those described in the final report of the Commission of Macroeconomic and Health. These organizations should also educate ministers of health, education, and other social sectors on the economic value of investing in these sectors. Should conflicts arise between these ministries and the finance ministry, this information should empower social sector ministers, possibly helping them obtain higher spending for their sectors.

*4. African countries and any other developing countries with formal or informal freezes on hiring or salary and benefits of health personnel should end those freezes.*

At a time when African countries are in tremendous need of more health workers, no country should limit the number of health workers employed because of artificial constraints on hiring, whether through a cap on the wage bill (as in Zambia) or a ceiling on health sector

spending. Therefore, any country that has a freeze on hiring health personnel or the salary and benefits of health personnel should immediately terminate that freeze. Issues of finding funds to pay health workers will remain and will have to be addressed. But ending hiring and salary freezes are necessary steps forward.

*5. The IMF, World Bank, and finance ministries should publicize the precise nature of existing economic restraints that may limit substantially higher country spending on health and other social sectors, and create mechanisms for on-going transparency of macroeconomic policies and how they impact the health and education sectors. Such mechanisms should welcome NGO input. The PRSP process, which includes NGO participation, is one possible forum.*

In order to change macroeconomic guidelines and requirements so that they do not interfere with social sector spending, it is important to have a greater understanding of exactly what these guidelines and requirements are (including what are merely guidelines and what is required), and what role different actors (primarily the IMF and finance ministries) have in setting budget ceilings and other policies that limit social sector spending and public sector remuneration or staffing levels. As efforts are made to change these policies – or if despite challenges to the policies, they remain in place – it is critical that NGOs and other stakeholders remain abreast of the changes (or lack of changes) so that they can monitor them, effectively advocate for more changes, and otherwise plan their actions around the current policy environment.

The World Bank is working to organize a high-level policy dialogue and related activities that could go a long way toward clarifying the nature of the restraints, as well as creating some mechanisms for continued discussion and elucidation around these issues. The dialogue, which as of May 2004 was still in the planning stages and likely to take place in spring 2005, will seek to clarify the nature and impact of macroeconomic constraints in the health and education sector, particularly as they affect HIV/AIDS and human resources. The ultimate objective of the dialogue is to help African countries overcome macroeconomic constraints, both real and perceived, that impede an effective response to combating HIV/AIDS and achieving the health-related Millennium Development Goals. Specific outcomes of the policy dialogue are expected to include a literature review on linkages between macroeconomic policies and human resources for health and education, including relationships to increased development assistance; several case studies of these issues; the policy dialogue itself; a toolkit on HIV/AIDS and macroeconomic issues that

will be distributed within health and education sectors of African countries, and; country-specific action plans based on the toolkit. Post-dialogue conferences in Africa and follow-up videoconferences are also planned.<sup>718</sup>

Such a dialogue should help determine the exact nature of the policies that have limited country spending on health and education, whether through domestic resources or through being unable to accept international assistance. The IMF has suggested that cases where “the macroeconomic consequences outweigh the benefits of higher spending in the immediate period” will be relatively few.<sup>719</sup> If the circumstances are truly rare, it could be that in most cases the IMF will support increased aid, in line with its stated support for aid. If finance ministries better understood current IMF policies, could potential significant conflicts over international assistance be avoided?

The dialogue might also help the IMF and finance ministries understand the impact and limitations of their policies. An IMF document indicates that ceilings on total spending are generally not a problem because “additional priority spending for poverty reduction could be accommodated by cutting back spending in non-priority areas.”<sup>720</sup> Yet the amount of spending on priority areas such as health must increase tremendously. With the possible exception of countries that spend quite excessively on their militaries, cutting back in non-priority areas sufficiently to meet health and other priority needs could well be impossible.

The IMF, ministries of finance, health and education ministries, and other stakeholders should fully cooperate with and support this initiative. The dialogue and related activities should lead to a new agreed upon understanding of the goal of macroeconomic policies as they relate to health and other social sectors. The goal of these policies should be to promote human rights, including the need for an effective response to HIV/AIDS and to achieve the Millennium Development Goals. Therefore, policies should be guided by human rights principles, including the need to ensure the population’s health and education. This principle should be embodied in the tool-kit that will be one product of the dialogue.

Since the policy dialogue will not take place until spring 2005, and changes that result from the dialogue and associated activities will likely take months if not years to occur, the World Bank and IMF statement described in the first recommendation of this section remains critical. The health sector human resource crisis, especially as exacerbated by HIV/AIDS, is so severe that policy changes to allow significantly increased health sector spending cannot wait. Delay will cause irreparable harm, including delayed scale-up of AIDS treatment and other measures, with the deaths that will result. Further, if the dialogue leads to the acceptance of the notion that

human rights principles should guide macroeconomic policies, and the recognition that policies that limit health spending or restrict health sector hiring or remuneration cause severe harm to the right to health, it is probable that a similar policy will result from the dialogue.

Along with the World Bank-initiated dialogue, another forum for shedding more light on macroeconomic policies and their impact on the health and other social sectors is the PRSP process. The importance of the process to national programming in both macroeconomic and poverty reduction policies and NGO participation in the process makes it a logical forum for these discussions.

*6. The US Congress should hold hearings and/or request a report from the General Accounting Office to explore the nature and extent of economic policies or practices that discourage countries from increasing spending on health and other social sectors, as well as the role of the IMF and other international financial institutions in promoting these policies.*

A World Bank-led policy dialogue of how macroeconomic policies affect health and education will likely yield valuable information and an increased understanding of these effects as well as just what the policies are. However, the review will be unable to focus in-depth on every country and may focus too narrowly on HIV/AIDS. There is also no guarantee of how much information will come from the dialogue.

To complement the World Bank-led policy dialogue, the US Congress (and other national legislatures) should instigate its own fact-finding missions on these policies. Options open to Congress include holding hearings and requesting a report from the General Accounting Office, Congress’s investigative arm. Given the scope of United States foreign assistance, including USAID offices in dozens of countries and a major US HIV/AIDS initiative in a dozen African and two Caribbean countries, the investigations have the potential to shine a bright light on practices and policies in Africa and around the world. These investigations should be sure to cover policies that restrict spending on public sector health workers.

Along with providing, at least in select countries, more information than is likely to come out from the World Bank-led process, the investigation will increase Congress’s involvement in both the issues of human resources for health issue and of macroeconomic constraints. This involvement should increase congressional interest in these areas. Congressional interest is critical, for Congress must prod relevant US officials to work on these issues from within international financial institutions, and Congress will have to allocate significant sums of money to help meet health systems needs in Africa.

7. *The US Congress should require that the Treasury Secretary direct the U.S. Executive Director at each international financial institution, including the IMF, to advocate for changes in the policies of international financial institutions so that macro-economic concerns no longer limit spending on health and other social sectors, whether domestic spending or international assistance. Other G8 countries should take similar actions.*

In 2001, the US Congress required the Treasury Department to oppose IMF, World Bank, and other international financial institution loans that require user fees or service charges on poor people for primary healthcare (including prevention and treatment efforts for HIV/AIDS, malaria, tuberculosis) or for primary education.<sup>721</sup> This requirement can serve as a model for Congress intervening in damaging IMF policies. Congress should require the Treasury Department to work to change these policies, and to ensure that the IMF and its partners carry out a variety of actions, including those described in the preceding recommendations. The Treasury Secretary should report back to Congress on the Treasury Department's efforts and impact.

## NOTES

<sup>217</sup> Crime and insecurity are especially important factors in brain drain from South Africa. See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 18. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>; Phylicia Oppelt, "Treat the cause, not the symptoms." *Sunday Times (South Africa)*, Feb. 18, 2001. Available at: <http://www.suntimes.co.za/2001/02/18/insight/in11.htm>.

<sup>218</sup> See, e.g., Tikki Pang, Mary Ann Lansang & Andy Haines, "Brain drain and health professionals." *BMJ* (March 2, 2002) 324: 499-500. Available at: <http://bmj.bmjournals.com/cgi/content/full/324/7336/499>.

<sup>219</sup> See International Organization of Migration, Migration for Development in Africa (MIDA) Program, *The Non-Development of Africa: Political instability* (Oct. 2002). Available at: [http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide12\\_JPG.htm](http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide12_JPG.htm); David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>. Dr. Abra Fransch of the World Organization of Family Doctors (WONCA) has cited the following aspects of the declining human rights situation in Zimbabwe as contributing to brain drain in Zimbabwe: "1. lack of access to foreign currency; 2. lack of access to basic food commodities (even if affordable); 3. lack of access to fuel or transport; 4. difficulty in acquiring travel documents; 5. increasing difficulty in being able to have freedom to travel to other countries if desired; 6. inability to access even local currency; 7. increasing inadequacy of previously functional services - telephone, electricity, safe water; 8. breakdown in law and order and direct physical threat; 9. financial destitution impoverishment." E-mail from Dr. Abra Fransch, World Organization of Family Doctors (WONCA), Dec. 10, 2003.

8. *Donors should provide long-term commitments of foreign assistance for health systems to ensure a sustained and predictable aid flow.*

Donors should recognize that many recipients will likely need foreign assistance for years to come, and commit to providing aid on a long-term basis. This predictability will minimize any harmful macroeconomic effects that the aid may cause.<sup>722</sup> Donors should work to establish aid dispersal mechanisms that will ensure a sustained and predictable aid flow of a number of years. By removing (or at least lessening) aid volatility and lack of predictability, donors can go a long way towards removing the potentially destructive discomfort that the IMF and finance ministries can have at large inflows of aid. Predictability will have another advantage. It will also enhance the ability of low-income countries to create and implement health sector human resource policies, as they will be better able to match their plans to their resources.

Besides mitigating macroeconomic concerns, long-term donor commitments to foreign assistance for health systems are critical for another simple reason: it is needed. Many of the recommendations described in this report require significant funds, necessitating consistent donor support.

<sup>220</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 11. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf> ("Remuneration levels are potentially the most influential factor in healthcare worker's decision to migrate . . ."); Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: [http://www.world-bank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.world-bank.org/afr/teia/conf_0903/dela_dovlo.pdf) ("Salary levels are probably the most basic factor in retention."). *But see* "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 129 ("Despite substantial financial incentives, many commentators, including some employee representatives . . . emphasise that in many cases, pay is not the prime motive for leaving the country").

<sup>221</sup> See Global Alliance on Vaccines and Immunizations, *The health service brain drain - what are the options for change?* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).

<sup>222</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>. The draft Malawi Human Resources for Health Sector Strategic Plan 2003-13 blames low salaries and lack of career paths for many health care workers leaving the profession or the country. See *id.* at 17. See also Michelle Roberts, "Why I Came to the UK to Nurse" *BBC News*, May 12, 2004. Available at: <http://news.bbc.co.uk/2/hi/health/3704673.stm> (interviewing nurses from South Africa and Ghana whose prime reason for migrating to the United Kingdom was low pay back home).

- <sup>223</sup> Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf).
- <sup>224</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 14. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.
- <sup>225</sup> 13<sup>th</sup> International Conference on AIDS and STIs in Africa, Nairobi, Kenya, Sept. 21-26, 2003.
- <sup>226</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 16. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.
- <sup>227</sup> “Ghana: Special report on struggle to stop exodus of doctors and nurses.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 3, 2003. Available at: [http://www.irinnews.org/S\\_report.asp?ReportID=36969&SelectRegion=West\\_Africa](http://www.irinnews.org/S_report.asp?ReportID=36969&SelectRegion=West_Africa).
- <sup>228</sup> “Brain Drain: ‘Europe Poaching African Healthcare Workers.’” *afrol News*, May 28, 2004. Available at: <http://www.afrol.com/articles/12798>.
- <sup>229</sup> E-mail from Dr. Bernard Oduor Olayo, Medical Officer, Ministry of Health, Kenya, June 8, 2004.
- <sup>230</sup> See World Bank, *Better Health in Africa*, 1994, at 89. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>. A study of health care workers’ salaries in 15 African countries found that their 1985 levels were only 40-53% of their 1975, depending on civil service grade. Entry level salaries in Madagascar in 1988 were only 20-25% of their 1975 levels, and in the half decade from 1981 to 1987, public sector health care worker salaries in Tanzania fell by 56-75%. *Id.*
- <sup>231</sup> E-mail from Dr. Abra Fransch, World Organization of Family Doctors (WONCA), Dec. 10, 2003.
- <sup>232</sup> Andrew Meldrum, “The International Health Service: Mugabe says we are being stolen. All we want is better pay: The brain drain has badly hit Zimbabwe’s fragile health service.” *Observer* (United Kingdom), Aug. 10, 2003, at 13. Available at: [http://www.zimbabwesituation.com/aug12a\\_2003.html#link7](http://www.zimbabwesituation.com/aug12a_2003.html#link7).
- <sup>233</sup> “The Effects of Public Expenditure Policies on Education and Health Care under Structural Adjustment.” *In* Structural Adjustment Participatory Review International Network, *Structural Adjustment: The SAPRIN Report: The Policy Roots of Economic Crisis, Poverty and Inequality* (2004), at 165. Available at: [http://web.forumsyd.se/Arkiv/uploaded/SAPRI\\_8\\_PubExpend.pdf](http://web.forumsyd.se/Arkiv/uploaded/SAPRI_8_PubExpend.pdf).
- <sup>234</sup> See Barbara McPake et al., “Informal economic activities of public health workers in Uganda: implications for quality and accessibility of care.” *Social Science & Medicine* (1999) 49: 849-865.
- <sup>235</sup> *Id.* at 854, 857-58. See also World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 89. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf> (stating that because salaries may be “too little to support even a small family[, h]ealth professionals in public service in Africa . . . often find themselves forced to find additional paid work of some kind”).
- <sup>236</sup> “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>.
- <sup>237</sup> E-mail from Dr. Abra Fransch, World Organization of Family Doctors (WONCA), Dec. 10, 2003.
- <sup>238</sup> Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 5. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf).
- <sup>239</sup> E-mail from Dr. Abra Fransch, World Organization of Family Doctors (WONCA), Dec. 10, 2003.
- <sup>240</sup> See Global Alliance on Vaccines and Immunizations, *The health service brain drain – what are the options for change?* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php).
- <sup>241</sup> *Id.*
- <sup>242</sup> Barbara McPake et al., “Informal economic activities of public health workers in Uganda: implications for quality and accessibility of care.” *Social Science & Medicine* (1999) 49: 849-865, at 864.
- <sup>243</sup> “Halting Africa’s Health Brain Drain.” *BBC News*, May 19, 2003. Available at: <http://news.bbc.co.uk/2/hi/africa/3040825.stm>.
- <sup>244</sup> E-mails from Dr. Bernard Oduor Olayo, Medical Officer, Ministry of Health, Kenya, June 8 & 9, 2004.
- <sup>245</sup> See DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 15. Available at: [http://www.healthsystemsresource.org/publications/reports/int\\_rec/int-rec-main.pdf](http://www.healthsystemsresource.org/publications/reports/int_rec/int-rec-main.pdf); “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>.
- <sup>246</sup> Amy Hagopian, “The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy,” at 67 (unpublished draft) (2003).
- <sup>247</sup> *Id.* at 58.
- <sup>248</sup> *The Comprehensive HIV/AIDS Management Strategy for Malawi*, Draft (Aug. 2001), at 106.
- <sup>249</sup> E-mail from Dr. Anne Conroy, Special Assistant to the Vice President of Malawi, Nov. 26, 2002.
- <sup>250</sup> See Bretton Woods Project, *Life under the IMF’s magnifying glass: A Zambian civil servant chafes at the collar*, April 5, 2004. Available at: [http://www.brettonwoodsproject.org/article.shtml?cmd\[126\]=x-126-42221](http://www.brettonwoodsproject.org/article.shtml?cmd[126]=x-126-42221).
- <sup>251</sup> “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>. A more recent article reports that “415 cars have been bought for senior health staff and tenders have also been completed on bids for the purchase of 500 motorbikes and 1,000 bicycles.” It is unclear whether these cars and other means of transport are particularly for staff working in underserved areas. See “Incentives for Health Personnel in ‘Deprived Communities,’” *Accra Mail* (Ghana), Jan. 26, 2004.
- <sup>252</sup> See “Ghana: Special report on struggle to stop exodus of doctors and nurses.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 3, 2003. Available at: [http://www.irinnews.org/S\\_report.asp?ReportID=36969&SelectRegion=West\\_Africa](http://www.irinnews.org/S_report.asp?ReportID=36969&SelectRegion=West_Africa).
- <sup>253</sup> See Lincoln Chen, *Harnessing the Power of Human Resources for Achieving the MDGs*, presented at the High Level Forum on the Health Millennium Development Goals, co-sponsored by the World Health Organization and World Bank, Geneva, January 9, 2004, at 5. Available at: [http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC\\_Geneva\\_Jan\\_9\\_2004.pdf](http://www.fas.harvard.edu/~acgei/Publications/Chen/LCC_Geneva_Jan_9_2004.pdf).
- <sup>254</sup> See World Health Organization, *The World Health Report 2004* (2004), at 65 (box 4.2). Available at: <http://www.who.int/whr/2004/chapter4/en/index7.html>.

- <sup>255</sup> See DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 15. Available at: [http://www.healthsystemsresource.org/publications/reports/int\\_rec/int-rec-main.pdf](http://www.healthsystemsresource.org/publications/reports/int_rec/int-rec-main.pdf). Nurses at district hospitals can receive as little as one-tenth the pay as physicians at those hospitals. *Id.*
- <sup>256</sup> See “Zimbabwe: Paramedics Vow to Continue Strike.” *Daily News* (Harare), Sept. 12, 2002. See also “Address Health Professionals’ Grievances,” opinion. *Herald* (Harare), Dec. 4, 2002.
- <sup>257</sup> See “Zimbabwe government hospital doctors end strike after four days.” *Agence France Presse*, March 27, 2001.
- <sup>258</sup> See Cape Argus, “South Africa; Docs: We’ll March - We Have No Choice.” *Africa News*, Feb. 5, 2004. See also Public Health & Welfare Sectoral Bargaining Council, *Agreement No. 1 of 2004: Recruitment and Retention Allowances: Agreement: Institution of a Non-Pensionable Scarce Skills Allowance: Designated Health Professionals Working in Public Health Sector Hospitals/Institutions as Managed by the Health Employer* (Jan. 28, 2004). Available at: [http://www.doh.gov.za/docs/misc/skills\\_allowance.pdf](http://www.doh.gov.za/docs/misc/skills_allowance.pdf).
- <sup>259</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 17. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>260</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>261</sup> Phone conversation with Professor Tim Martineau, International Health Research Group, Liverpool School of Tropical Medicine, May 4, 2004.
- <sup>262</sup> Global Fund to Fight AIDS, Tuberculosis, and Malaria, *Guidelines for Proposals: Fourth Call for Proposals* (Jan. 2004), at 17. Available at: [http://www.theglobalfund.org/pdf/2\\_pp\\_guidelines\\_4\\_en.pdf](http://www.theglobalfund.org/pdf/2_pp_guidelines_4_en.pdf).
- <sup>263</sup> E-mail from Toby Kasper, Global Fund portfolio manager, May 12, 2004.
- <sup>264</sup> E-mail from Toby Kasper, Global Fund portfolio manager, June 10, 2004.
- <sup>265</sup> See Global Fund to Fight AIDS, Tuberculosis, and Malaria, *Proposal Form: Fourth Call for Proposals* (Jan. 2004), at 35. Available at: [http://www.theglobalfund.org/pdf/3\\_pp\\_form\\_4\\_en.pdf](http://www.theglobalfund.org/pdf/3_pp_form_4_en.pdf).
- <sup>266</sup> See Consolidated Appropriations Act, 2004 (2004), Division D – Foreign Operations, Export Financing, and Related Programs Appropriations, 2004, Title II, PL 108-199 (“*Provided further*, That none of the funds appropriated under this heading may be made available for nonproject assistance, except that funds may be made available for such assistance for ongoing health activities”).
- <sup>267</sup> See US Agency for International Development Acquisition Regulation, sec. 731.205-71. Available at: <http://www.usaid.gov/policy/ads/300/aidar.pdf>; E-mail from Karen Doswell, USAID, Oct. 30, 2003.
- <sup>268</sup> See US Department of State cable 119780 (April 15, 1988). Available at: <http://www.usaid.gov/policy/ads/200/119780.pdf>.
- <sup>269</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 11. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>270</sup> “The perception that nursing is a *high-risk and unrewarding profession* (due to high workload, inadequate protection measures and lack of essential materials) is a deterrent to potential applicants.” Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 25. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf> (emphasis in original).
- <sup>271</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.
- <sup>272</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 17. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf> (Zambia); E-mail from Dr. Abra Fransch, World Organization of Family Doctors (WONCA), Dec. 10, 2003.
- <sup>273</sup> Physicians for Human Rights (Eric A. Friedman), *HIV Transmission in Health Care Settings: A White Paper by Physicians for Human Rights* (March 2003), at 47-49. Available at: [http://www.phrusa.org/campaigns/aids/who\\_031303.html](http://www.phrusa.org/campaigns/aids/who_031303.html).
- <sup>274</sup> Charles Sagoe-Moses et al., “Risks to Health Care Workers in Developing Countries.” *New England Journal of Medicine* (Aug. 16, 2001) 345(7): 538-541, at 538.
- <sup>275</sup> See Flávio Casoy, *Occupational Exposure to HIV among Health-care Workers: Perceptions of Risks and Rights*, (Unpublished) 2002, at 13.
- <sup>276</sup> See “Swaziland: Nurses Seek Greener Pastures.” *U.N. Integrated Regional Information Networks (IRIN)*, May 12, 2004.
- <sup>277</sup> Charlotte Schubert, “Nurses Disappearing from Developing Nations.” *Nature Medicine* (Aug. 2003) 9(8): 979.
- <sup>278</sup> World Health Organization, Department of Essential Drugs and Medicines Policy, <http://www.who.int/medicines/>. Accessed May 12, 2004.
- <sup>279</sup> Safe Injection Global Network (SIGN), *Annual Meeting Report 2001* (2001), at 35. Available at: [http://www.who.int/injection\\_safety/sign/meetings/past/en/2001MeetingReport.pdf](http://www.who.int/injection_safety/sign/meetings/past/en/2001MeetingReport.pdf).
- <sup>280</sup> See UNAIDS, *Financial Resources for HIV/AIDS Programmes in Low- and Middle-Income Countries over the Next Five Years* (Nov. 28, 2002). Available at: [http://www.unaids.org/about/governance/files/PCB13\\_FinancialResources\\_en.doc](http://www.unaids.org/about/governance/files/PCB13_FinancialResources_en.doc); UNAIDS, *Global HIV/AIDS-specific resource needs at October 2002* (Oct. 2002), at table 3. Available at: [http://www.unaids.org/publications/graphics/GlobalresourcesOct02/GRfigures\\_1002.doc](http://www.unaids.org/publications/graphics/GlobalresourcesOct02/GRfigures_1002.doc). The information is presented graphically, so the figures are an approximation.
- <sup>281</sup> Dr. Margaret Kariuki, co-author of a study on medical students and universal precautions, has “recommended that universal precautions should be a more visible subject in the curricula of medical schools.” Health & Development Networks Key Correspondent Team, “Health workers too scared to seek post-exposure prophylaxis for needlesticks.” *Health & Development Networks*, Sept. 23, 2003. Available at: [http://www.hdnet.org/13icasa/sept23\\_healthworkers.htm](http://www.hdnet.org/13icasa/sept23_healthworkers.htm).
- <sup>282</sup> See Ethiopia Country Coordinating Mechanism, *The Global Fund Proposal to Reduce HIV/AIDS and Malaria in Ethiopia* (July 2002), at 30. Available at: [http://www.theglobalfund.org/search/docs/2ETHH\\_234\\_0\\_full.doc](http://www.theglobalfund.org/search/docs/2ETHH_234_0_full.doc); Eritrean Partnership against HIV/AIDS,

Tuberculosis, and Malaria, *HIV/AIDS and Tuberculosis in Eritrea: Reducing the Threat and Providing Comprehensive Care and Support Services* (2003), at 77-79. Available at: [http://www.theglobalfund.org/search/docs/3ERTH\\_633\\_0\\_full.pdf](http://www.theglobalfund.org/search/docs/3ERTH_633_0_full.pdf).

<sup>283</sup> More than 40% of hepatitis B infections in health care workers in Africa are estimated to come from exposure to contaminated sharps. Annette Prüss-Üstün, Elisabetta Rapiti & Yvan Hutin, *Global burden of disease from sharps injuries to health-care workers (WHO Environmental Burden of Disease Series, No. 3)* (2003), at 25. Available at: <http://www.who.int/peh/burden/9241562463/sharps.pdf>. The mean hepatitis B vaccination rate for health workers in Africa is approximately 18%. *Id.* at 15.

<sup>284</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 12. Available at: <http://www.equinafrica.org/Resources/downloads/discussionpaper12.pdf>.

<sup>285</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 14, 34-35. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>286</sup> See International Council of Nurses press release, *Novel AIDS Treatment Programme for Health Care Workers in Zambia*, Nov. 13, 2003. Available at: [http://www.icn.ch/PR26\\_03.htm](http://www.icn.ch/PR26_03.htm).

<sup>287</sup> See Southern African Regional Network for Equity in Health (EQUINET), *ART Treatment access and effective responses to HIV and AIDS - Providing new momentum for accessible, effective and sustainable health systems: Issues and Options Briefing* (Dec. 2003), at 14. Available at: <http://www.equinafrica.org/bibl/docs/treatment%20access.pdf>.

<sup>288</sup> See DFID Health Systems Resource Centre & DFID Resource Centre for Sexual and Reproductive Health, *Scoping Study on the Impact of HIV/AIDS on Health Systems* (Nov. 2003), at 12. Available at: [http://www.jsiuk.com/docs/hiv\\_impact\\_study.pdf](http://www.jsiuk.com/docs/hiv_impact_study.pdf). See also Uta Lehmann & David Sanders, *South African Health Review 2002* (2002), at chapter 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>.

<sup>289</sup> The second most cited reason in the survey of Malawi nurses who had left the country was a high workload. See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>290</sup> Stella Zengwa, *Zimbabwe: Nurses under Pressure*, Equinet, <http://www.equinafrica.org/newsletter/newsletter.php?id=750>. Accessed Jan. 20, 2004.

<sup>291</sup> Uta Lehmann & David Sanders, *South African Health Review 2002* (2002), at chapter 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>.

<sup>292</sup> See Uta Lehmann & David Sanders, *South African Health Review 2002* (2002), at chapter 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm> (quoting a study that found “support and supervision, as well as organising peer support groups, is required to help prevent staff burn-out”); Stella Zengwa, *Zimbabwe: Nurses under Pressure*, Equinet, <http://www.equinafrica.org/newsletter/newsletter.php?id=750>. Accessed Jan. 20, 2004 (quoting Stella Zengwa, President of Zimbabwe Nurses Association, “There is need to consider reducing working hours for nurses in order to reduce stress that is

causing burn out syndrome. There is need to conduct healing sessions and support groups for nurses suffering from burn out syndrome.”)

<sup>293</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 9. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>294</sup> Andrew Meldrum, “The International Health Service: Mugabe says we are being stolen. All we want is better pay: The brain drain has badly hit Zimbabwe’s fragile health service.” *Observer* (United Kingdom), Aug. 10, 2003, at 13. Available at: [http://www.zimbabwesituation.com/aug12a\\_2003.html#link7](http://www.zimbabwesituation.com/aug12a_2003.html#link7).

<sup>295</sup> Abiodun Raufu, “Nigerian health authorities worry over exodus of doctors and nurses.” *BMJ* (July 6, 2002) 325:65. Available at: <http://bmj.bmjournals.com/cgi/content/full/325/7355/65/a>. The nurse, Stella Ekpendu, also spoke of the importance of higher salaries. See *id.*

<sup>296</sup> World Health Organization, Regional Office for Africa, *Placing Health Workers at the Heart of Health Services Delivery in Africa: The People who Work for Our Health* (2002), at 6. Available at: [http://www.afro.who.int/hrd/hrd\\_pamphlet.pdf](http://www.afro.who.int/hrd/hrd_pamphlet.pdf).

<sup>297</sup> Strong consideration should be given to applying these recommendations to other developing countries as well, as many countries outside of Africa would benefit from them.

<sup>298</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 98-99. Available at: <http://www.worldbank.org/afri/pubs/bhaen.pdf>.

<sup>299</sup> See World Markets Analysis, *Healthcare, South Africa – Medical Provisions*, <http://www.worldmarketsanalysis.com/servlet/cats?ID=11142&subSite=WMMH&typeID=34&pageContent=crt>. Accessed Oct. 5, 2002. The data is from the Health Systems Trust.

<sup>300</sup> See World Bank, *Africa Region Human Development Working Paper Series, Better Health Outcomes from Limited Resources: Focusing on Priority Services in Malawi*, April 2002, at 41. The funding will also pay for five new 20-unit apartment buildings, which are “support infrastructure.” *Id.*

<sup>301</sup> PHR interviews, Eastern Cape, South Africa, April 21-22, 2004.

<sup>302</sup> See South Africa Clinic Audit Form (2002 draft), provided to PHR by the EQUITY Project in South Africa; e-mail from Xoli Mahlalela, EQUITY Project, Dec. 3, 2002.

<sup>303</sup> Private communication with Dr. Noluthando Ford-Ngomane, Health Systems Trust, April 21, 2004.

<sup>304</sup> See South Africa Clinic Audit Form (2002 draft), provided to PHR by the EQUITY Project in South Africa; Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 37. When rain water tanks run dry, water can be brought in by truck. See U. Lehmann et al., *Investigating the Roles and Functions of Clinic Supervisors in Three Districts in the Eastern Cape Province* (July 2001), at 5. Available at: <http://196.36.153.56/doh/docs/reports/2001/clinicsuper.pdf>.

<sup>305</sup> See Gilat Satellite Networks, *Gilat in Africa*, <http://www.gilat.com/post/GilatInAfrica.pdf>. Accessed Dec. 3, 2002. Satellite phones are not a panacea – they could be expensive to use, and like any equipment, they might not function properly. See U. Lehmann et al., *Investigating the Roles and Functions of Clinic Supervisors in Three Districts in the Eastern Cape Province*, July 2001, at 5. Available at: <http://196.36.153.56/doh/docs/reports/2001/clinicsuper.pdf> (citing an instance of “[a] state-of-the-art satellite phone . . . installed in [a rural clinic in South Africa] but . . . only worked for the few days following its installation.”).

<sup>306</sup> See South Africa Clinic Audit Form (2002 draft), provided to PHR by the EQUITY Project in South Africa.

<sup>307</sup> It should be noted that increasing Internet accessibility has the potential to accelerate brain drain by making Web-based recruiting agencies more accessible to health professionals.

<sup>308</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>309</sup> See World Bank, *Africa Region Human Development Working Paper Series, Better Health Outcomes from Limited Resources: Focusing on Priority Services in Malawi*, April 2002, at 41.

<sup>310</sup> Shortages of medicines and other needed supplies and equipment are realities in health facilities throughout Africa, including in Uganda, Ghana, Kenya, Nigeria, South Africa, and Zimbabwe. See World Markets Analysis, *Healthcare, Uganda – Medical Provisions*, <http://www.worldmarketsanalysis.com/servlet/cats?ID=11128&subSite=WMH&typeID=34&pageContent=crt>. Accessed Oct. 5, 2002 (password required) (noting shortages of drugs, equipment, and personnel in Ugandan hospitals); Phone conversation, Agnes Soucat, World Bank, Nov. 19, 2002 (lack of insulin in Ghanaian hospitals); World Markets Analysis, *Healthcare, Kenya – Medical Provisions*, <http://www.worldmarketsanalysis.com/>. Accessed Oct. 5, 2002 (password required) (“hospitals and other facilities still lack essential drugs and equipment to deliver this promise [of primary care for all]”); World Markets Analysis, *Healthcare, Nigeria – Medical Provisions*, <http://www.worldmarketsanalysis.com/servlet/cats?ID=11120&subSite=WMH&typeID=34&pageContent=crt>. Accessed Oct. 5, 2002 (password required) (“Patients also seek treatment from private doctors and dispensaries due to the shortage of essential drugs in public hospitals”); World Markets Analysis, *Healthcare, South Africa – Medical Provisions*, <http://www.worldmarketsanalysis.com/C:/servlet/cats?ID=11142=&subSite=WMH&typeID=34&pageContent=crt>. Accessed Oct. 5, 2002 (password required) (“Hospital services all over the country are being stretched to the limit by the HIV/AIDS crisis . . . This has caused a shortage of beds, drugs and has accounted for almost all hospital worker man-hours”; reporting that one hospital lacked blankets in winter); World Markets Analysis, *Healthcare, Zimbabwe – Medical Provisions*, <http://www.worldmarketsanalysis.com/>. Accessed Oct. 5, 2002 (password required) (“The government’s lack of foreign currency has led to a serious shortage of essential drugs - including quinine, morphine and all vaccines - in state hospitals over the past two years. . . . All kinds of basic equipment such as bandages, gloves, syringes, X-ray films, intravenous drips and blood supplies have also been in short supply, making surgery impossible in many cases”).

<sup>311</sup> See Tom de Castella, “Health Workers Struggle to Provide Care in Zimbabwe: Brain drain adds to woes of cash-strapped health-care system.” *Lancet* (July 5, 2003) 362: 46-47, at 47. Available at: <http://pdf.thelancet.com/pdfdownload?uid=llan.362.9377.news.2635.1&x=x.pdf>.

<sup>312</sup> PHR interviews, Uganda, Jan. 2004.

<sup>313</sup> See Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 58.

<sup>314</sup> See Amy Hagopian, “The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy,” at 59 (unpublished draft) (2003).

<sup>315</sup> See World Health Organization, Department of Blood Safety and Clinical Technology, *Blood Safety Clinical Technology Progress 2000-2001*, 2002, at 13. Available at: [http://www.who.int/bct/Main\\_areas\\_of\\_work/Resource\\_Centre/General\\_docs/BCT%20Progress%20Report.pdf](http://www.who.int/bct/Main_areas_of_work/Resource_Centre/General_docs/BCT%20Progress%20Report.pdf).

<sup>316</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 99. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.

<sup>317</sup> *Id.* at 100.

<sup>318</sup> *Id.*

<sup>319</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>320</sup> See G. Krause et al., “Performance of village pharmacies and patient compliance after implementation of an essential drug program in rural Burkina Faso.” *Health Policy & Planning* (1998) 13(2): 159-166, at 160. A 1995 study of eight village pharmacies in three rural districts in Burkina Faso revealed that this program is quite successful. The drugs prescribed to the patients were available 94.1% of the time, and most of those not available were not on the essential drug list. This figure would have been even higher if not for the fact that in one district, Tougan, the essential drug program had just begun, whereas the other districts had already had time to adjust to the new program. Drug availability was about three times lower in Tougan than in the three districts combined. See *id.* at 160-164.

<sup>321</sup> See Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 44-52.

<sup>322</sup> PHR interview, Eastern Cape, South Africa, April 21, 2004.

<sup>323</sup> Country Coordinating Mechanism Ethiopia, *The Global Fund Proposal to Reduce Malaria, HIV/AIDS and TB in Ethiopia*, July 2002, at 46. Available at: [http://www.theglobalfund.org/search/docs/2ETHH\\_234\\_0\\_full.doc](http://www.theglobalfund.org/search/docs/2ETHH_234_0_full.doc).

<sup>324</sup> See Birna Trap et al., “The impact of supervision on stock management and adherence to treatment guidelines: a randomized control trial.” *Health Policy & Planning* (2001) 16(3): 273-280.

<sup>325</sup> *Malawi Integrated National Response to HIV/AIDS and Malaria* (proposal submitted to the Global Fund to Fight AIDS, Tuberculosis and Malaria), Jan. 11, 2002, at 72. Malawi’s first round proposal to the Global Fund included a request for \$1,080,000 to purchase ambulances and \$249,100 to improve referral communications. See *Malawi Integrated National Response to HIV/AIDS and Malaria* (proposal submitted to the Global Fund to Fight AIDS, Tuberculosis and Malaria), Jan. 11, 2002, at 83-84.

<sup>326</sup> See E. Nordberg, S. Holmberg & S. Kiugu, “Exploring the interface between first and second level of care: referrals in rural Africa.” *Tropical Medicine & International Health* (Feb. 1996) 1(1): 107-108.

<sup>327</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 99-100. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.

<sup>328</sup> See World Health Organization, *The World Health Report 2004* (2004), at 61-62. Available at: <http://www.who.int/whr/2004/chapter4/en/index4.html>.

<sup>329</sup> See Pascale A. Allotey & Daniel Reidpath, “Information quality in a remote rural maternity unit in Ghana.” *Health Policy & Planning* (2000) 15(2): 170-176.

<sup>330</sup> Heiner Grosskurth et al., “Operational performance of an STD control programme in Mwanza Region, Tanzania.” *Sexually Transmitted Infections* (2000) 76: 426-436, at 430, 436.

<sup>331</sup> *Id.* at 430.

<sup>332</sup> Uta Lehmann & David Sanders, “Human Resource Development.” *In* Health Systems Trust, *South African Health Review 2002* (2003), at chap. 7. Available at: <http://www.hst.org.za/sahr/2002/chapter7.htm>. See also Birna Trap et al., “The impact of supervision on stock man-

agement and adherence to treatment guidelines: a randomized control trial.” *Health Policy & Planning* (2001) 16(3): 273-280, at 274. (reporting that that supervision can increase job satisfaction of health care workers).

<sup>333</sup> Uta Lehmann & David Sanders, “Human Resource Development.” *In Health Systems Trust, South African Health Review 2002* (2003), at chap. 7.

<sup>334</sup> *Id.*

<sup>335</sup> See World Health Organization, Department of Health Service Provision, *Human Resources & National Health Systems: Shaping the Agenda for Action: Final Report* (Dec. 2002), at 4. Available at: [http://www.who.int/hrh/documents/en/nhs\\_shaping\\_agenda.pdf](http://www.who.int/hrh/documents/en/nhs_shaping_agenda.pdf). See also Global Alliance on Vaccines and Immunizations, *The health service brain drain – what are the options for change?* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php). (stating that inadequate supervision can be a factor in having a demoralized health staff); David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html> (stating that poor supervision adds to health worker frustration).

<sup>336</sup> Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 30.

<sup>337</sup> PHR interview, Eastern Cape, South Africa, April 21, 2004.

<sup>338</sup> Xoli Mahlalela et al. (EQUITY Project), *Primary Health Care in the Eastern Cape Province, 1997-2000*, c. 2001, at 30-32.

<sup>339</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 89-90. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.

<sup>340</sup> See U. Lehmann et al., *Investigating the Roles and Functions of Clinic Supervisors in Three Districts in the Eastern Cape Province*, July 2001, at 6-7, 13-15. Available at: <http://196.36.153.56/doh/docs/reports/2001/clinicsuper.pdf>.

<sup>341</sup> See World Bank, *Better Health for Africa: Experiences and Lessons Learned* (1994), at 97. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>; Javier Martínez & Tim Martineau, *DFID Health Systems Resource Centre Issue Paper: Human Resources in the Health Sector: An International Perspective*, May 2002, at 15-16. Available at: [http://www.healthsystems.org/Text%20docs/Human\\_resources.doc](http://www.healthsystems.org/Text%20docs/Human_resources.doc).

<sup>342</sup> See Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf); See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 21. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>. See also World Health Organization, Regional Office for Africa, *Placing Health Workers at the Heart of Health Services Delivery in Africa: The People who Work for Our Health* (2002), at 5. Available at: [http://www.afro.who.int/hrd/hrd\\_pamphlet.pdf](http://www.afro.who.int/hrd/hrd_pamphlet.pdf) (“training of health professionals in African countries has developed along the same lines as in developed countries, which produce highly trained, expensive, elite, and hospital focused professionals”).

<sup>343</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and*

*brain drain* (2003), at 21. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.

<sup>344</sup> Guillermo A. Herrera (medical epidemiologist, Turkey), “Trained to Become Westernized,” March 6, 2002. Rapid response to Tikki Pang, Mary Ann Lansang & Andy Haines, “Brain drain and health professionals.” *BMJ* (2002) 324: 499-500. Available at: <http://bmj.journals.com/cgi/eletters/324/7336/499?ck=nck#20358>.

<sup>345</sup> See Vasant Narasimhan et al., “Responding to the global human resources crisis.” *Lancet* (2004) 363: 1469-72, at 1470; E-mail from Vasant Narasimhan, McKinsey and Co., May 30, 2004.

<sup>346</sup> See James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 13. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>347</sup> “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” *In Organisation for Economic Co-operation and Development, Trends in International Migration* (2003), at 133.

<sup>348</sup> See “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” *In Organisation for Economic Co-operation and Development, Trends in International Migration* (2003), at 132; Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 28. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.

<sup>349</sup> World Health Organization, Regional Office for Africa, *Placing Health Workers at the Heart of Health Services Delivery in Africa: The People who Work for Our Health* (2002), at 5. Available at: [http://www.afro.who.int/hrd/hrd\\_pamphlet.pdf](http://www.afro.who.int/hrd/hrd_pamphlet.pdf).

<sup>350</sup> “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” *In Organisation for Economic Co-operation and Development, Trends in International Migration* (2003), at 134.

<sup>351</sup> See Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdftdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).

<sup>352</sup> See World Health Organization, *Human Capacity-Building Plan for Scaling up AIDS Treatment* (c. 2003), at 5. Available at: [http://www.who.int/3by5/publications/documents/capacity\\_building/en/index1.html](http://www.who.int/3by5/publications/documents/capacity_building/en/index1.html). See also Office of the United States Global AIDS Coordinator, *The President's Emergency Plan for AIDS Relief, U.S. Five-Year Global HIV/AIDS Strategy*, at 38. Available at: <http://www.state.gov/documents/organization/29831.pdf>. (including “[c]urriculum development to incorporate management of HIV-related illness into the basic package” as one strategy to strengthen human resource capacity).

<sup>353</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 21. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>. See also USAID, Bureau for Africa, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003), at 7 (“Students in many African medical and nursing schools learn by rote, providing little opportunity to question and explore”).

<sup>354</sup> See Vasant Narasimhan et al., “Responding to the global human resources crisis.” *Lancet* (2004) 363: 1469-72, at 1470.

- <sup>355</sup> “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>.
- <sup>356</sup> Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).
- <sup>357</sup> *See id.*
- <sup>358</sup> Tikki Pang, Mary Ann Lansang & Andy Haines, “Brain drain and health professionals.” *BMJ* (March 2, 2002) 324: 499-500. Available at: <http://bmj.bmjournals.com/cgi/content/full/324/7336/499>.
- <sup>359</sup> *See* EQUINET Secretariat, *Health Personnel in Southern Africa, Annotated Bibliography Update 1 June 2003 Summary of information presented in EQUINET newsletters, May 2001 to June 2003* (June 1, 2003). Available at: <http://lists.kabissa.org/lists/archives/public/equinet-newsletter/mmsg00063.html>.
- <sup>360</sup> World Health Organization, African Region & World Bank, *Building Strategic Partnerships in Education and Health in Africa: Consultative Meeting on Improving Collaboration between Health Professionals, Governments and Other Stakeholders in Human Resources for Health Development, Addis Ababa, 29 January – 1 February 2002: Report on the Consultative Meeting* (April 2002), at 12. Available at: [http://www.afro.who.int/hrd/consultative\\_meeting\\_report.pdf](http://www.afro.who.int/hrd/consultative_meeting_report.pdf).
- <sup>361</sup> *See* Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>362</sup> *See* Vinod Scaria, “Open, Online, and Global: Benefits of Biomedical Journals Going Online and Open.” *Online Journal of Health and Allied Sciences* (2003) 4(1). Available at: <http://www.ojhas.org/issue8/2003-4-1.htm>.
- <sup>363</sup> SATELLIFE, *Information Resources*, <http://www.satellife.org/inforesources.php>. Accessed June 9, 2004.
- <sup>364</sup> *See* “The Brain Drain in Healthcare in Ghana: An Interview.” *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>.
- <sup>365</sup> E-mail from Dr. Delanyo Dovlo, Ghana, June 16, 2004.
- <sup>366</sup> *See* Amy Hagopian, “The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy,” at 68 (unpublished draft) (2003).
- <sup>367</sup> *Id.* at 57, 60.
- <sup>368</sup> *Id.* at 57.
- <sup>369</sup> *Id.* at 61.
- <sup>370</sup> *Id.* at 62.
- <sup>371</sup> *Id.* at 59.
- <sup>372</sup> “Approximately one third of the nursing workforce (in the US) is over 50 years of age and the average age of full time nursing staff is 49 years.” Marian Eure, “Nursing Shortage Serious for Seniors.” *Senior Health*, [http://seniorhealth.about.com/cs/prevention/a/nurse\\_shortage.htm](http://seniorhealth.about.com/cs/prevention/a/nurse_shortage.htm). Accessed May 2, 2004. A 2003 study of the nursing workforce in Canada found that 30% of nurses could retire by 2006. “Serious nursing shortage within years: report.” *CBC News*, July 30, 2003.
- <sup>373</sup> *See* Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 18. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>374</sup> *See* James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 78. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.
- <sup>375</sup> US Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis, *Projected Supply, Demand, and Shortage of Registered Nurses: 2000-2020* (July 2002), at appendix, table 1. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/rnproject/report.htm>.
- <sup>376</sup> Council of Graduate Medical Education, *Fourteenth Report of COGME: COGME Physician Workforce Policies: Recent Developments and Remaining Challenges in Meeting National Goals* (March 1999), at 8-9. Available at: <http://www.cogme.gov/14.pdf>.
- <sup>377</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 36. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.
- <sup>378</sup> “More Nursing Students Needed to Head Off Severe Shortage.” *CBC News*, June 20, 2002.
- <sup>379</sup> *See* Jay Greene, “United States, Canada, Moving to Train More Physicians.” *American Medical News*, April 16, 2001. Available at: <http://www.ama-assn.org/amednews/2001/04/16/prsb0416.htm>.
- <sup>380</sup> *See* World Health Organization, *International Consultation on Assessment of Trade in Health Services and GATS: Research and Monitoring Priorities*, Jan. 9-11, 2002, Geneva, Switzerland, at 11. Available at: <http://www.who.int/health-services-trade/Summary%20Report%20&%20Recommendations.doc>.
- <sup>381</sup> National Rural Health Association, *Rural Graduate Medical Education* (June 2003). Available at: <http://www.nrharural.org/pagefile/issuepapers/ipaper22.html>.
- <sup>382</sup> *See* Carolyn Busse, “Study shows foreign-trained doctors can ease rural physician shortages.” *University of North Carolina News Service*, Nov. 13, 1998. Available at: <http://www.unc.edu/news/newsserv/archives/nov98/busse11.htm>; Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).
- <sup>383</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 5, 10.
- <sup>384</sup> Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real losers?” *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).
- <sup>385</sup> Alberta Heritage Foundation for Medical Research, *The SEARCH for Rural Physicians* (2003). Available at: <http://www.ahfm.ab.ca/publications/newsletter/Spring03/spring.03/inside/search.feet.htm>
- <sup>386</sup> Gumisai Mutume, “New initiatives outlined to tap skills of African expatriates.” *Dawn* (Pakistan), Sept. 4, 2003. Available at: <http://www.dawn.com/2003/09/04/int16.htm>.
- <sup>387</sup> “Every effort should be made to ensure that more-developed countries train sufficient doctors to meet their projected human-resource needs, without reliance on graduates from other countries.” Peter E. Bundred & Cheryl Levitt, “Medical Migration - who are the real los-

ers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).

<sup>388</sup> "A strategy is needed to control the geographical distribution of doctors to ensure that medical care in underserved areas is properly provided for." Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf); Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 5, 10.

<sup>389</sup> See National Rural Health Association, *Health Professions: Title VII of the Public Health Service Act Reauthorization* (Jan. 2004), at 2. Available at: <http://www.nrharural.org/dc/policybriefs/HlthPrfsns.pdf>.

<sup>390</sup> Peter I. Buerhaus, Douglas O. Staiger & David I. Auerbach, "Is the Current Shortage of Hospital Nurses Ending?" *Health Affairs* (Nov./Dec. 2003) 22(6): 191-198, at 192.

<sup>391</sup> NHSC is part of the Health Resources and Services Administration, an agency of the US Department of Health and Human Services.

<sup>392</sup> US Department of Health and Human Services, Human Resources and Services Administration, National Health Service Corps, *Why We Are Here*, <http://nhsc.bhpr.hrsa.gov/about/why.cfm>. Accessed May 4, 2004.

<sup>393</sup> Office of Management and Budget, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2005 - Appendix*, at 423 (2004). Available at: <http://www.whitehouse.gov/omb/budget/fy2005/pdf/appendix/hhs.pdf>; Association of American Medical Colleges, *National Health Service Corps*, <http://www.aamc.org/advocacy/library/educfed0002.htm>. Accessed May 4, 2004.

<sup>394</sup> National Rural Health Association, *This Year Congress Must Reauthorize: The National Health Service Corps Program, the Consolidated Health Centers Program, the Rural Health Outreach & Network Development Grant Program* (c. 2001). Available at: <http://www.nrharural.org/dc/reauth.html>.

<sup>395</sup> *Id.*; Letter from the National Rural Health Association to President George W. Bush, January 12, 2004.

<sup>396</sup> Martha Frase-Blunt, "Funding Boost for National Health Service Corp." *Association of American Medical Colleges* (April 2002). Available at: <http://www.aamc.org/newsroom/reporter/apr02/nhscprogram.htm> (3,000 shortage areas); US Department of Health and Human Services, Human Resources and Services Administration, National Health Service Corps, *Why We Are Here*, <http://nhsc.bhpr.hrsa.gov/about/why.cfm>. Accessed May 4, 2004 (27,000 health professionals needed).

<sup>397</sup> Another, smaller, government program is the federally-funded Quentin N. Burdick Program for Rural Interdisciplinary Training. This program seeks to improve health care in rural areas, including through innovative training methods and "increase[ing] the recruitment and retention of health care practitioners from rural areas and make rural practice a more attractive career choice for health care practitioners." Health Professions Education Partnerships Act of 1998, Public Law No. 105-392 (1998), at sec. 754(b). This is about a \$6 million program. US Department of Health and Human Services, Human Resources and Services Administration, Bureau of Health Professionals, *Quentin N. Burdick Rural Program for Interdisciplinary Training*, <http://bhpr.hrsa.gov/interdisciplinary/rural.html>. Accessed May 4, 2004.

<sup>398</sup> See National Rural Health Association, *Rural Graduate Medical Education* (June 2003). Available at: <http://www.nrharural.org/pagefile/issuепapers/ipaper22.html>.

<sup>399</sup> Peter I. Buerhaus, Douglas O. Staiger & David I. Auerbach, "Is the Current Shortage of Hospital Nurses Ending?" *Health Affairs* (Nov./Dec. 2003) 22(6): 191-198, at 192.

<sup>400</sup> *Id.* at 193.

<sup>401</sup> *Id.*

<sup>402</sup> "Survey reveals poor conditions for nurses." *PersonnelToday.com* (March 21, 2002). Available at: <http://www.personneltoday.com/Article11764.htm>

<sup>403</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis, *Projected Supply, Demand, and Shortage of Registered Nurses: 2000-2020* (July 2002), at appendix, table 1. Available at: <http://bhpr.hrsa.gov/healthworkforce/reports/rnproject/report.htm>.

<sup>404</sup> Peter I. Buerhaus, Douglas O. Staiger & David I. Auerbach, "Is the Current Shortage of Hospital Nurses Ending?" *Health Affairs* (Nov./Dec. 2003): 22(6): 191-198, at 192.

<sup>405</sup> American Nurses Association press release, *American Nurses Association Hails Nurse Education Reauthorization*, Oct. 14, 1998. Available at: <http://www.nursingworld.org/pressrel/1998/neaoct14.htm>. The Nurses Education Act supports nursing education programs through various grant programs, including a Nurse Corps (formerly called Nurse Education Loan Repayment Program), which "repays 60 to 85 percent of nursing student loans in return for at least two years of practice in a facility designated to have a critical shortage of nurses." American Nurses Association, *Nurse Education Act Funding* (c. 2003). Available at <http://www.nursingworld.org/gova/federal/news/position.pdf>.

<sup>406</sup> Nurse Reinvestment Act, Public-Law 107-205 (2002).

<sup>407</sup> E-mail from Greg Lynskey, National Rural Health Association, June 10, 2004; Letter from the National Rural Health Association to President George W. Bush, January 12, 2004.

<sup>408</sup> Testimony of Dr. Elizabeth James Duke, Health Resources and Services Administration Administrator. *Fiscal 2005 Appropriations: Labor, Health and Human Services, Labor*. Labor, Health and Human Services, and Education Subcommittee of the House Appropriations Committee, March 24, 2004.

<sup>409</sup> Linda H. Aiken et al., "Trends in International Nurse Migration: The world's wealthy countries must be aware of how the 'pull' of nurses from developing countries affects global health." *Health Affairs* (May-June 2004) 29(3): 69-77, at 76. Available at: <http://content.healthaffairs.org/cgi/content/abstract/23/3/69>. In the 1990s, the United Kingdom reduced the number of nurses it trained, though has since begun to reverse this state of affairs. See *id.*

<sup>410</sup> James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 55. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>411</sup> *Id.* at 9.

<sup>412</sup> See, e.g., Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 12. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf> ("Active and aggressive health personnel recruitment has been a steadily growing influence on the movement and migration of health personnel").

<sup>413</sup> Barbara Stilwell et al., "Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges." *Human Resources for Health* (2003) 1(8), at 10. Available at:

<http://www.human-resources-health.com/content/pdf/1478-4491-1-8.pdf>. The dates represent one year periods that run from April 1 to March 31.

<sup>414</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf> (1 to 45 nurses from 1999 to 2001); "Don't send me to my death." *BBC News*, Aug. 7, 2003. Available at: <http://www.aegis.com/news/bbc/2003/BB030807.html> (75 nurses in 2001-2002).

<sup>415</sup> Some nurses may have entered the United Kingdom as refugees. Given travel costs and difficulty of obtaining a work permit, it is unlikely that many of these nurses are "walk-ins," having sought employment with an NHS employer without solicitation. E-mail from Professor James Buchan, May 6, 2004.

<sup>416</sup> "The Brain Drain in Healthcare in Ghana: An Interview." *U.N. Integrated Regional Information Networks (IRIN)*, Oct. 6, 2003. Available at: <http://www.cbcfhealth.org/content/contentID/2264>. Dr. Plange-Rhule continued, "Imagine getting offers from all kinds of agencies promising to pay overnight 20 times what you earn a month in Ghana for your qualifications. Definitely, no one will stay." *Id.*

<sup>417</sup> "South Africa Asks Canada to Stop Stealing Doctors Away." *CBC News*, Feb. 7, 2001. Available at: [http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr\\_docs010207](http://cbc.ca/cgi-bin/templates/view.cgi?news/2001/02/07/safr_docs010207).

<sup>418</sup> "Halting Africa's Health Brain Drain." *BBC News*, May 19, 2003. Available at: <http://news.bbc.co.uk/2/hi/africa/3040825.stm>.

<sup>419</sup> David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.

<sup>420</sup> See Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).

<sup>421</sup> Strafford Thomas, "Chemists leaving SA by the hundreds as US group dispenses big bucks." *Health Systems Trust*, October 24, 2003. Available at: <http://news.hst.org.za/view.php3?id=20031031>.

<sup>422</sup> Private communication, Paul J. Fitzpatrick, President & CEO, I-Medical Staffing, Inc., Jan. 9, 11, 2004. This is not to say all recruiters follow this approach. "Recruitment agencies are of different types . . . and also function in different ways." James Buchan, Tina Parkin & Julie Sochalski, *International Nurse Mobility: Trends and Policy Implications* (2003), at 71. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>.

<sup>423</sup> See Ian Couper & Paul Worley, "The Ethics of International Recruitment." *Rural and Remote Health: The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy*, c. Dec. 2002. Available at: <http://e-jrh.deakin.edu.au/editorial/showeditorial.asp?EditorialID=14>.

<sup>424</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 12. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.

<sup>425</sup> Private communication, Paul J. Fitzpatrick, President & CEO, I-Medical Staffing, Inc., Jan. 11, 2004.

<sup>426</sup> Barbara L. Brush, Julie Sochalski & Anne M. Berger, "Imported Care: Recruiting Foreign Nurses to U.S. Health Care Facilities."

*Health Affairs* (May-June 2004), 23(3): 78, 81.

<sup>427</sup> See James Buchan, *Here to Stay? International Nurses in the UK* (2003), at 16.

<sup>428</sup> See University of Washington, Center for Health Workforce Studies (Karin E. Johnson et al.), *Working Paper #76: How International Medical Graduates Enter US Graduate Medical Education or Employment* (Aug. 2003), at 7-9. About one-fourth of physicians in the United States have attended medical school outside the United States. Amy Hagopian, et al. *International Medical Graduates in the United States: A Review of the Literature 1995 to 2003: University of Washington Center for Health Workforce Studies: Working Paper #83* (Oct. 2003), at 5.

<sup>429</sup> See Barbara L. Brush, Julie Sochalski & Anne M. Berger, "Imported Care: Recruiting Foreign Nurses to U.S. Health Care Facilities." *Health Affairs* (May-June 2004), 23(3): 78, 82; All Nursing Schools, *Common Q & A*, <http://www.allnursingschools.com/faqs/foreign-nurse.php>. Accessed June 14, 2004.

<sup>430</sup> International Covenant on Civil and Political Rights, G.A. res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, *entered into force* Mar. 23, 1976, at art. 12(2).

<sup>431</sup> Adele Shevel, "Hospitals offer incentives in a bid to keep their staff." *Health Systems Trust*, June 2, 2003. Available at: <http://news.hst.org.za/view.php3?id=20030207>.

<sup>432</sup> See Phylcia Oppelt, "Treat the Cause, Not the Symptoms." *Sunday Times* (South Africa), Feb. 18, 2001. Available at: <http://www.sun-times.co.za/2001/02/18/insight/in11.htm>. See also Ian Couper & Paul Worley, "The Ethics of International Recruitment." *Rural and Remote Health: The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy*, c. Dec. 2002. Available at: <http://e-jrh.deakin.edu.au/editorial/showeditorial.asp?EditorialID=14> ("10 pages of the South African Medical Journal are consistently taken up with advertisements for overseas posts, mostly rural positions in Canada, Australia and New Zealand").

<sup>433</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>434</sup> The extensive recruitment of nurses from the Philippines is beginning to cause a domestic shortage of nurses. See Barbara L. Brush, Julie Sochalski & Anne M. Berger, "Imported Care: Recruiting Foreign Nurses to U.S. Health Care Facilities." *Health Affairs* (May-June 2004), 23(3): 78, 81.

<sup>435</sup> There is no guarantee that the arrangement to which a developing country agrees will in fact protect its people's health. For example, if a developing country agrees to recruitment in return for payment of training costs of the recruited health professionals, a strong case could be made that that country is not adequately protecting its people's health. As explained above, because of the health costs of the loss of the health personnel, merely funding training for another nurse of physician will leave the source country with a net loss. Absent a higher authority to scrutinize these agreements or some type of recognized framework for these agreements, including a greater understanding of what constitutes fair reimbursement, civil society participation in the developing country's agreement process may be the best check to ensure that the country does not sell itself short.

<sup>436</sup> See Organization for Economic Cooperation and Development, "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." *Trends in International Migration 2003* (2004), at 142 n. 34; Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: <http://www.medact.org/tbx/docs/Dovlo%20-%20brain%20drain%20and%20retention.pdf>.

<sup>437</sup> Proceedings of meeting on Equity in the Distribution of Health Personnel in South Africa organized by the Regional Network for Equity in Health in Southern Africa (EQUINET) and Health Systems Trust South Africa (HST), Pretoria, South Africa, April 15-17, 2004.

<sup>438</sup> E-mail from Dr. Delanyo Dovlo, Ghana, June 9, 2004.

<sup>439</sup> See Organization for Economic Cooperation and Development, "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." *Trends in International Migration 2003* (2004), at 134. The Group of 77 is a formal coalition of developing countries.

<sup>440</sup> See, e.g., Mark L. Scott, Anna Whelan, John Dewdney and Anthony B. Zwi, "Solving health workforce shortages with professionals from developing countries." *Medical Journal of Australia* (2004) 180(4):174-176. Available at: [http://www.mja.com.au/public/issues/180\\_04\\_160204/sco10883\\_fm.html#i1082975](http://www.mja.com.au/public/issues/180_04_160204/sco10883_fm.html#i1082975) (possible strategies include "Recognis[ing] differences between countries as potential sources of imports [eg, sub-Saharan African countries as compared with China, India and the Philippines]" and that "imposing blanket bans likely to be unenforceable and counterproductive").

<sup>441</sup> See United Kingdom Department of Health, *Developing Countries* Available at: <http://www.dh.gov.uk/asseRoot/04/03/46/79/04034679-.pdf>. Accessed June 21, 2004.

<sup>442</sup> See *Cent. Hudson Gas & Elec. Corp. v. Public Serv. Comm'n*, 447 U.S. 557, 566 (1980).

<sup>443</sup> Further, the United States has an international legal obligation to prevent third parties within its control from recruiting.

<sup>444</sup> Another issue that arises is whether Congress can regulate activities in a foreign country. It is well-settled that Congress can regulate activities abroad when those activities will have a substantial effect in the United States or when the activities are undertaken by US nationals. See *Restatement 3d of the Foreign Relations Law of the U.S.*, § 402 (1986). Both conditions hold in the case of recruitment of foreign health professionals by American corporations. While exceptions exist to when Congress can regulate such activities, these exceptions do not apply. See *Restatement 3d of the Foreign Relations Law of the U.S.*, § 403 (1986). The Global Agreement on Trade in Services (GATS), part of the World Trade Organization (WTO) regime, also raises legal issues that need to be considered. As of October 2000, the United States had not made any commitments under GATS with respect to health personnel. A list of sector-specific commitments for the United States does not include any commitments with respect to health personnel under the delineation of US commitments for professional services. See World Trade Organization, *WTO Services Database Pre-Defined Reports, USA* (2000), at 35. Available through <http://tsdb.wto.org/wto/Public.nsf/FSetPredefinedReport?OpenFrameSet>. Medical and dental service and services provided by nurses, midwives, and other health professionals are categorized under the "professional services" sector, not the "health related and social services" sector. See World Trade Organization, *Services: Sector by Sector: Health and Social Services*, [http://www.wto.org/english/tratop\\_e/serv\\_e/health\\_social\\_e/health\\_social\\_e.htm](http://www.wto.org/english/tratop_e/serv_e/health_social_e/health_social_e.htm). Accessed May 24, 2004. Some countries might have a commitment under GATS on trade in health personnel, and it may be that for these countries, adhering to that commitment would prevent the state from regulating movement of health personnel, and such inability to regulate this movement would harm its people's right to health. Because of states' obligations to promote human rights under the UN Charter, and the supremacy of the UN Charter in international law, in such situations states would be bound by their human rights obligations. See UN Charter, arts. 55, 56, 103. The UN General Assembly has recognized that "the promotion and protection of [human] rights and [fundamental] freedoms [is] the first responsibility of Governments." G.A. Res. 57/217, 57<sup>th</sup> Sess. (Dec.

18, 2002), U.N. Doc. A/Res/57/217. Nonetheless, to avoid unnecessary legal conflicts, neither high-income countries that might implement ethical recruitment policies nor low-income countries that face health worker shortages should include trade in health professionals, among their specific commitments to GATS.

<sup>445</sup> See Annie Willetts & Tim Martineau, *Ethical International Recruitment of Health Professionals: Will Codes of Practice Protect Developing Country Health Systems?* (Jan. 2004). Available at: <http://www.liv.ac.uk/lstm/research/documents/codesofpracticereport.pdf>.

<sup>446</sup> Ireland Department of Health and Children, Nursing Policy Division, *Guidance for Best Practice on the Recruitment of Overseas Nurses and Midwives* (Dec. 2001), at 13. Available at: <http://www.doh.ie/pdfdocs/bpronm.pdf>.

<sup>447</sup> *Id.* at 7.

<sup>448</sup> See Commonwealth Secretariat, *The Commonwealth Code of Practice for International Recruitment of Health Workers* (May 2002). Available at: [http://www.thecommonwealth.org/shared\\_asp\\_files-/uploadedfiles](http://www.thecommonwealth.org/shared_asp_files-/uploadedfiles). The Commonwealth Code "is intended to discourage the targeted recruitment of health workers from countries which are themselves experiencing shortages." *Id.* at para. 8. The code rather timidly suggests, "Governments recruiting from other Commonwealth countries should/[may wish to] consider how to reciprocate for the advantages gained by doing so." *Id.* at para. 21.

<sup>449</sup> See United Kingdom Department of Health, *Agencies Adhering to the Code of Practice on International Recruitment*, [http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/MoreStaff/InternationalRecruitmentNHSEmployers/MedicalRecruitmentArticle/fs/en?CONTENT\\_ID=4032055&chk=PeyEmL](http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/MoreStaff/InternationalRecruitmentNHSEmployers/MedicalRecruitmentArticle/fs/en?CONTENT_ID=4032055&chk=PeyEmL). Accessed May 7, 2004.

<sup>450</sup> United Kingdom Department of Health, *Code of Practice for NHS employers involved in the international recruitment of healthcare professionals* (2001), at 4. Available at: <http://www.dh.gov.uk/asset-root/04/03/46/51/04034651.pdf>. Similarly, "NHS organisations are strongly advised" – but not required – "to consult the list of approved agencies when considering international recruitment." United Kingdom Department of Health, *International Recruitment Code of Practice for NHS Employers*, [http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/MoreStaff/InternationalRecruitmentNHSEmployers/CodeOfPracticeArticle/fs/en?CONTENT\\_ID=4043625&chk=D2OJCV](http://www.dh.gov.uk/PolicyAndGuidance/HumanResourcesAndTraining/MoreStaff/InternationalRecruitmentNHSEmployers/CodeOfPracticeArticle/fs/en?CONTENT_ID=4043625&chk=D2OJCV). Accessed May 7, 2004. The Department of Health does take the code quite seriously. According to a representative of the Department of Health, "We have made it absolutely clear that agencies that recruit nurses for the private sector contrary to the NHS code of conduct will not be allowed to recruit nurses for the national health service." DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 17. Available at: [http://www.dfidhealthrc.org/shared/publications/reports/int\\_rec/int-rec-main.pdf](http://www.dfidhealthrc.org/shared/publications/reports/int_rec/int-rec-main.pdf).

<sup>451</sup> See DFID Health Systems Resource Centre (James Buchan & Delanyo Dovlo), *International Recruitment of Health Workers to the UK: A Report for DFID* (Feb. 2004), at 15. Available at: [http://www.dfidhealthrc.org/shared/publications/reports/int\\_rec/int-rec-main.pdf](http://www.dfidhealthrc.org/shared/publications/reports/int_rec/int-rec-main.pdf).

<sup>452</sup> *Id.* at 8.

<sup>453</sup> *Id.* at 12.

<sup>454</sup> *Id.* at 17.

<sup>455</sup> See James Buchan, *Here to stay? International nurses in the UK* (2003), at 26-27. Available at: <http://www.rcn.org.uk/publications/pdf/heretostay-irns.pdf>. Some months before the list of developing countries was published, "one MP [asserted] that [the] aspect of the Code [on recruiting from developing countries] is a 'sham' with only 30 out

of 92 recruitment agencies reportedly complying with the Code, [and] with no formal mechanism in place for the Department [of Health] to check on compliance.” *Id.* at 26. This is not to imply that 62 agencies were breaching the Code, but rather that 62 were not reporting compliance, even though they might in fact have been complying. E-mail from Professor James Buchan, May 8, 2004.

<sup>456</sup> United Kingdom Department of Health, “12. Ghana – international recruitment to cease.” *Chief Nursing Officer Bulletin* (Oct. 2002). Available at: <http://www.publications.doh.gov.uk/cno/bulletin14.htm#12>.

<sup>457</sup> See James Buchan, *Here to stay? International nurses in the UK* (2003), at 27. Available at: <http://www.rcn.org.uk/publications/pdf/heretostay-irns.pdf>.

<sup>458</sup> The Royal College of Nursing in the United Kingdom may ask that the NHS record the number and source countries of its recruits, which would greatly ease monitoring compliance with the UK code. E-mail from Professor James Buchan, May 6, 2004.

<sup>459</sup> See “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 139.

<sup>460</sup> This is not to say national efforts will be fruitless absent an international standard. For example, the nurse who hopes to migrate to the United Kingdom might be either unwilling or unable to migrate to the United States. And recruiters from other countries might not fully fill the void created when those from one country cease operating in, for example, South Africa.

<sup>461</sup> See “The international mobility of health professionals: An evaluation and analysis based on the case of South Africa.” In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 139.

<sup>462</sup> World Health Organization, 57<sup>th</sup> World Health Assembly (May 22, 2004), Res. WHA 57.19, International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries, at para. 2(5). Available at: [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R19-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf).

<sup>463</sup> *Id.* at para. 2(3).

<sup>464</sup> See University of Washington, Center for Health Workforce Studies (Karin E. Johnson et al.), *Working Paper #76: How International Medical Graduates Enter US Graduate Medical Education or Employment* (Aug. 2003), at 10.

<sup>465</sup> See Dartmouth College International Office, *Two-Year Home Residency*, <http://www.dartmouth.edu/~intl/j1/residency.html>. Last modified Sept. 23, 2001.

<sup>466</sup> See University of Washington, Center for Health Workforce Studies (Karin E. Johnson et al.), *Working Paper #76: How International Medical Graduates Enter US Graduate Medical Education or Employment* (Aug. 2003), at 12-13.

<sup>467</sup> See Ian Couper & Paul Worley, “The Ethics of International Recruitment.” *Rural and Remote Health: The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy*, c. Dec. 2002. Available at: <http://e-jrh.deakin.edu.au/editorial/showeditorial.asp?EditorialID=14>; Center for Rural Health (North Dakota), *Rural Health Workforce: North Dakota Conrad State 20 J-1 Waiver Program*, <http://www.med.und.nodak.edu/depts/rural/rhw/j1.html>. Accessed Dec. 4, 2002; Missouri Department of Health and Senior Services, *J-1 Visa/State 20 Program*, <http://www.dhss.state.mo.us/CommunityHealthInitiatives/HSDUj1visastate20.html>. Accessed Dec. 4, 2002.

<sup>468</sup> See Law Offices of Carl Shusterman, *USDA Cancels J Waiver Pro-*

*gram for IMGs*, <http://www.shusterman.com/usda-img302.html>. Accessed Dec. 20, 2002 (reporting that the USDA alone has sponsored more than 3,000 primary care physicians to work in rural areas in America over the past eight years); U.S. Department of Agriculture press release, *USDA Participation in J-1 Visa Program*, <http://www.shusterman.com/usda-img302.html>. Last updated April 16, 2002.

<sup>469</sup> File from Dr. Amy Hagopian, Associate Director of Regional and Rural Education, Research and Support Services, Rural Health Research Center and Center for Health Workforce Studies, University of Washington.

<sup>470</sup> Amy Hagopian et al., “Health Departments’ Use of International Medical Graduates in Physician Shortage Areas: A Report on the Implementation of the Conrad 20 Program of J-1 Visa Waivers for Physicians in Underserved Areas.” *Health Affairs* (Sept./Oct. 2003) 22(5):241-249, at 243.

<sup>471</sup> See Rural Assistance Center, *J-1 Visa Waiver*, [http://www.raconline.org/info\\_guides/hc\\_providers/j1visa.php](http://www.raconline.org/info_guides/hc_providers/j1visa.php). Accessed May 9, 2004. US government agencies may also hire J-1 visa waiver physicians. See *id.*

<sup>472</sup> While expressed in terms of agreements rather than visas, Tim Martineau and colleagues view a similar approach to be “worthy of consideration.” They raise the possibility of bilateral agreements that enable time-limited migration of health professionals, who would be guaranteed that when their time abroad is finished, they would have employment available back home. The agreements should ensure that these temporary migrants gain skills relevant to their own countries. See Tim Martineau, Peter Bundred & Karola Decker, “‘Brain drain’ of health professionals: from rhetoric to responsible action.” *Health Policy* (2004) *In press*.

<sup>473</sup> See Adele Shevel, *Hospitals offer incentives in a bid to keep their staff*, Health Systems Trust, Feb. 6, 2003. Available at: <http://news.hst.org.za/view.php3?id=20030207>.

<sup>474</sup> See Karen Allen, “Concern Grows at Poaching of Doctors.” *BBC News*, Oct. 7, 2003. Available at: <http://news.bbc.co.uk/2/hi/health/3135512.stm>.

<sup>475</sup> See US Department of State, Bureau of Counselor Affairs, Visa Services, *Instructions for the 2005 Diversity Immigrant Visa Program (DV-2005)*, <http://travel.state.gov/dv2005.html>. Accessed May 9, 2004.

<sup>476</sup> See *Testing Regions and International Test Delivery Surcharges for USMLE Step 1 and Step 2 CK*, <http://www.ecfm.org/usmle/centers.html>. Accessed May 8, 2004.

<sup>477</sup> See Barbara L. Brush, Julie Sochalski & Anne M. Berger, “Imported Care: Recruiting Foreign Nurses to U.S. Health Care Facilities.” *Health Affairs* (May/June 2003) 23(3): 78-87, at 82; Linda H. Aiken et al., “The world’s wealthy countries must be aware of how the ‘pull’ of nurses from developing countries affects global health.” *Health Affairs* (May/June 2004) 23 (2): 69-77, at 72. Available at: <http://content.healthaffairs.org/cgi/content/full/23/3/69>.

<sup>478</sup> See Commission on Graduates of Foreign Nursing Schools, *Exam Dates and Locations*, <http://www.cgfn.org/cgfn/programs/exam-dates.html>. Accessed June 11, 2004.

<sup>479</sup> See National Council of State Boards of Nursing, *Frequently Asked Questions about International NCLEX Administration* (2003), at 2-3. Available at: <http://www.ncsbn.org/pdfs/2NCLEXInternational-NCLEXAdm.FAQ.V.1.pdf>.

<sup>480</sup> E-mail from Barbara L. Brush, Associate Professor, University of Michigan School of Nursing, June 10, 2004.

<sup>481</sup> See Karin E. Johnson et al., *How International Medical Graduates*

Enter US Graduate Medical Education or Employment: University of Washington Center for Health Workforce Studies Working Paper #76 (Aug. 2003), at 8.

<sup>482</sup> World Health Organization, 57<sup>th</sup> World Health Assembly (May 22, 2004), Res. WHA 57.19, International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries. Available at: [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R19-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf).

<sup>483</sup> See Paul Udoto, "Poor Countries to Be Paid for Brain Drain." *Nation* (Kenya), May 28, 2004.

<sup>484</sup> See, e.g., Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_and\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_and_review.1181.1&x=x.pdf).

<sup>485</sup> See Karen Allen, "Concern grows at poaching of doctors." *BBC News*, Oct. 7, 2003. Available at: <http://news.bbc.co.uk/2/hi/health/3135512.stm>.

<sup>486</sup> See Barbara Stilwell et al., "Developing evidence-based ethical policies on the migration of health workers: conceptual and practical challenges." *Human Resources for Health* (2003) 1(8), at 12. Available at: <http://www.human-resources-health.com/content/pdf/1478-4491-1-8.pdf>. A study on the cost of migration, which would likely inform the correct level of reimbursement, is currently underway. See *id.*

<sup>487</sup> See Phyllida Brown, "The health service brain drain — what are the options for change?" *Immunization Focus* (Oct. 2003). Available at: [http://www.vaccinealliance.org/home/Resources\\_Documents/Immunization\\_Focus/Download/102003\\_briefing.php](http://www.vaccinealliance.org/home/Resources_Documents/Immunization_Focus/Download/102003_briefing.php) (lost tax revenue)

<sup>488</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>489</sup> The impact of reimbursement would likely extend beyond a transfer of wealth. If high-income countries were to respect their obligations to provide reimbursement, then the fact of reimbursement would likely encourage high-income countries to improve their own health human resources planning, to lessen their need for foreign health professionals, and hence their reimbursement obligations. See William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 21. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt>.

<sup>490</sup> This assumes that the employers benefit from their ability to hire health professionals from abroad because they are less costly than native health professionals, or the other option would be to increase their employees' benefits and improve their working conditions to attract more native health professionals. Some of the tax burden would likely be passed on to health care consumers, the patients who also benefit from the presence of these additional health professionals.

<sup>491</sup> See USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 21. Available at: <http://www.aed.org/publications/HealthSector.pdf> ("A reflection of the inadequate attention given to HR issues is the poor state of personnel information systems, including availability and easy retrieval of such data as the total number of employed staff by category, grade, and location. In most sub-Saharan African countries, these pieces of information are extremely difficult to obtain. The government payroll is a possible source, but it often does not distinguish the categories of staff (they are often employed on grades that are inclusive of several different professions), and it may not be cleaned of ghost workers").

<sup>492</sup> See Roger Dobson, "WHO to create international human resources database on health care." *BMJ* (May 10, 2003) 326:1004. Available at: <http://bmj.bmjournals.com/cgi/content/full/326/7397/1004/a> (according to officials at WHO's department of health service provision, "In many countries there is no regular recording of the numbers and activ-

ities of all health personnel, and some emphasize only the public sector or can have variable accuracy for rural areas").

<sup>493</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 21. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.

<sup>494</sup> See World Health Organization, Department of Health Service Provision, *Human Resources & National Health Systems: Shaping the Agenda for Action: Final Report* (Dec. 2002), at 4. Available at: [http://www.who.int/hrh/documents/en/nhs\\_shaping\\_agenda.pdf](http://www.who.int/hrh/documents/en/nhs_shaping_agenda.pdf) ("Before introducing any new programme into a country, a human resources assessment is required, which should include information on numbers, types and location of health workers and ease of access to a training facility. A systems assessment should accompany this stage to review the environment for change – the needs for equipment, drugs and strengthened infrastructure.")

<sup>495</sup> PHR interview, Eastern Cape, South Africa, April 22, 2004.

<sup>496</sup> In Malawi, a national planning exercise revealed the consequences of stopping training enrolled nurses and medical assistants. Within a year, training for enrolled nurses had been reinstated. See USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 26. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>497</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 10-11, 35. Available at: <http://www.equinet africa.org/bibl/docs/hivpersonnel.pdf>.

<sup>498</sup> See "IOM asked to stem brain drain." *Times of Zambia*, Feb. 18, 2004. Available at: <http://www.queensu.ca/samp/news.htm#Zambia>.

<sup>499</sup> See Roger Dobson, "WHO to create international human resources database on health care." *BMJ* (May 10, 2003) 326:1004. Available at: <http://bmj.bmjournals.com/cgi/content/full/326/7397/1004/a>. In 2004, the World Health Assembly requested that the Director-General, cooperating with relevant partners, "establish and maintain . . . information systems which will enable the appropriate international bodies to monitor independently the movement of human resources for health." World Health Organization, 57<sup>th</sup> World Health Assembly (May 22, 2004), Res. WHA 57.19, International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries, at para. 2(1). Available at: [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R19-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf).

<sup>500</sup> World Health Organization Regional Office for Africa, *Human Resources for Health Systems Development*. Last updated July 17, 2001. Available at: [http://www.afro.who.int/hrd/regional\\_strategy.html](http://www.afro.who.int/hrd/regional_strategy.html).

<sup>501</sup> See USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 25. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>502</sup> World Health Organization, *Human capacity-building plan for scaling up HIV/AIDS treatment* (2003), at 8. Available at: [http://www.who.int/3by5/publications/documents/en/doc\\_capacity\\_building.pdf](http://www.who.int/3by5/publications/documents/en/doc_capacity_building.pdf)

<sup>503</sup> See James Buchan, Tina Parkin & Julie Sochalski, International Nurse Mobility: Trends and Policy Implications (2003), at 56. Available at: <http://www.rcn.org.uk/downloads/InternationalNurseMobility-April162003.doc>; World Health Organization press release, *TB workforce crisis a major obstacle to treatment success*, Oct. 10, 2003. Available at:

<http://www.who.int/mediacentre/releases/2003/pr74/en/>. See also Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 5. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf).

<sup>504</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 18. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>505</sup> World Health Organization, African Region & World Bank, *Building Strategic Partnerships in Education and Health in Africa: Consultative Meeting on Improving Collaboration between Health Professionals, Governments and Other Stakeholders in Human Resources for Health Development, Addis Ababa, 29 January – 1 February 2002: Report on the Consultative Meeting* (April 2002), at 7. Available at: [http://www.afro.who.int/hrd/consultative\\_meeting\\_report.pdf](http://www.afro.who.int/hrd/consultative_meeting_report.pdf).

<sup>506</sup> See World Health Organization, Regional Office for Africa, *Placing Health Workers at the Heart of Health Services Delivery in Africa: The People who Work for Our Health* (2002), at 5. Available at: [http://www.afro.who.int/hrd/hrd\\_pamphlet.pdf](http://www.afro.who.int/hrd/hrd_pamphlet.pdf).

<sup>507</sup> Without external assistance, if human resource management capacity is inadequate, the policies are unlikely to be well-designed.

<sup>508</sup> World Health Organization, Department of Health Service Provision, *Human Resources & National Health Systems: Shaping the Agenda for Action: Final Report* (Dec. 2002), at 8. Available at: [http://www.who.int/hrh/documents/en/nhs\\_shaping\\_agenda.pdf](http://www.who.int/hrh/documents/en/nhs_shaping_agenda.pdf).

<sup>509</sup> See Office of Sustainable Development, Africa Bureau, US Agency for International Development, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003), at 2; Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 12. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>510</sup> Office of Sustainable Development, Africa Bureau, US Agency for International Development, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003), at 1.

<sup>511</sup> E-mail from Dr. Una Reid, human resource development consultant, June 1, 2004.

<sup>512</sup> See Barbara McPake et al., “Informal economic activities of public health workers in Uganda: implications for quality and accessibility of care.” *Social Science & Medicine* (1999) 49: 849-865, at 864; USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 32-34. Available at: <http://www.aed.org/publications/HealthSector.pdf>; Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 25, 34. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>513</sup> Medical and dental service and services provided by nurses, midwives, and other health professionals are categorized under the “professional services” sector, not the “health related and social services” sector. See World Trade Organization, *Services: Sector by Sector: Health and Social Services*, [http://www.wto.org/english/tratop\\_e/serv\\_e/health\\_social\\_e/health\\_social\\_e.htm](http://www.wto.org/english/tratop_e/serv_e/health_social_e/health_social_e.htm). Accessed May 24, 2004; World Trade Organization, *Services Sectoral Classification List* (July 10, 1991). Available at: [http://www.wto.org/english/tratop\\_e/serv\\_e/mtn\\_gns\\_w\\_120\\_e.doc](http://www.wto.org/english/tratop_e/serv_e/mtn_gns_w_120_e.doc).

<sup>514</sup> Tim Martineau, Peter Bundred & Karola Decker, “Brain drain’ of

health professionals: from rhetoric to responsible action.” *Health Policy* (2004) *In press*.

<sup>515</sup> World Health Organization, 57<sup>th</sup> World Health Assembly (May 22, 2004), Res. WHA 57.19, International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries, at para. 2(2). Available at: [http://www.who.int/gb/ebwha/pdf\\_files/WHA57/A57\\_R19-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf). In January 2002, WHO conducted a consultation with a variety of stakeholders to set research and monitoring priorities for trade in health-related services under GATS. See World Health Organization, International Consultation on Assessment of Trade in Health Services and GATS: Research and Monitoring Priorities, Jan. 9-11, 2002, Geneva, Switzerland (March 8, 2002). Available at: <http://www.who.int/health-services-trade/Summary%20Report%20&%20Recommendations.doc>.

<sup>516</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 11. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>517</sup> UNAIDS is promoting a coordination framework known as The Three Ones, principles to coordinate national AIDS responses. The three ones are one HIV/AIDS Action Framework that is the basis for the work of all partners, one National AIDS Coordinating Authority, and one country-level monitoring and evaluation system. See UNAIDS, *The Three Ones: Principles for the coordination of national AIDS responses*, <http://www.unaids.org/en/about+unaids/what+is+unaids/unaidst+at+country+level/the+three+ones.asp>. Accessed May 20, 2004.

<sup>518</sup> See Vasant Narasimhan et al., “Responding to the global human resources crisis.” *Lancet* (2004) 363: 1469-72, at 1470.

<sup>519</sup> See Tom de Castella, “Health Workers Struggle to Provide Care in Zimbabwe: Brain drain adds to woes of cash-strapped health-care system.” *Lancet* (July 5, 2003) 362: 46-47, at 47. Available at: <http://pdf.thelancet.com/pdfdownload?uid=llan.362.9377.news.2635.5.1&x=x.pdf>.

<sup>520</sup> Private communication, Robert Molebatsi, University of Botswana, April 15, 2004.

<sup>521</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 28-29. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>522</sup> See, e.g., USAID, Bureau for Africa, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003), at 7 (“A survey of nursing education in Africa revealed that subjects are often taught by non-specialists, and the number of nursing tutors is rapidly declining due to poor working conditions”).

<sup>523</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 20. Available at: <http://www.equinafrica.org/bibl/docs/healthpersonnel.pdf>; Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 19. Available at: <http://www.equinafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>524</sup> See Ethelda Chikumbo (pharmacist, West End Pharmacy), *Brain drain of pharmacists (cont’d)* (Oct. 21, 2003). Available at: <http://www.essentialdrugs.org/edrug/archive/200310/msg00077.php>. Retention of health professionals in Zimbabwe has reportedly only become a significant problem with the dramatic downturn in Zim-

babwe's economic and political situation several years ago. E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>525</sup> Andrew Meldrum, "The International Health Service: Mugabe says we are being stolen. All we want is better pay: The brain drain has badly hit Zimbabwe's fragile health service." *Observer* (United Kingdom), Aug. 10, 2003, at 13. Available at: [http://www.zimbabwesituation.com/aug12a\\_2003.html#link7](http://www.zimbabwesituation.com/aug12a_2003.html#link7).

<sup>526</sup> See Tom de Castella, "Health Workers Struggle to Provide Care in Zimbabwe: Brain drain adds to woes of cash-strapped health-care system." *Lancet* (July 5, 2003) 362: 46-47, at 47. Available at: <http://pdf.thelancet.com/pdftdownload?uid=llan.362.9377.news.26355.1&cx=x.pdf>.

<sup>527</sup> E-mail from Godfrey Woelk, Associate Professor in Epidemiology, Chair of Department of Community Medicine, University of Zimbabwe, June 15, 2004.

<sup>528</sup> WHO's 3 by 5 plan lists "external recruitment for key posts such as training tutors" as one short-term measure for increasing the workforce. World Health Organization, *Human capacity-building plan for scaling up HIV/AIDS treatment* (c. Dec. 2003), at 8. Available at: [http://www.who.int/3by5/publications/documents/capacity\\_building/en/index2.html](http://www.who.int/3by5/publications/documents/capacity_building/en/index2.html).

<sup>529</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 31. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>; Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 28. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>530</sup> See David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.

<sup>531</sup> See World Health Organization, Regional Office for Africa, *Placing Health Workers at the Heart of Health Services Delivery in Africa: The People who Work for Our Health* (2002), at 6. Available at: [http://www.afro.who.int/hrd/hrd\\_pamphlet.pdf](http://www.afro.who.int/hrd/hrd_pamphlet.pdf).

<sup>532</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 31. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>533</sup> Amy Hagopian et al., *The Migration of Physicians from Sub-Saharan Africa to the United States: Measures of the Brain Drain* (Nov. 2003) (unpublished), at 7.

<sup>534</sup> Along with the 67% of doctors and specialists trained in South Africa, another 18% are trained in Europe, 8% are training in other African countries, and 7% are trained elsewhere. See Namibia Ministry of Health and Social Services, *Health in Namibia: Progress and Challenges*, 2001, at 7. Available at: <http://www.healthnet.org.na/grn-mhss/docs/HINNAM1.pdf>.

<sup>535</sup> See Anil Soni, *Human Capital in Africa's Healthcare Sector* (Nov. 4, 2001), at 5.

<sup>536</sup> SADC's members are Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. See Southern African Development Community, <http://www.sadc.int>. Accessed May 17, 2004.

<sup>537</sup> See Study South Africa, *Medical University of Southern Africa*,

<http://www.studysa.co.za/uni/meduni.html>. Accessed Dec. 19, 2002.

<sup>538</sup> See World Health Organization, *The World Health Report 2004* (2004), at 64. Available at: <http://www.who.int/whr/2004/chapter4/en/index7.html>; USAID, Bureau for Africa, *HIV/AIDS and the Workforce Crisis in Health in Africa: Issues for Discussion* (July 21, 2003), at 7.

<sup>539</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 19. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>. In the long-term, investing in primary education, especially primary education science programs, should help alleviate the health professional shortage by increasing the number of students who are able to attend secondary school (who might then go on to college in medicine, nursing, or an allied profession), and by increasing the number of students attending secondary school who have some background and interest in science (and so may be more likely to benefit from scientific training in secondary school).

<sup>540</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 28. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>541</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 23. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>542</sup> See US Agency for International Development, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (2003), at 17. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>543</sup> See "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 134.

<sup>544</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 13. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>545</sup> See World Health Organization, *Human capacity-building plan for scaling up HIV/AIDS treatment* (c. Dec. 2003), at 8. Available at: [http://www.who.int/3by5/publications/documents/capacity\\_building/en/index2.html](http://www.who.int/3by5/publications/documents/capacity_building/en/index2.html).

<sup>546</sup> Jong-wook Lee, "Global health improvement and WHO: shaping the future." *Lancet* (2003) 362: 2083-88. Available at: [http://www.who.int/whr/2003/media\\_centre/lee\\_article/en/index4.html](http://www.who.int/whr/2003/media_centre/lee_article/en/index4.html)

<sup>547</sup> See World Health Organization, Department of Health Service Provision, *Human Resources & National Health Systems: Shaping the Agenda for Action: Final Report* (Dec. 2002), at 7. Available at: [http://www.who.int/hrh/documents/en/nhs\\_shaping\\_agenda.pdf](http://www.who.int/hrh/documents/en/nhs_shaping_agenda.pdf).

<sup>548</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 21. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>549</sup> *Id.*

<sup>550</sup> See Tom de Castella, "Health Workers Struggle to Provide Care in Zimbabwe: Brain drain adds to woes of cash-strapped health-care system." *Lancet* (July 5, 2003) 362: 46-47, at 47. Available at:

<http://pdf.thelancet.com/pdfdownload?uid=llan.362.9377.news.2635.1&x=x.pdf>.

<sup>551</sup> Tikki Pang, Mary Ann Lansang & Andy Haines, "Brain drain and health professionals." *BMJ* (March 2, 2002) 324: 499-500. Available at: <http://bmj.bmjournals.com/cgi/content/full/324/7336/499>.

<sup>552</sup> See Eva Ombaka (Ecumenical Pharmaceutical Network, Kenya), e-drug listserv posting, Nov. 5, 2003.

<sup>553</sup> See Anil Soni, *Human Capital in Africa's Healthcare Sector*, Nov. 4, 2001, at 3.

<sup>554</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>555</sup> Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 72 (unpublished draft). See also Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf) ("A variety of locally designed health professionals can be found in Africa. . . . Generally the 'Traditional' health professions have been very reluctant to accept these 'substitutes'").

<sup>556</sup> See Julian Meldrum, *Professional Roles and ARV Provision* (Sept. 2003). Available at: <http://new.hst.org.za/news/index.php/20030914/>.

<sup>557</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 28-29. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>. Nurses' right to prescribe in Zambia came despite physician opposition. E-mail from Judith A. Oulton, Chief Executive Officer, International Council of Nurses, June 7, 2004.

<sup>558</sup> See Health Systems Trust (Andy Gray and Susan Strasser), *ISDS Position Paper: Prescribing and Dispensing by Nurses in District-Level Health Facilities* (Feb. 1999). Available at: [http://www.hst.org.za/isds/pd\\_nurse.htm](http://www.hst.org.za/isds/pd_nurse.htm)

<sup>559</sup> Proceedings of meeting on Equity in the Distribution of Health Personnel in South Africa organized by the Regional Network for Equity in Health in Southern Africa (EQUINET) and Health Systems Trust South Africa (HST), Pretoria, South Africa, April 15-17, 2004.

<sup>560</sup> See World Health Organization, *Mobilizing Communities to Achieve 3 by 5* (2003). Available at: <http://www.who.int/3by5/publications/briefs/communities/en/>.

<sup>561</sup> BASICS II (Karabi Bhattacharyya et al.), *Community Health Worker Incentives and Disincentives: How They Affect Motivation, Retention, and Sustainability* (Oct. 2001), at 4. Available at: <http://www.aed.org/publications/CommunityHealthWorkers.pdf>.

<sup>562</sup> BASICS II, the MOST Project & US Agency for International Development, *Nepal Child Survival Case Study: Technical Report* (2004), at 11-13. Available at: <http://www.basics.org/publications/pubs/nepalcasestudy/Reports/TechReport.pdf>. See generally Lynn Freedman et al., *Millennium Project Task Force 4: Child Health and Maternal Health: Interim Report* (April 2004), at 20. Available at: <http://www.unmillenniumproject.org/documents/tf4interim.pdf> (community health workers in Bangladesh); Irwin Friedman, "Community Based Health Workers." *In Health Systems Trust, 2002 South African Health Review* (2003), at 161-180. Available at: <http://www.hst.org.za/sahr/2002/chapter9.htm>.

<sup>563</sup> See Paul Farmer et al., "Community-Based Approaches to HIV Treatment in Resource-Poor Settings." *Lancet* (Aug. 4, 2001) 358: 404-409, at 405.

<sup>564</sup> See BASICS II (Karabi Bhattacharyya et al.), *Community Health*

*Worker Incentives and Disincentives: How They Affect Motivation, Retention, and Sustainability* (Oct. 2001), at 15, 17-18. Available at: <http://www.aed.org/publications/CommunityHealthWorkers.pdf>.

<sup>565</sup> Community AIDS Response (CARE) training workshop, Johannesburg, South Africa, April 20, 2004; Bristol-Myers Squibb Co. & Bristol-Myers Squibb Foundation, *Secure the Future, Case Studies* (volume 1) (2004) at 31.

<sup>566</sup> World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 96. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf> ("AIDS prevention programs are increasingly drawing on the help of traditional healers.").

<sup>567</sup> See Roman Rollnick, "Botswana's high-stakes assault on AIDS." *Africa Recovery* (Sept. 2002) 16(2-3): 4. Available at: <http://www.un.org/ecosocdev/geninfo/afrec/vol16no2/162aids2.htm>.

<sup>568</sup> See World Markets Analysis, *Healthcare, Kenya – Medical Provisions*, <http://www.worldmarketsanalysis.com/>. Accessed Oct. 5, 2002 (password required).

<sup>569</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." *In Organisation for Economic Co-operation and Development, Trends in International Migration* (2003), at 134-135.

<sup>570</sup> See World Markets Analysis, *Healthcare, Zimbabwe – Medical Provisions*, <http://www.worldmarketsanalysis.com/>. Accessed Oct. 5, 2002 (password required); "Zimbabwe." *In Central Intelligence Agency, CIA World Factbook 1998*, 1998. Available at: <http://www.umsl.edu/services/govdocs/wofact98/269.htm>; Wilson Johwa, "Health – Zimbabwe: Waiting for Death." *Inter Press Service*, Oct. 10, 2003. Available at: <http://www.aegis.com/news/ips/2003/IP031010.html>.

<sup>571</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 71 (unpublished draft).

<sup>572</sup> See *id.* at 71-72; "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." *In Organisation for Economic Co-operation and Development, Trends in International Migration* (2003), at 135. Cultural differences may also hamper communications. See Rural Doctors Association of Southern Africa, *Position Paper: Crisis in Staffing of Rural Hospitals*, (Jan. 2001) at 2. Available at: [http://www.rudasa.org.za/download/crises\\_staffing.doc](http://www.rudasa.org.za/download/crises_staffing.doc).

<sup>573</sup> See Roman Rollnick, "Botswana's high-stakes assault on AIDS." *Africa Recovery* (Sept. 2002) 16(2-3): 4. Available at: <http://www.un.org/ecosocdev/geninfo/afrec/vol16no2/162aids2.htm>.

<sup>574</sup> World Bank, *Better Health for Africa: Experiences and Lessons Learned*, 1994, at 95. Available at: <http://www.worldbank.org/afr/pubs/bhaen.pdf>.

<sup>575</sup> See Rural Doctors Association of Southern Africa, *Position Paper: Crisis in Staffing of Rural Hospitals*, (Jan. 2001) at 2. Available at: [http://www.rudasa.org.za/download/crises\\_staffing.doc](http://www.rudasa.org.za/download/crises_staffing.doc).

<sup>576</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>577</sup> William Meeus & David Sanders, *Pull Factors in International Migration of Health Professionals* (March 2003), at slide 9. Available at: <http://www.hst.org.za/conf03/presentations/L0080.ppt>.

<sup>578</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

- <sup>579</sup> Rural Doctors Association of Southern Africa, *Working in South Africa*, <http://www.rudasa.org.za/worksa.php>. Accessed May 18, 2004.
- <sup>580</sup> Doctors are particularly important to treatment in South Africa because of the importance of physicians in the country's treatment strategy.
- <sup>581</sup> PHR interview, Eastern Cape, South Africa, April 21, 2004.
- <sup>582</sup> See United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, Public Law No. 108-25 (2003), 117 Stat. 711, at sec. 304.
- <sup>583</sup> Office of the United States Global AIDS Coordinator, *The President's Emergency Plan for AIDS Relief, U.S. Five-Year Global HIV/AIDS Strategy*, (Feb. 2004). at 37. Available at: <http://www.state.gov/documents/organization/29831.pdf>.
- <sup>584</sup> See US Agency for International Development, *Malawi: Health*, <http://www.usaid.gov/mw/programs/hpn.htm>. Accessed May 18, 2004.
- <sup>585</sup> See International Center for Equal Healthcare, <http://www.iceha.org/site/iceha>. Accessed May 18, 2004. Other organizations also provide volunteer opportunities for health professionals, such as the United Kingdom-based VSO. VSO, <http://www.vso.org.uk/index.htm>.
- <sup>586</sup> Eva Ombaka (Ecumenical Pharmaceutical Network, Kenya), e-drug listserv posting, Nov. 5, 2003.
- <sup>587</sup> Rural Doctors Association of Southern Africa, *Working in South Africa*, <http://www.rudasa.org.za/worksa.php>. Accessed May 18, 2004.
- <sup>588</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>589</sup> See World Bank, *2<sup>nd</sup> African Forum on Poverty Reduction Strategies, Group Discussion Summary, Theme III-D: Health and Education Policies for Poverty Reduction* (2001). Available at: <http://www.worldbank.org/wbi/attackingpoverty/activities/dakargd12summ.html>.
- <sup>590</sup> See "Incentives for Health Personnel in 'Deprived Communities'," *Accra Mail* (Ghana), Jan. 26, 2004.
- <sup>591</sup> "South Africa; R500m to Recruit, Retain Professionals in Public Health Sector." *BuaNews*, Jan. 29, 2004.
- <sup>592</sup> Public Health & Welfare Sectoral Bargaining Council, *Resolution 2 of 2004: Revised Non-Pensionable Recruitment Allowances, Referred to "The Recruitment Allowance": Public Sector Health Professionals Working in Hospitals/Institutions as Managed by the Health Employer in ISRDS Nodes; and Rural Areas* (Jan. 2004). Available at: [http://www.doh.gov.za/docs/misc/resolution2\\_2004.pdf](http://www.doh.gov.za/docs/misc/resolution2_2004.pdf).
- <sup>593</sup> PHR interview, Mount Ayliff Hospital, Eastern Cape, South Africa, April 22, 2004.
- <sup>594</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 56 (unpublished draft); "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 132-133.
- <sup>595</sup> See Veronica Mohapeloa, "HPCSA Urged to Lead Internship for Medical Students." *BuaNews* (Pretoria, South Africa), May 11, 2004.
- <sup>596</sup> See "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 133 ("The number of practitioners concerned (approximately 1 200 interns in the first year of the system in 1999) is much smaller than the number of vacancies in the public sector. To some extent, nevertheless, it is sufficient to meet the most urgent needs in the most deprived areas.")
- <sup>597</sup> See Rural Doctors Association of Southern Africa, *Position Paper: Crisis in Staffing of Rural Hospitals* (Jan. 2001), at 1. Available at: [http://www.rudasa.org.za/download/crises\\_staffing.doc](http://www.rudasa.org.za/download/crises_staffing.doc) (reporting that at the time, early 2001, only about one-quarter of community service doctors were allocated to rural hospitals). See also e-mail from Professor Steve Reid, Rural Health and Community-based Education, Nelson R. Mandela School of Medicine, University of Natal, June 7, 2004 (25% of community service placements were rural in 1999; 27% were rural in 2000; 25% were rural in 2001).
- <sup>598</sup> See Peter E. Bundred & Cheryl Levitt, "Medical Migration - who are the real losers?" *Lancet* (2000) 356: 245-46. Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial\\_an\\_d\\_review.1181.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.356.9225.editorial_an_d_review.1181.1&x=x.pdf).
- <sup>599</sup> PHR interview, Eastern Cape, South Africa, April 21, 2004.
- <sup>600</sup> See Rural Doctors Association of Southern Africa, *Position Paper: Crisis in Staffing of Rural Hospitals*, (Jan. 2001) at 1. Available at: [http://www.rudasa.org.za/download/crises\\_staffing.doc](http://www.rudasa.org.za/download/crises_staffing.doc).
- <sup>601</sup> "Brain drain worries SA," May 13, 2002. Available at: <http://www.africasbraingain.org/newsletter/>.
- <sup>602</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>.
- <sup>603</sup> "The international mobility of health professionals: An evaluation and analysis based on the case of South Africa." In Organisation for Economic Co-operation and Development, *Trends in International Migration* (2003), at 132-133.
- <sup>604</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 73 (unpublished draft).
- <sup>605</sup> See Claire Keeton, "The Health Bill that caused all the trouble." *Financial Mail* (South Africa), Feb. 8, 2004, at 5; "South Africa: House Approves New Health Bill Despite 'Vehement' Opposition." *BBC Monitoring International Reports*, Sept. 5, 2003.
- <sup>606</sup> See Claire Bissek, "Health: Doctors Mad at Manto's Prescriptions." *Financial Mail* (South Africa), Feb. 13, 2004, at 24.
- <sup>607</sup> *Id.*
- <sup>608</sup> See Claire Keeton, "The Health Bill that caused all the trouble." *Financial Mail* (South Africa), Feb. 8, 2004, at 5. It has also been suggested that the certificate of need might violate physicians' rights to freedom of movement and residence. See Jacquie Pile, "Health Regulations: Industry Drops Diplomacy and Prepares for Defiance." *Financial Mail* (South Africa), April 2, 2004, at 26. The policy's implications for internal movement may be particularly controversial in South Africa because of the bitter legacy of the apartheid government's restrictions on movements. See John Kane-Berman, "Bill of Rights gives doctors remedy against minister." Opinion. *Business Day* (South Africa), Jan. 27, 2004, at 7.
- <sup>609</sup> "Health Warning." Opinion. *Business Day* (South Africa), Jan. 28, 2004, at 10.
- <sup>610</sup> See Kgosi Letlape, "What the Doctors Ordered." *Financial Mail* (South Africa), Feb. 20, 2004, at 22.

<sup>611</sup> See John Kane-Berman, "Bill of Rights gives doctors remedy against minister." Opinion. *Business Day* (South Africa), Jan. 27, 2004, at 7.

<sup>612</sup> E-mail from Lucy Gilson, Deputy Director, Centre for Health Policy, Wits University, South Africa, June 4, 2004.

<sup>613</sup> Another restrictive policy, one aimed not at getting health professionals to practice in underserved areas, but rather at encouraging them to remain in the country, is bonding. This policy requires graduates to post a bond, possibly equivalent to the cost of their government-paid education, which they must pay if they leave the country before a certain number of years have passed. Zimbabwe has such a scheme for nurses, with the bonding period of three years. Stella Zengwa, *Zimbabwe: Nurses under Pressure*, Equinet, <http://www.equinetafrica.org/newsletter/newsletter.php?id=750>. Accessed Jan. 20, 2004 ("A shortage of nurses means that at present all our new nurse graduates are bonded for 3 years, but experienced nurses continue to be lost to neighbouring countries and abroad"). Lesotho and Ghana have bonding policies. See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>. Ghana's bonding policy for physicians required medical graduates to remain in the country for five years, but the policy is no longer in effect because of difficulties enforcing it and other issues. Debtors were hard to locate, making monitoring compliance problematic, and the value of the bond fluctuated markedly in the absence of a stable exchange rate. See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 69-70 (unpublished draft). Ghana does have a bonding policy for nurses in effect. If nurses desire to seek employment abroad before they have served for three years in Ghana, they must pay the Ministry of Health a special fee when seeking verification of their credentials, which is necessary for them to gain nursing employment abroad. E-mail from Dr. Delanyo Dovlo, Ghana, June 9, 2004. It may be relatively easy for health professionals who migrate to a high-income country to repay the bond, in which case it would serve as little deterrence to leaving, and administrative and enforcement costs may be high. See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 30. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>. See also Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf) ("Bonding of Health professionals have not worked very well for a variety of reasons. Perhaps most important of these is the often poor administrative efficiency of HR management systems in public service as well as lack of agreement between the education and health sectors as to how to tackle this"). Potentially, the effectiveness of a bonding policy could be enhanced if it were implemented with active cooperation from the governments of the wealthy nations to which the health professionals migrate, such as by requiring proof of progress towards repaying the cost of their education in order to get a nursing or medical license, or to get that license renewed. Another suggestion that has been made to keep health professionals in the country is to impose a tax on those who leave, something that the South African Nursing Council has proposed for nurses who leave to work abroad. See Barbara L. Brush, Julie Sochalski & Anne M. Berger, "Imported Care: Recruiting Foreign Nurses to U.S. Health Care Facilities." *Health Affairs* (May-June 2004), 23(3): 78, 82. Eritrea has a 2% income tax on its expatriates. See Delanyo Dovlo, *The Brain Drain and Retention of Health Professionals in Africa* (Sept. 2003), at 6. Available at: [http://www.worldbank.org/afr/teia/conf\\_0903/dela\\_dovlo.pdf](http://www.worldbank.org/afr/teia/conf_0903/dela_dovlo.pdf).

<sup>614</sup> See South Africa Ministry of Health, *Operational plan for comprehensive HIV and AIDS care and treatment for South Africa* (Nov. 19, 2003), at 120. Available at: <http://www.gov.za/reports/2003/aid-splan/chap5.pdf>.

<sup>615</sup> Regional Network for Equity in Health in Southern Africa (EQUINET) and Oxfam (Great Britain) (Jean-Marion Aitken & Julia Kemp), *HIV/AIDS, Equity and Health Sector Personnel in Southern Africa* (Sept. 2003), at 32. Available at: <http://www.equinetafrica.org/bibl/docs/hivpersonnel.pdf>.

<sup>616</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>617</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 68-69 (unpublished draft).

<sup>618</sup> See Elma de Vries & Steven Reid, *Do South African Rural Origin Medical Students Return to Rural Practice?* (May 2003). Available at: <ftp://ftp.hst.org.za/pubs/research/ruralorigin.pdf>. See also Jay Greene, "Rural Doctors Often Born and Raised, Not Recruited." *AMNews*, Oct. 1, 2001. Available at: <http://www.ama-assn.org/amed-news/2001/10/01/prsa1001.htm> ("[P]lace of birth appears to be the best predictor of whether a medical student chooses to practice in a rural area or small town, according to a new [US] study. But a consistent mentoring program during medical school and family practice preceptorships are also key").

<sup>619</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 29. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>620</sup> E-mail from Libby Levison, Pharmaceutical Management Consultant, June 8, 2004.

<sup>621</sup> E-mail from Vasant Narasimhan, McKinsey and Co., May 30, 2004.

<sup>622</sup> Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 21. Available at: <http://www.equinetafrica.org/bibl/docs/healthpersonnel.pdf>.

<sup>623</sup> See *id.* at 30.

<sup>624</sup> Joan Corkery, "Public Service Reforms and Their Impact on Health Sector Personnel in Uganda." In International Labour Office & World Health Organization, *Public service reforms and their impact on health sector personnel: Case studies on Cameroon, Colombia, Jordan, Philippines, Poland, Uganda* (2000), at 263. Available at: <http://www.ilo.org/public/english/dialogue/sector/papers/health/pub-serv6.pdf>.

<sup>625</sup> See World Bank, *2<sup>nd</sup> African Forum on Poverty Reduction Strategies, Group Discussion Summary, Theme III-D: Health and Education Policies for Poverty Reduction* (2001). Available at: <http://www.worldbank.org/wbi/attackingpoverty/activities/dakargd12summ.html>.

<sup>626</sup> Gumisai Mutume, "Reversing Africa's 'Brain Drain'." *Africa Recovery* (July 2003). Available at: <http://www.un.org/ecosocdev/geninfo/afrec/vol17no2/172brain.htm>.

<sup>627</sup> Africa's Brain G19, 2004.

- <sup>628</sup> E-mail from Ralph Welcker & Maria Brons, International Organization of Migration (IOM) The Hague, June 9, 2004.
- <sup>629</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 31. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>; Gumisai Mutume, "Reversing Africa's 'Brain Drain'." *Africa Recovery* (July 2003). Available at: <http://www.un.org/ecosocdev/geninfo/afrec/vol17no2/172brain.htm>.
- <sup>630</sup> See Assouman Yao Honoré, "Diasporas, Brain Drain and Return." *African Societies* (July 31, 2002). Available at: [http://www.africansocieties.org/eng\\_giugno2002/eng\\_brain.htm](http://www.africansocieties.org/eng_giugno2002/eng_brain.htm).
- <sup>631</sup> See Gumisai Mutume, "Reversing Africa's 'Brain Drain'." *Africa Recovery* (July 2003). Available at: <http://www.un.org/ecosocdev/geninfo/afrec/vol17no2/172brain.htm>.
- <sup>632</sup> Immigration and Nationality Act, 8 USC sec. 1427 (2004).
- <sup>633</sup> Return of Talents Act, S. 1949 (introduced in Senate Nov. 23, 2003), at sec. 3.
- <sup>634</sup> See *Id.* at sec. 2.
- <sup>635</sup> Assouman Yao Honoré, "Diasporas, Brain Drain and Return." *African Societies* (July 31, 2002). Available at: [http://www.africansocieties.org/eng\\_giugno2002/eng\\_brain.htm](http://www.africansocieties.org/eng_giugno2002/eng_brain.htm).
- <sup>636</sup> See *Id.*
- <sup>637</sup> See David H. Shinn, *Reversing the Brain Drain in Ethiopia*, lecture at the Elliot School of International Affairs at George Washington University, Nov. 23, 2002. Available at: <http://www.gwu.edu/~elliott/news/transcripts/ethiopia.html>.
- <sup>638</sup> See Regional Network for Equity in Health in Southern Africa (EQUINET), Health Systems Trust (South Africa) & MEDACT (UK), *Health Personnel in Southern Africa: Confronting maldistribution and brain drain* (2003), at 13. Available at: <http://www.equinet africa.org/bibl/docs/healthpersonnel.pdf>. See also Assouman Yao Honoré, "Diasporas, Brain Drain and Return." *African Societies* (July 31, 2002). Available at: [http://www.africansocieties.org/eng\\_giugno2002/eng\\_brain.htm](http://www.africansocieties.org/eng_giugno2002/eng_brain.htm) (citing one reason that African expatriates have difficulty returning to Africa as "conditions of access to job markets which make it difficult for the returning expatriates to find space to apply their capacities").
- <sup>639</sup> See International Organization of Migration, Migration for Development in Africa Health Programme, Presentation by Mrs Ndioro Ndiaye at the 52nd Session of the WHO Committee Meeting for Africa Harare, 8-12 October 2002, at slide 34. Available at: <http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide34.JPG.htm>.
- <sup>640</sup> E-mail from Ralph Welcker & Maria Brons, International Organization of Migration (IOM) The Hague, June 9, 2004.
- <sup>641</sup> See International Organization of Migration, *Self-Evaluation Report: MIDA Great Lakes, November 2001-November 2002* (c. 2003). Available at: <http://www.iom.int/MIDA/pdf/GreatLakes1.pdf>.
- <sup>642</sup> See International Organization of Migration, Migration for Development in Africa (MIDA) Programme, [http://www.iom.int/mida/mida\\_health.shtml](http://www.iom.int/mida/mida_health.shtml). Accessed June 12, 2004.
- <sup>643</sup> See Africa's Brain Gain, Inc., *Mission - Africa's Brain Gain*, <http://www.africasbraingain.org/pages/mission.php>. Accessed May 20, 2004. Other private initiatives are being organized to facilitate members of the African diaspora to contribute their skills to their countries of origin. For example, FindaJobinAfrica (Find a Job in Africa) posts job openings in Africa in a number of fields, including health. See FindaJobinAfrica, <http://www.findajobinafrica.com/findajobinafrica/index.jsp>. Accessed May 20, 2004.
- <sup>644</sup> Private communication with Dr. Mark Kline, Director, Baylor International Pediatric AIDS Initiative, Baylor College of Medicine, Texas Children's Hospital, Sept. 10, 2003.
- <sup>645</sup> International Organization of Migration, *Migration for Development in Africa (MIDA) Programme*, [http://www.iom.int/mida/mida\\_health.shtml](http://www.iom.int/mida/mida_health.shtml). Accessed May 20, 2004.
- <sup>646</sup> See Amy Hagopian, "The Flight of Physicians from West Africa: Views of African Physicians and Implications for Policy," (2003) at 74 (unpublished draft).
- <sup>647</sup> The IOM is working to encourage members of the African diaspora to financially support health sectors in their countries of origin. See International Organization of Migration, Migration for Development in Africa Health Programme, Presentation by Mrs Ndioro Ndiaye at the 52nd Session of the WHO Committee Meeting for Africa Harare, 8-12 October 2002, at slide 34. Available at: <http://www.iom.int/en/Presentations/MIDAHealth/pages/Slide34.JPG.htm>.
- <sup>648</sup> Patrick Bond & George Dor, *Uneven Health Outcomes and Neoliberalism in Africa* (March 2003), at 6. Available at: <http://www.equinet africa.org/bibl/docs/bond1.pdf>. See also World Bank (Philippe Le Houerou & Robert Taliercio) *Medium Term Expenditure Frameworks: From Concept to Practice. Preliminary Lessons from Africa, Africa Region Working Paper Series No. 28* (February 2002), at 3 (referring to "Setting medium term sector budget ceilings (cabinet approval)" as a characteristic of a comprehensive medium-term expenditure framework).
- <sup>649</sup> Peter Piot (Executive Director, UNAIDS), *AIDS: The Need for an Exceptional Response to an Unprecedented Crisis*, Presidential Fellows Lecture, World Bank, Washington, DC, Nov. 20, 2003. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,content-MDK:20140527~menuPK:34476~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.
- <sup>650</sup> James Wolfensohn (President, World Bank), *AIDS: The Need for an Exceptional Response to an Unprecedented Crisis*, Presidential Fellows Lecture, World Bank, Washington, DC, Nov. 20, 2003. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,content-MDK:20140527~menuPK:34476~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.
- <sup>651</sup> International Monetary Fund, *IMF Executive Board Completes Reviews of Poverty Reduction Efforts in Poor Countries*, News Brief No. 02/21, March 15, 2002. Available at: <http://www.imf.org/external/np/sec/nb/2002/nb0221.htm>.
- <sup>652</sup> See, e.g., UN Development Program - Vietnam, *What is a Medium-Term Expenditure Framework (MTEF)?* (Jan. 2000). Available at: <http://www.undp.org.vn/projects/vie96028/>; Hang Chuon Naron, Deputy Secretary-General, Ministry of Economy and Finance, Cambodia, *Basing PRSP on a Realistic Expenditure Plan*, Presentation at the National Workshop on the PRSP Outline and Matrices organized by the Council for Social Development and Supported by the World Bank, Hotel Inter-Continental, Cambodia, June 28, 2002. Available at: <http://www.mef.gov.kh/SpeechDr.Naron/speechnaron9.htm>; World Bank, *Heavily Indebted Poor Countries Initiative FAQ* (July 2002). Available at: <http://www.worldbank.org/hipc/faq/faq.html>; World Bank, *Poverty Reduction Strategies and PRSPs: Overview of Poverty Reduction Strategies*, <http://www.worldbank.org/poverty/strategies/overview.htm>. Last updated Feb. 3, 2003.
- <sup>653</sup> Robert Greener, *HIV/AIDS and Absorptive Capacity: From Constraint to Opportunity*, Sponsored by Global Health Council, Capitol Building, Washington, DC, Jan. 29, 2004, at 38, 42. Available at:

[http://www.kaisernet.org/health\\_cast/uploaded\\_files/012904\\_ghc\\_aids.pdf](http://www.kaisernet.org/health_cast/uploaded_files/012904_ghc_aids.pdf).

<sup>654</sup> Government of Rwanda, Ministry of Finance and Economic Planning, *Poverty Reduction Strategy Paper* (June 2002), at para. 275. Available at: <http://www.imf.org/External/NP/prsp/2002/rwa/01/063102.pdf>.

<sup>655</sup> See World Bank Institute Human Development Group, Global HIV/AIDS Program, *A Concept Paper for the Belgian Cooperation: The Impact of Macroeconomic Policies on the Human Capacity to Deliver HIV/AIDS and Education Programs: A Multisectoral Policy Dialogue* (draft) (March 29, 2004), at 4. An IMF publication from 1998 observed, "Since there is no ideal size for a country's civil service, its actual size is likely to continue to be dictated by macroeconomic realities, such as the need for fiscal adjustment, the amount of tax revenue available to pay civil servants, and the balance between wage and nonwage government spending." It notes that recruitment freezes are one form of further retrenchment of the civil service. Ian Lienert, "Civil Service Reform in Africa: Mixed Results after 10 Years." *Finance & Development* (July 1998) 35(2). Available at: <http://www.imf.org/external/pubs/ft/fandd/1998/06/lienert.htm>.

<sup>656</sup> World Health Organization, *The World Health Report 2004* (2004), at 65. Available at: <http://www.who.int/whr/2004/chapter4/en/index7.html>.

<sup>657</sup> Letter of Intent from Emmanuel G. Kasonde, Minister of Finance and National Planning, Zambia, to Horst Köhler, Managing Director, International Monetary Fund, at para. 13, Nov. 8, 2002. Available at: <http://www.imf.org/external/np/loi/2002/zmb/02/index.htm#loi3>

<sup>658</sup> USAID, Bureau for Africa, *The Health Sector Human Resource Crisis in Africa: An Issues Paper* (Feb. 2003), at 3. Available at: <http://www.aed.org/publications/HealthSector.pdf>.

<sup>659</sup> Steve Gloyd (Harvard AIDS Institute), *Integrated HIV Care and Prevention in Mozambique - Clinton Foundation Initiative* (April 10, 2003), at slide 28. The implication that the IMF had a direct role in restrictions on health worker employment is noteworthy, as typically the IMF has a role in setting overall limits, but not sector-specific constraints. Possibly, the IMF was involved because the increased level of health worker employment might have violated overall limits pertaining to civil servants.

<sup>660</sup> Joan Corkery, "Public Service Reforms and Their Impact on Health Sector Personnel in Uganda." In International Labour Organization & World Health Organization, *Public service reforms and their impact on health sector personnel: Case studies on Cameroon, Colombia, Jordan, Philippines, Poland, Uganda* (2000), at 244. Available at: <http://www.ilo.org/public/english/dialogue/sector/papers/health/pub-serv6.pdf>.

<sup>661</sup> Jong-wook Lee, *Meeting of Interested Parties: opening session*, Geneva, Switzerland, Nov. 3, 2003. Available at: [http://www.who.int/dg/lee/speeches/2003/MIP\\_Openingsession/en/](http://www.who.int/dg/lee/speeches/2003/MIP_Openingsession/en/). See also Jong-wook Lee, "Global health improvement and WHO: shaping the future." *Lancet* (2003) 362: 2083-88. Available at: [http://www.who.int/whr/2003/media\\_centre/lee\\_article/en/index4.html](http://www.who.int/whr/2003/media_centre/lee_article/en/index4.html) ("For example, WHO's 3 by 5 emergency mission in Kenya found that about 4000 nurses, 1000 clinical officers, 2000 laboratory staff, and 160 pharmacists or pharmacy technicians are currently unemployed in that country").

<sup>662</sup> Letter of Intent from Emmanuel G. Kasonde, Minister of Finance and National Planning, Zambia, to Horst Köhler, Managing Director, International Monetary Fund, at para. 13, Nov. 8, 2002. Available at: <http://www.imf.org/external/np/loi/2002/zmb/02/index.htm#loi3>.

<sup>663</sup> Bretton Woods Project, *Life under the IMF's magnifying glass: A*

*Zambian civil servant chafes at the collar*, April 5, 2004. Available at: [http://www.brettonwoodsproject.org/article.shtml?cmd\[126\]=x-126-42221](http://www.brettonwoodsproject.org/article.shtml?cmd[126]=x-126-42221); Letter of Intent from Emmanuel G. Kasonde, Minister of Finance and National Planning, Zambia, to Horst Köhler, Managing Director, International Monetary Fund, at paras. 12-13, Nov. 8, 2002. Available at: <http://www.imf.org/external/np/loi/2002/zmb/02/index.htm#loi3>. Technical Memorandum of Understanding from Emmanuel G. Kasonde, Minister of Finance and National Planning, Zambia, to Horst Köhler, Managing Director, International Monetary Fund, at para. 37, Nov. 8, 2002. Available at: <http://www.imf.org/external/np/loi/2002/zmb/02/index.htm#loi3>.

<sup>664</sup> "UN envoy on AIDS in Africa urges IMF to ease requirements on Zambia." *UN news centre*, June 11, 2004. Available at: <http://www.un.org/apps/news/story.asp?NewsID=11032&Cr=zambia&Cr1=aids>.

<sup>665</sup> International Monetary Fund press release, *Joint Statement by the IMF Mission and the Government of Zambia*, Nov. 17, 2003. Available at: <http://www.imf.org/external/np/sec/pr/2003/pr03195.htm>.

<sup>666</sup> "Struggling to stop exodus of doctors, nurses." *Ghanaian Chronicle*, Oct. 6, 2003. Available at: <http://www.ghanaian-chronicle.com/231006/page2o.htm>.

<sup>667</sup> Lincoln C. Chen, *Mobilizing Health and Finance to Dampen Disease and Build Systems*, Keynote Address to Second Consultation Commission on Macroeconomics and Health, World Health Organization, Geneva, October 29, 2003, at 5. Available at: <http://www.globalhealthtrust.org/doc/WHOSpeech%20Final.doc>; Charles Wendo, "Ugandan Officials Negotiate Global Fund Grants." *Lancet* (Jan. 17, 2004) 363: 222. Available at: <http://www.thelancet.com/journal/vol363/iss9404/full/lan.363.9404.news.28415.1>.

<sup>668</sup> See Charles Wendo, "Ugandan Officials Negotiate Global Fund Grants." *Lancet* (Jan. 17, 2004) 363: 222. Available at: <http://www.thelancet.com/journal/vol363/iss9404/full/lan.363.9404.news.28415.1>. The \$135 million figure is from Global Fund to Fight AIDS, Tuberculosis and Malaria, *Portfolio of Grants in Uganda*, <http://www.theglobalfund.org/search/portfolio.aspx?countryID=UGD>. Accessed June 8, 2004. Similar issues have arisen in Tanzania and Mozambique. See Policy Development and Review Department, International Monetary Fund, *Aligning the Poverty Reduction and Growth Facility (PRGF) and the Poverty Reduction Strategy Paper (PRSP) Approach: Issues and Options* (April 25, 2003), at 12, n. 13.

<sup>669</sup> E-mail from Charles Wendo, Ugandan journalist with the *New Vision* newspaper, June 10, 2004.

<sup>670</sup> Thomas C. Dawson, *Uganda and the IMF: The Debate on Aid Flows to Uganda: The IMF's Point of View*, June 7, 2002. Available at: <http://www.imf.org/external/np/vc/2002/060702.htm>.

<sup>671</sup> See United Kingdom Department for International Development, *The Macroeconomic Effects of Aid* (Dec. 2002), at 3. Available at: [http://www.dfid.gov.uk/Pubs/files/macroeconomics\\_effects.pdf](http://www.dfid.gov.uk/Pubs/files/macroeconomics_effects.pdf).

<sup>672</sup> See Centre for Health Policy, University of the Witwatersrand & Health Economics Unit, University of Cape Town (Lucy Gilson et al.), *The Dynamics of Policy Change: Health Care Financing in South Africa* (Nov. 1999), at 33-35.

<sup>673</sup> See Centre for Health Policy, University of the Witwatersrand & Health Economics Unit, University of Cape Town (Lucy Gilson et al.), *The Dynamics of Policy Change: Health Care Financing in South Africa* (Nov. 1999), at 67, 102-103; Private communication with Lucy Gilson, Deputy Director, Centre for Health Policy, Wits University, South Africa, April 23, 2004. A 1998 study found that "real per capita public sector health care expenditure was R516 in 1995/96 and was expected to decline slightly (to R512) by 2000/01." Centre for Health Policy, University of the Witwatersrand & Health Economics Unit,

University of Cape Town (Lucy Gilson et al.), *The Dynamics of Policy Change: Health Care Financing in South Africa* (Nov. 1999), at 67.

<sup>674</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 12(b).

<sup>675</sup> See, e.g., Margaret Whitehead, Göran Dahlgren & Timothy Evans, "Equity and health sector reforms: can low-income countries escape the medical poverty trap?" *Lancet* (2001) 358: 833-836, at 834 (2001). Available at: [http://pdf.thelancet.com/pdfdownload?uid=llan.358.9284.editorial\\_and\\_review.17587.1&x=x.pdf](http://pdf.thelancet.com/pdfdownload?uid=llan.358.9284.editorial_and_review.17587.1&x=x.pdf) (citing the United Nations Research Institute for Social Development, which reported: "Of all measures proposed for raising revenue from local people this [user fees] is probably the most ill advised. One study of 39 developing countries found that the introduction of user fees had increased revenues only slightly, while significantly reducing the access of low-income people to basic social services. Other studies have shown that fees reinforce gender inequality").

<sup>676</sup> See Dyna Arhin-Tenkorang, *Mobilizing Resources for Health: The Case for User Fees Revisited*, Center for International Development Working Paper No. 81, Dec. 2001, at 11. Available at: <http://www2.cid.harvard.edu/cidwp/081.pdf>.

<sup>677</sup> See *id.* at 12.

<sup>678</sup> Joanne Carter & Rick Rowden, *User Fees on Primary Health and Education*, <http://www.holycrossjustice.org/ResultsUSA.htm>. Accessed Dec. 17, 2002.

<sup>679</sup> See Lucy Gilson & Anne Mills, "Health Sector Reforms in sub-Saharan Africa: Lessons of the Last 10 Years." In: Peter Berman (editor), *Health Sector Reform in Developing Countries: Making Health Development Sustainable* (1995) 277-316, at 284.

<sup>680</sup> Médecins Sans Frontières, *Access to health care in Burundi: Results of three epidemiological surveys* (March 2004), at 5, 53. Available at: [http://www.msf.be/fr/pdf/burundi\\_eng.pdf](http://www.msf.be/fr/pdf/burundi_eng.pdf).

<sup>681</sup> See Joanne Carter & Rick Rowden, *User Fees on Primary Health and Education*, <http://www.holycrossjustice.org/ResultsUSA.htm>. Accessed Dec. 17, 2002. See also Robert Naiman, *Is U.S. Treasury above the Law?*, June 7, 2001. Available at: [http://www.cepr.net/treasury\\_tanzania.htm#\\_edn3](http://www.cepr.net/treasury_tanzania.htm#_edn3) (citing UNICEF study that programs to exempt or reduce the contributions of the poor from user fees for education and primary health care often reach less than 5% of the targeted group).

<sup>682</sup> See Kevin Watkins, *Cost-recovery and equity in the health sector: issues for developing countries*, Feb. 27, 1997. Available at: <http://www.oxfam.org.uk/policy/research/helsinki.htm>.

<sup>683</sup> See Janine Simon, "Mandela Counts the Costs of Free Health Care." *Panos* (London), May 19, 1997. Available at: <http://www.aegis.com/news/panos/1997/PS970501.html>. For information on the effect of eliminating user fees for maternal health care in South Africa, see Helen Schneider & Lucy Gilson, "The Impact of Free Maternal Health Care in South Africa." In: Marge Berer & T.K. Sundari Ravindran (eds.) *Safe Motherhood Initiatives: Critical Issues* (1999).

<sup>684</sup> "[T]he Committee [on Economic, Social and Cultural Rights] underlines the fact that even in times of severe resources constraints whether caused by a process of adjustment, of economic recession, or by other factors the vulnerable members of society can and indeed must be protected by the adoption of relatively low-cost targeted programmes. In support of this approach the Committee takes note of the analysis prepared by UNICEF entitled 'Adjustment with a human face: protecting the vulnerable and promoting growth,' the analysis by UNDP in its Human Development Report 1990 and the analysis by the World Bank in the World Development Report 1990." Committee on

Economic, Social and Cultural Rights, *General Comment 3, The nature of States parties obligations (Art. 2, para.1 of the Covenant)* (Fifth session, 1990), Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.1 at 45 (1994), at para. 12.

<sup>685</sup> Peter S. Heller, Deputy Director, Fiscal Affairs Department, International Monetary Fund, *Wealth Creation and Social Justice: An IMF Perspective*, Speaking Notes Prepared for World Council of Churches — World Bank — IMF Meeting, Geneva, Switzerland, Feb. 13-14, 2003. Available at: <http://www.imf.org/external/np/speeches/2003/021303a.htm> (emphasis in original). See also International Monetary Fund, Fiscal Affairs and Policy Development and Review Departments, *Social Policy Issues in IMF-Supported Programs: Follow-up on the 1995 World Summit for Social Development* (March 16, 2000), at para. 17. Available at: <http://www.imf.org/external/np/fad/wldsum> ("Research has established that . . . economic growth is the most significant single factor that contributes to poverty reduction").

<sup>686</sup> Policy Development and Review Department, International Monetary Fund, *Role of the Fund in Low-Income Member Countries over the Medium Term – Issues Paper for Discussion*, July 21, 2003, at 2. Available at: <http://www.imf.org/external/np/pdr/sustain/2003/072103.pdf>.

<sup>687</sup> See Peter S. Heller, Deputy Director, Fiscal Affairs Department, International Monetary Fund, *Wealth Creation and Social Justice: An IMF Perspective*, Speaking Notes Prepared for World Council of Churches — World Bank — IMF Meeting, Geneva, Switzerland, Feb. 13-14, 2003. Available at: <http://www.imf.org/external/np/speeches/2003/021303a.htm> ("there is now recognition of the importance of poverty reduction as an equally critical objective in its own right, side by side with economic growth"); Thomas C. Dawson, *Uganda and the IMF: The Debate on Aid Flows to Uganda: The IMF's Point of View*, June 7, 2002. Available at: <http://www.imf.org/external/np/vc/2002/060702.htm> ("The government's [of Uganda] priority – a priority that is shared by the IMF – is to increase the availability of domestic and foreign resources to reduce poverty").

<sup>688</sup> International Monetary Fund (Anupam Basu, Evangelos A. Calamitsis & Dhaneshwar Ghura), *Promoting Growth in Sub-Saharan Africa: Learning What Works* (August 2000). Available at: <http://www.imf.org/external/pubs/ft/issues/issues23/>. Reductions in exports also deprive countries of hard currency needed to pay back creditors.

<sup>689</sup> See United Kingdom Department for International Development, *The Macroeconomic Effects of Aid* (Dec. 2002), at 3. Available at: [http://www.dfid.gov.uk/Pubs/files/macroeconomics\\_effects.pdf](http://www.dfid.gov.uk/Pubs/files/macroeconomics_effects.pdf).

<sup>690</sup> See Letter from Nicholas Stern and Gobind Nankani to World Bank staff, Re: Macroeconomic Implications of Increased Aid: A guidance Note for Bank Staff, Jan. 16, 2003, at para. 9.

<sup>691</sup> See *id.* at para. 8.

<sup>692</sup> Open letter from Professor Jeffrey D. Sachs, Chair, WHO Commission on Macroeconomics and Health, to Members of the Government of Uganda, May 17, 2002.

<sup>693</sup> See United Kingdom Department for International Development, *The Macroeconomic Effects of Aid* (Dec. 2002), at 4. Available at: [http://www.dfid.gov.uk/Pubs/files/macroeconomics\\_effects.pdf](http://www.dfid.gov.uk/Pubs/files/macroeconomics_effects.pdf).

<sup>694</sup> International Monetary Fund (Anupam Basu, Evangelos A. Calamitsis & Dhaneshwar Ghura), *Promoting Growth in Sub-Saharan Africa: Learning What Works* (August 2000). Available at: <http://www.imf.org/external/pubs/ft/issues/issues23/>.

<sup>695</sup> Mick Foster & Keith Andrews, *The Case for Aid: Final Report to the Department for International Development, Volume 1: Main Report* (Dec. 2003), at 12. Available at: [http://www.dfid.gov.uk/Pubs/files/caseforaid\\_vol1.pdf](http://www.dfid.gov.uk/Pubs/files/caseforaid_vol1.pdf).

<sup>696</sup> United Kingdom Department for International Development, *The Macroeconomic Effects of Aid* (Dec. 2002), at 1. Available at: [http://www.dfid.gov.uk/Pubs/files/macroeconomics\\_effects.pdf](http://www.dfid.gov.uk/Pubs/files/macroeconomics_effects.pdf).

<sup>697</sup> See Thomas C. Dawson, *Uganda and the IMF: The Debate on Aid Flows to Uganda: The IMF's Point of View*, June 7, 2002. Available at: <http://www.imf.org/external/np/vc/2002/060702.htm>; Letter from Nicholas Stern and Gobind Nankani to World Bank staff, Re: Macroeconomic Implications of Increased Aid: A guidance Note for Bank Staff, Jan. 16, 2003, at para. 9.

<sup>698</sup> International Monetary Fund (Anupam Basu, Evangelos A. Calamitsis & Dhaneshwar Ghura), *Promoting Growth in Sub-Saharan Africa: Learning What Works* (August 2000). Available at: <http://www.imf.org/external/pubs/ft/issues/issues23/> (listing inflation as a key determinant of growth in sub-Saharan Africa).

<sup>699</sup> See Government of Rwanda, Ministry of Finance and Economic Planning, *Poverty Reduction Strategy Paper* (June 2002), at para. 100. Available at: <http://www.imf.org/External/NP/prsp/2002/rwa/01/063102.pdf>; Oxfam International, *IMF and the Millennium Development Goals: Failing to Deliver for Low Income Countries* (Sept. 2003), at 8. Available at: [http://www.oxfam.org.uk/what\\_we\\_do/issues/debt\\_aid/downloads/bp54\\_imfmdgs.pdf](http://www.oxfam.org.uk/what_we_do/issues/debt_aid/downloads/bp54_imfmdgs.pdf).

<sup>700</sup> United Kingdom Department for International Development, *The Macroeconomic Effects of Aid* (Dec. 2002), at 1, 7. Available at: [http://www.dfid.gov.uk/Pubs/files/macroeconomics\\_effects.pdf](http://www.dfid.gov.uk/Pubs/files/macroeconomics_effects.pdf).

<sup>701</sup> Oxfam International, *IMF and the Millennium Development Goals: Failing to Deliver for Low Income Countries* (Sept. 2003), at 8. Available at: [http://www.oxfam.org.uk/what\\_we\\_do/issues/debt\\_aid/downloads/bp54\\_imfmdgs.pdf](http://www.oxfam.org.uk/what_we_do/issues/debt_aid/downloads/bp54_imfmdgs.pdf).

<sup>702</sup> See Charles Abugre, *Still Sapping the Poor: A critique of IMF poverty reduction strategies* (June 2000). Available at: <http://www.wdm.org.uk/cambriefs/debt/PRSPcrit.htm>. Inflation in Malawi, one country suffering from brain drain, is relatively high, about 20%. While this makes inflation more of a concern in Malawi, for aid to be harmful, the additional impact of the aid on inflation would have to be so great that it outweighs the tremendous benefits that would come from improving the human resources for health situation in Malawi.

<sup>703</sup> "Research has established that low fiscal deficits and price stability promotes growth." International Monetary Fund, Fiscal Affairs and Policy Development and Review Departments, *Social Policy Issues in IMF-Supported Programs: Follow-up on the 1995 World Summit for Social Development* (March 16, 2000), at para. 17. Available at: <http://www.imf.org/external/np/fad/wldsum>.

<sup>704</sup> See Letter from Nicholas Stern and Gobind Nankani to World Bank staff, Re: Macroeconomic Implications of Increased Aid: A guidance Note for Bank Staff, Jan. 16, 2003, at para. 7.

<sup>705</sup> Despite the IMF's apparent change in position, it is possible that finance ministries will continue to adhere to IMF's original position. This possibility points to the importance of increased transparency and dialogue on macroeconomic policies and their impact on health and other social sectors.

<sup>706</sup> Oxfam International, *IMF and the Millennium Development Goals: Failing to Deliver for Low Income Countries* (Sept. 2003), at 10. Available at: [http://www.oxfam.org.uk/what\\_we\\_do/issues/debt\\_aid/downloads/bp54\\_imfmdgs.pdf](http://www.oxfam.org.uk/what_we_do/issues/debt_aid/downloads/bp54_imfmdgs.pdf).

<sup>707</sup> *Id.* at 1-2, 29 n. 5.

<sup>708</sup> Eurostat, *Euro-indicators news release: First notification of deficit and debt data for 2003: Euro-zone government deficit at 2.7% of GDP and public debt at 70.4% of GDP*, March 16, 2004. Available

at: <http://europa.eu.int/comm/eurostat/Public/dashop/print-product/EN?catalogue=Eurostat&product=2-16032004-EN-AP-EN&type=pdf>.

<sup>709</sup> US Department of State, Bureau of Economic and Business Affairs, *2000 Country Reports on Economic Policy and Trade Practices* (March 2001), at 2. Available at: <http://www.state.gov/documents/organization/1618.pdf>.

<sup>710</sup> Eurostat, *Euro-indicators news release: First notification of deficit and debt data for 2003: Euro-zone government deficit at 2.7% of GDP and public debt at 70.4% of GDP*, March 16, 2004. Available at: <http://europa.eu.int/comm/eurostat/Public/dashop/print-product/EN?catalogue=Eurostat&product=2-16032004-EN-AP-EN&type=pdf>.

<sup>711</sup> Oxfam International, *IMF and the Millennium Development Goals: Failing to Deliver for Low Income Countries* (Sept. 2003), at 10. Available at: [http://www.oxfam.org.uk/what\\_we\\_do/issues/debt\\_aid/downloads/bp54\\_imfmdgs.pdf](http://www.oxfam.org.uk/what_we_do/issues/debt_aid/downloads/bp54_imfmdgs.pdf).

<sup>712</sup> Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development* (Dec. 2001), at 6, 11, 112, n. 17. Available at: [http://www3.who.int/whosis/cmh/cmh\\_report/report.cfm?path=cmh,cmh\\_report&language=english](http://www3.who.int/whosis/cmh/cmh_report/report.cfm?path=cmh,cmh_report&language=english).

<sup>713</sup> International Monetary Fund, *The Poverty Reduction and Growth Facility (PRGF): A Factsheet* (April 2004). Available at: <http://www.imf.org/external/np/exr/facts/prgf.htm>.

<sup>714</sup> *Id.*

<sup>715</sup> Policy Development and Review Department, International Monetary Fund, *Role of the Fund in Low-Income Member Countries over the Medium Term – Issues Paper for Discussion*, July 21, 2003, at 3-4. Available at: <http://www.imf.org/external/np/pdr/sustain/2003/072103.pdf>.

<sup>716</sup> The close consultation between governments and the IMF and World Bank in preparing Poverty Reduction Strategy Papers (PRSPs) makes it unlikely that a PRSP will be rejected.

<sup>717</sup> See ActionAid USA & ActionAid Uganda (Rick Rowden & Jane Ocaya Irama), *Rethinking Participation: Questions for Civil Society about the Limits of Participation in PRSPs* (April 2004), at 21. Available at: [http://www.actionaidusa.org/images/rethinking\\_participation\\_april04.pdf](http://www.actionaidusa.org/images/rethinking_participation_april04.pdf).

<sup>718</sup> See World Bank Institute Human Development Group, Global HIV/AIDS Program, *A Concept Paper for the Belgian Cooperation: The Impact of Macroeconomic Policies on the Human Capacity to Deliver HIV/AIDS and Education Programs: A Multisectoral Policy Dialogue* (draft) (March 29, 2004).

<sup>719</sup> Policy Development and Review Department, International Monetary Fund, *Aligning the Poverty Reduction and Growth Facility (PRGF) and the Poverty Reduction Strategy Paper (PRSP) Approach: Issues and Options* (April 25, 2003), at para. 28.

<sup>720</sup> *Id.* at para. 27.

<sup>721</sup> See Foreign Operations, Export Financing, and Related Programs Appropriations, 2002, 107<sup>th</sup> Congress, Public Law 107-115 (2001), at sec. 582.

<sup>722</sup> The variability and unpredictability of aid can have harmful economic effects and making macroeconomic planning difficult. See Mick Foster & Keith Andrews, *The Case for Aid: Final Report to the Department for International Development, Volume 1: Main Report* (Dec. 2003), at 37-39. Available at: [http://www.dfid.gov.uk/Pubs/files/caseforaid\\_vol1.pdf](http://www.dfid.gov.uk/Pubs/files/caseforaid_vol1.pdf).



# VI. HUMAN RIGHTS AND THE HEALTH SECTOR'S HUMAN RESOURCE CRISIS

## African health professionals seek to escape widespread human rights violations

### Right to health

The right to health is guaranteed by article 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), which recognizes “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”<sup>723</sup> Most sub-Saharan African nations are party to the ICESCR.<sup>724</sup> In addition, the African Charter on Human and Peoples’ Rights recognizes the right to health. The African Charter provides that “Every individual shall have the right to enjoy the best attainable state of physical and mental health.” States party to this convention must “take the necessary measures to protect the health of their people and to ensure that they receive medical attention when they are sick.”<sup>725</sup>

The right to health cannot be fulfilled unless health professionals have the facilities, equipment, supplies, and other forms of infrastructure required to do their job.<sup>726</sup> Without such infrastructure, for example, explicit demands of the ICESCR cannot be met. These demands include preventing, treating, and controlling “epidemic, endemic, occupational and other diseases,” providing “for the reduction of the stillbirth-rate and of infant mortality and for the healthy development of the child,” and “assur[ing] to all medical service and medical attention in the event of sickness.”<sup>727</sup>

In 2000, the Committee on Economic, Social and Cultural Rights, which is charged with monitoring the ICESCR, adopted General Comment 14, in which the Committee elaborated on the meaning of the right to health.<sup>728</sup> General Comment 14 describes four “interrelated and essential elements” of the right, at least two of which precisely represent conditions that are unknown to many African health facilities. One, availability, requires that “functioning public health and health-care facilities, goods and services, as well as programmes . . . be available in sufficient quantity.” These facilities, goods, and services include “hospitals, clinics and other health-related buildings, trained medical and professional personnel receiving domestically competitive salaries, and essential drugs, as defined by the WHO Action Programme on Essential Drugs.”<sup>729</sup> Significantly, the essential drug list now includes anti-retroviral med-

ications,<sup>730</sup> making the availability of sufficient quantities of these drugs an essential element of the right to health. The widespread lack of essential drugs and necessary equipment is contrary to this aspect of the right to health.

Importantly, the Committee recognizes that health professionals are to receive “domestically competitive salaries,” a component of the right to health that is likely aimed at ensuring that sufficient numbers of people are attracted to (and remain in) the health professions. It may also be aimed at preventing public sector health professionals from diverting resources necessary for a functioning public health system, including drugs, supplies, and their own time, away from that system. Inadequate pay, which at times is not competitive with other professions and is frequently lower than salaries available at private health facilities is a significant factor in brain drain and poorly functioning health facilities.

A second element of the right to health is quality: “Health facilities, goods and services must . . . be scientifically and medically appropriate and of good quality. This requires, *inter alia* . . . skilled medical personnel, scientifically approved and unexpired drugs and hospital equipment . . .”<sup>731</sup> Along with expired drugs, equipment that is broken and facilities that lack a constant supply of clean water or electricity are not “of good quality.”

As with all human rights, states have the obligation to respect, protect, and fulfill the right to health.<sup>732</sup> A state party must “take steps . . . to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the” ICESCR.<sup>733</sup> The progressive realization requirement means that states “have a specific and continuing obligation to move as expeditiously and effectively as possible towards the full realization of article 12.”<sup>734</sup> A lack of resources may justify failing to meet the right to health obligations only if a state can demonstrate that it has made “every effort . . . to use all available resources at its disposal in order to satisfy, as a matter of priority,” its obligations.<sup>735</sup> If a state has not, if it has made “insufficient expenditure or misallocation of public resources which results in the non-enjoyment of the right to health by individuals or groups,” then it will have violated the right to health.<sup>736</sup> While a full analysis of which, if any, countries in sub-Saharan Africa meet this standard is

beyond the scope of this report, the fact that these countries often spend \$10 or less per capita on health care makes it doubtful that many meet this standard.<sup>737</sup>

States also have an absolute obligation to meet certain minimum core obligations,<sup>738</sup> without which the ICESCR “would be largely deprived of its *raison d’être*.”<sup>739</sup> These minimum core obligations include providing essential medicines,<sup>740</sup> and “obligations of comparable priority” such as ensuring access to reproductive, maternal, and child health care and “tak[ing] measures to prevent, treat and control epidemic and endemic diseases.”<sup>741</sup> These health activities all require that health professionals have the adequate equipment, supplies, and facilities.

It should be noted that in a literally unhealthy cycle, by helping drive away health professionals, these violations of the right to health contribute to the violation of the right to health issue that is the central focus of this report, the severe shortages of health professionals. Inadequate numbers of health professionals significantly interfere with health services, and thus people’s right to the highest attainable standard of health. This violation is most severe for those living in rural and other underserved areas.

#### *Right to safe working conditions*

Among the factors pushing African health professionals overseas is that they work in unsafe conditions, often lacking even such basic protective gear as gloves.<sup>742</sup> Health care environments where workers cannot adhere to simple infection control measures to protect themselves and their patients (measures known as universal precautions) violate their right to safe working conditions.

The ICESCR provides that as part of “the right of everyone to the enjoyment of just and favourable conditions of work,” people have a right to “safe and healthy working conditions.”<sup>743</sup> The Convention concerning Occupational Safety and Health and Working Environment (ILO No. 155), though itself ratified by only five sub-Saharan countries (Cape Verde, Ethiopia, Lesotho, Nigeria, and South Africa) and a handful of Latin American and Asian countries,<sup>744</sup> provides guidance for the “safe and healthy working conditions” requirement of the ICESCR. The central article of the Convention concerning Occupational Safety and Health, article 4, requires national policies on occupational safety, occupational health, and the working environment to aim “to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment.”<sup>745</sup> In the context of health care workers working in environments where they may be exposed to HIV, article 4 must

require, at the least, that universal precautions be followed to minimize risk of HIV infection. Given the basic nature of these precautions, requiring training and simple equipment such as gloves and puncture-proof containers, they easily fit within the category of “reasonably practicable.” Indeed, if these simple infection control measures were not required as part of the right to “safe and healthy working conditions,” this right would have very little meaning at all.

#### *Right to adequate standard of living and Right to education*

Violations of rights not directly related to health care also contribute to the exodus of health professionals from some African countries. They might live in countries that do not provide free primary education, as required by the ICESCR, or that have not made sufficient progress towards providing accessible secondary and higher education.<sup>746</sup> Or the health professionals’ salaries might be such that they cannot achieve “an adequate standard of living for [themselves and their] famil[ies], including adequate food, clothing and housing, and to the continuous improvement of living conditions.”<sup>747</sup>

#### **African countries have a human rights obligation to increase domestic health spending**

State obligations under the ICESCR require increased health spending from African countries. As the Committee on Economic, Social and Cultural Rights has explained, the question of whether a state is spending the “maximum of its available resources” is, essentially, whether the state uses “every effort . . . to use all available resources . . . in order to satisfy, as a matter of priority,” its obligations. This elucidation of the maximum resource requirement offers a sense of the high level of scrutiny of a state’s resource allocation that is required.<sup>748</sup>

Definitively determining whether a state is meeting this “maximum of its available resources” requirement would involve careful scrutiny of a state’s budget, economic circumstances, and so forth.<sup>749</sup> The more indicators that are developed to measure states’ compliance with the maximum resource obligation, the more it will be possible to measure a state’s compliance. Indicators might include comparisons of similarly situated states in their spending towards meeting economic, social, and cultural rights of similarly situated states, and ratios of military spending (and other items not related to economic, social, and cultural rights) to social spending.<sup>750</sup>

One way to evaluate whether a state is spending a maximum of available resources on health is by comparing a state’s actual health expenditure to what the state has pledged to spend on health. This approach is certainly not perfect. Politics might cause a leader to make a

pledge that proves impossible to meet,<sup>751</sup> or a government might simply consider its pledge to be aspirational, and again not necessarily feasible. By contrast, the amount pledged might be less than what is possible. State declarations do provide some insight, however, on what levels of spending will demonstrate that states are making every effort and are prioritizing their human rights obligations.

In April 2001 at a summit in Abuja, Nigeria, the heads of state and government of the members of the Organization of African Unity (now the African Union) pledged to devote 15% of their annual budgets to improving the health sector.<sup>752</sup> At the time of the pledge, several sub-Saharan countries had already met this target. In 2001, 15.2% of Chad's government expenditures were on health, as were 18.9% of Mozambique's. Countries including Zambia, Rwanda, and the Gambia were near the target at 13.5%, 14.2%, and 13.6%, respectively. Tanzania's health expenditures were 14.4% of total government expenditures in 1997, but had fallen to 12.1% by 2001, while Senegal's fell from 15% in 1998 to 12.9% – still higher than most African countries – in 2001. Zimbabwe spent 15.4% of its government budget on health in 1997, but only 8% in 2001. The health spending of some countries remains far below the 15% target. For example, in 2001, only 6.0% of Côte d'Ivoire's total government expenditures were on health, as were 4.5% of Eritrea's, 4.9% of Ethiopia's, 4.6% of Sudan's, and only 1.9% of Nigeria's.<sup>753</sup> If some of the continent's poorest countries can come close to or even meet the 15% target, it must be seriously questioned whether many countries that spend less on their health sectors are truly unable to spend more, or whether they are violating their obligations to make "every effort . . . to use all available resources at [their] disposal in order to satisfy, as a matter of priority," their obligations to use the maximum available resources to promote the highest attainable standard of health for their people. African countries should rapidly increase their health sector spending to at least 15% of their government budgets, in line with the Abuja Declaration.

### **Wealthy nations must provide more development assistance to developing countries**

#### *International assistance obligations*

Donor countries also have legal obligations to promote the highest attainable standard of health throughout the world, including in sub-Saharan Africa. They are legally obliged to help developing countries realize the right to health for all their people. This international legal obligation arises from the United Nations Charter and other treaties, most significantly the ICESCR.<sup>754</sup> The UN Charter obliges members to "take joint and separate action in co-operation with the Organization [the United

Nations]"<sup>755</sup> to promote "universal respect for, and observance of, human rights and fundamental freedoms" and to promote "solutions of international . . . health . . . problems. . . ."<sup>756</sup> The ICESCR requires parties to the treaty to take "steps, individually and *through international assistance and co-operation*, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights" in the Covenant,<sup>757</sup> including the right to the highest attainable standard of health.<sup>758</sup> The Committee on Economic, Social and Cultural Rights has confirmed that "depending on the availability of resources, States should facilitate access to essential health facilities, goods and services in other countries, wherever possible and provide the necessary aid when required."<sup>759</sup> States with resources available for international assistance will primarily be high-income countries, often referred to as donors. Since people cannot receive health services where there are too few health workers, this obligation requires donors to provide development assistance in the area of human resources for health.

States must provide the aid "when required," that is, when the other countries are unable or unwilling to make the investments necessary to enable its people to access health care. They must provide the aid "necessary" to facilitate access to health care. That definition must be read in light of the Committee's explanation of access, or accessibility, which is one of the "interrelated and essential elements" of the right to health. Accessibility includes ensuring that health facilities, goods, and services (as well as underlying determinants of health, such as a safe water supply) are within safe physical reach "for all sections of the population, especially vulnerable or marginalized groups," and that they are affordable for all.<sup>760</sup> Another of the "interrelated and essential elements" of the right to health is quality. The health facilities, goods, and services must be "be scientifically and medically appropriate and of good quality. This requires, *inter alia*, skilled medical personnel . . ."<sup>761</sup> Facilitating access, therefore, requires donors to provide the aid necessary to facilitate access of all people to quality medical care in countries that require such assistance.

To what degree must states facilitate this access? Since article 2 of the ICESCR does not distinguish between domestic and international obligations, it should be assumed that the progressive realization requirement ("with a view to achieving progressively the full realization of the rights") and the "maximum of . . . available resources" requirement both apply to donors. The Committee on Economic, Social and Cultural Rights has explained the progressive "move as expeditiously and effectively as possible towards that goal."<sup>762</sup> Donors must therefore provide substantial assistance towards

the goal of facilitating access to health care, for only substantial aid will enable expeditious and effective movement towards this goal. For wealthy nations, only substantial aid can meet the “maximum of its available resources” requirement.

Donors have a special obligation to provide assistance that will enable underserved populations to receive health care. This particular obligation stems from the fact that it is “particularly incumbent” on donors to assist states in fulfilling the core obligations.<sup>763</sup> One of the core obligations is “to ensure equitable distribution of all health facilities, goods and services.”<sup>764</sup> Meeting this obligation will require special measures and assistance to underserved populations, such as people living in rural areas, so that health facilities, goods, and services become more equitably distributed.

The obligation under the UN Charter is particularly relevant to the United States, which has signed but not ratified the ICESCR.<sup>765</sup> The Committee on Economic, Social and Cultural Rights has recognized that articles 55 and 56 of the UN Charter require states to cooperate to fulfill economic, social, and cultural rights. As the Committee observes, “In the absence of an active programme of international assistance and cooperation on the part of all those States that are in a position to undertake one, the full realization of economic, social and cultural rights will remain an unfulfilled aspiration in many countries.”<sup>766</sup>

This truth demonstrates the strength of the international assistance obligation under the UN Charter. Economic, social, and cultural rights can only be fulfilled with international assistance. Given the very high priority that the UN Charter places on fulfilling human rights – promoting human rights is central to one of the four purposes of the United Nations itself<sup>767</sup> – the cooperation that articles 55 and 56 requires must be of the sort that will enable meaningful progress towards achieving these rights. As the Committee on Economic, Social and Cultural Rights implies, this will require substantial international assistance. A level of assistance that is inadequate to enable the full realization of economic, social, and cultural rights is also inadequate to meet states’ obligation under the UN Charter.

The strength of this obligation can be seen from another perspective as well. All people have human rights, including the right to the highest attainable standard of health. They hold this right regardless of whether their own states are willing or able to take the steps necessary to fulfill this right. The only way for their rights to be fulfilled in such circumstances is through international assistance and cooperation. The international cooperation requirement, therefore, is an integral aspect of the human rights framework.

Article 56 prescribes that states’ joint and separate

action to achieve the purposes of article 55, including promoting universal human rights, shall be taken in cooperation with the United Nations. This provides guidance as to how much assistance is required under the UN Charter. In October 1970, the UN General Assembly set an official development assistance target of 0.7% of GNP. This target was established in the International Development Strategy for the Second United Nations Development Decade, which the General Assembly adopted unanimously,<sup>768</sup> and has since been frequently reaffirmed, including in Declaration of Commitment on HIV/AIDS, adopted at the UN General Assembly Special Session on HIV/AIDS.<sup>769</sup> Cooperating with the United Nations in promoting human rights therefore entails providing this level of assistance. In 2003, official development assistance was \$68.5 billion, or 0.25% of gross national income, little more than one-third the standard. Official development assistance in 2003 from the United States was \$15.8 billion, or 0.14% of gross national income, only one-fifth of the standard.<sup>770</sup>

The WHO Commission on Macroeconomics and Health estimated that to ensure everyone in the developing world essential interventions against infectious diseases and nutritional deficiencies, donor nations will have to spend an additional \$22 billion per year in development assistance by 2007, and \$31 billion per year by 2015.<sup>771</sup> These levels of funding also give a sense of the levels of international assistance required to meet donor state obligations. Note that this is assistance for health only, and would not represent the totality of states’ obligations under the ICESCR to provide international assistance to promote economic, social, and cultural rights. Since WHO is part of the UN system, and so providing these funds would be a form of cooperating with the United Nations, this could provide guidance on the required level of assistance. Another guide could be the funding required to meet the UN Millennium Development Goals. The World Bank has estimated that an additional \$40 to \$60 billion per year in aid is required to meet these goals.<sup>772</sup>

### **Human rights law places special focus on disadvantaged populations**

Human rights law strongly favors measures that protect the poor and other vulnerable populations. Under the ICESCR, the right to health requires states to take steps to create “conditions which would assure *to all* medical service and medical attention in the event of sickness.”<sup>773</sup> In elaborating on the right to health in its General Comment 14, the Committee on Economic, Social and Cultural Rights recognized a set of minimum core obligations, which include “ensur[ing] equitable distribution of all health facilities, goods and services.”<sup>774</sup> The

Committee has also recognized obligations comparable to the minimum core, including ensuring maternal and child health care and providing immunizations.<sup>775</sup> In these ways, the right to health is concerned with creating a baseline standard of health care for all. In practice, when health care in some parts of a country meets these standards and health care in other parts of the country fails to meet these standards, human rights law requires a focus on those areas that do not meet these standards – in other words, rural and other underserved areas.

General Comment 14 is quite explicit on the need to take special care to protect the rights of vulnerable populations. One minimum core obligation is “[t]o ensure the right of access to health facilities, goods and services on a non-discriminatory basis, *especially for vulnerable or marginalized groups*.”<sup>776</sup> The “interrelated and essential elements” of the right to health include accessibility, according to which “health facilities, goods and services must be accessible to all, especially the most vulnerable or marginalized sections of the population, in law and in fact. . . .”<sup>777</sup> Further, health goods and services must be “affordable for all, including socially disadvantaged groups,” with “equity demand[ing] that poorer households should not be disproportionately burdened with health expenses as compared to richer households.”<sup>778</sup> The requirements for physical accessibility give special attention to rural areas: “health facilities, goods and services must be within safe physical reach for all sections of the population, especially vulnerable or marginalized groups . . . . Accessibility also implies that medical services and underlying determinants of health . . . are within safe physical reach, including in rural areas.”<sup>779</sup>

A rights-based response to brain drain, therefore, will take special care to achieve at least minimum standards for all, which requires addressing the most severe shortage of health professionals within a country. This response should ensure that vulnerable and socially disadvantaged populations have access to health professionals.

### **Recruitment from developing countries absent agreement is highly suspect under human rights law**

Recruitment of health professionals by wealthy nations from poorer nations also raises serious questions under international human rights law. Human rights obligations fall into three categories: respecting human rights, which means not actively violating rights; protecting human rights, which means preventing third parties from violating rights, and; fulfilling human rights, which means taking affirmative steps to advance rights.<sup>780</sup>

Under the UN Charter’s command the countries take joint and separate actions to promote universal respect for human rights, and the ICESCR’s requirement that

states take steps through international cooperation and assistance to promote human rights, these requirements to respect, protect, and fulfill human rights apply to countries’ international activities. General Comment 14 of the Committee for Economic, Social and Cultural Rights makes this clear, both with respect to the ICESCR and as an important guide to the similar obligations under the UN Charter: “States parties have to respect the enjoyment of the right to health in other countries, and to prevent third parties from violating the right in other countries, if they are able to influence these third parties by way of legal or political means.”<sup>781</sup>

Recruitment from countries suffering severe shortages of health professionals significantly harms people’s right to health. When a government recruits from such countries, that government is failing to respect the human those countries’ residents. When private companies recruit from developing countries with a dearth of health professionals, they are interfering with the health care of people in those countries. Wealthy nations have the capacity to regulate these companies and prevent or manage this recruitment; they can “prevent third parties from violating the right in other countries.” They therefore have an obligation to do so.

### **Health professionals have a right to be free from racial discrimination**

Everyone has the right to be free from racial discrimination, which is defined by the International Convention on the Elimination of All Forms of Racial Discrimination as “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life.”<sup>782</sup> Discrimination on grounds of race or national origin is of particular note here. If high-income countries develop policies to limit immigration of African health professionals, the countries must be guided by this right of freedom from racial discrimination.

### **Obligation to train health workers to address major health concerns and promote equitable distribution of health services**

Governments are obliged to train health professionals to meet the needs of the people in their country. General Comment 14 of the Committee on Economic, Social and Cultural Rights includes “provid[ing] appropriate training for health personnel” as an obligation comparable to governments’ core obligations under the right to the highest attainable standard of health.<sup>783</sup> The imperative to provide “appropriate training” must be interpreted in

light of the overall right to the highest attainable standard of health. The state has a core obligation “[t]o adopt and implement a national public health strategy and plan of action . . . addressing the health concerns of the whole population.”<sup>784</sup> Appropriate training, therefore, will enable health professionals to help implement this plan, which will require that they be trained in the major health concerns of the population. They will also have to be trained in such areas as reproductive health and child health care, the state’s provision of which is comparable to the core obligations.<sup>785</sup> These are areas generally addressed as part of the primary health system, not in tertiary health centers.

In addition, a state is obligated “to take measures to

reduce the inequitable distribution of health facilities, goods and services.”<sup>786</sup> Appropriate training will tend to reduce the inequitable distribution of health services. Training could produce health professionals who are prepared to work in underserved areas, not just urban areas where tertiary facilities are located, and to meet the needs of the whole population, not only a privileged few who can access top-quality facilities. Staff must also be “trained to recognize and respond to the specific needs of vulnerable or marginalized groups,”<sup>787</sup> which again requires training that goes well beyond tools needed to practice in tertiary facilities.

## NOTES

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<sup>723</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 12.

<sup>724</sup> States party to the ICESCR include the following sub-Saharan nations: Angola, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d’Ivoire, the Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritius, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe. Liberia, Sao Tome and Principe, and South Africa have signed but not ratified the ICESCR. See Office of the United Nations High Commissioner for Human Rights, *Status of Ratifications of the Principal International Human Rights Treaties* (Nov. 2, 2003). Available at: <http://www.unhchr.ch/pdf/report.pdf>.

<sup>725</sup> *African [Banjul] Charter on Human and Peoples’ Rights*, adopted June 27, 1981, OAU Doc. CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982), *entered into force* Oct. 21, 1986, at art. 16. Fifty-three African nations are party to the African Charter. For ratification information, see University of Minnesota, Human Rights Library, *List of Countries Who Have Signed, Ratified/Adhered to the African Charter On Human And Peoples’ Rights (as of January 1, 2000)* (Jan. 2000). Available at:

<http://www1.umn.edu/humanrts/instree/ratz1afchr.htm>.

<sup>726</sup> While these physical forms of infrastructure are critical components of the right to health, this right is far broader than what one might (or might not) find in the confines of a health facility. “[T]he reference in article 12.1 of the [ICESCR] to ‘the highest attainable standard of physical and mental health’ is not confined to the right to health care. On the contrary, the drafting history and the express wording of article 12.2 acknowledge that the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment.” Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 4.

<sup>727</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 12(2).

<sup>728</sup> The ICESCR charges the Economic and Social Council (ECOSOC) of the United Nations with monitoring compliance with the ICESCR. See International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976,

at arts. 16-22. ECOSOC, in turn, created the Committee on Economic, Social and Cultural Rights to monitor the ICESCR. In 1989, the Committee began issuing general comments on the rights and provisions in the ICESCR “to provide greater interpretative clarity as to the intent, meaning and content of the Covenant,” as well as to promote implementation of the ICESCR. Office of the High Commissioner for Human Rights, *Fact Sheet No.16 (Rev.1), The Committee on Economic, Social and Cultural Rights* (July 1991). Available at: <http://193.194.138.190/html/menu6/2/fs16.htm#6>.

<sup>729</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 12(b).

<sup>730</sup> See World Health Organization, *WHO Model List of Essential Medicines*, <http://mednet3.who.int/Eml/modellist.asp>. Accessed May 24, 2004 (listing 11 anti-retroviral medications).

<sup>731</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 12(b). The fourth element is acceptability, meaning that “[a]ll health facilities, goods and services must be respectful of medical ethics and culturally appropriate” and must be “designed to respect confidentiality and improve the health status of those concerned.” *Id.*

<sup>732</sup> “The obligation to *respect* requires States to refrain from interfering directly or indirectly with the enjoyment of the right to health. The obligation to *protect* requires States to take measures that prevent third parties from interfering with article 12 guarantees. Finally, the obligation to *fulfill* requires States to adopt appropriate legislative, administrative, budgetary, judicial, promotional and other measures towards the full realization of the right to health.” Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 33.

<sup>733</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 2(1).

<sup>734</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 31.

<sup>735</sup> *Id.* at para. 47. The very similar wording on the maximum resource requirement for non-core obligations in General Comment 14 to the wording of the resource requirement for core obligations in General Comment 3 also suggests that the law on core obligations has evolved since the Committee issued General Comment 3.

<sup>736</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 51. A state also violates the right to health if it fails “to take measures to reduce the inequitable distribution of health facilities.” *Id.*

<sup>737</sup> The resources to which the ICESCR refers are not only financial resources. For an excellent analysis of the maximum available resources obligation, see Robert E. Robertson, “Measuring State Compliance with the Obligation to Devote the ‘Maximum Available Resources’ to Realizing Economic, Social, and Cultural Rights.” *Human Rights Quarterly* (1994) 16: 693-714.

<sup>738</sup> The law is ambiguous as to whether resource constraints can ever excuse a state from meeting its minimum core obligations. General Comment 14 states that “a State party cannot, *under any circumstances whatsoever*, justify its non-compliance with the core obligations [for the right to the highest attainable standard of health] which are *non-derogable*.” Committee on Economic, Social and Cultural

Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 47 (emphasis added). Several years earlier, in its General Comment 3, the Committee on Economic, Social and Cultural Rights, on the nature of state obligations under the ICESCR, explained that resource constraints may excuse a state from failing to meet its minimum core obligation, but only if states “demonstrate that *every effort* has been made to use *all resources* that are at its disposition in an effort to satisfy, *as a matter of priority*, those minimum obligations.” Committee on Economic, Social and Cultural Rights, *General Comment 3, The nature of States parties obligations* (Art. 2, para.1 of the Covenant) (Fifth session, 1990), *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, U.N. Doc. HRI/GEN/1/Rev.1 at 45 (1994), at para. 10 (emphasis added). Since General Comment 14 is both more recent and specific to the right to health, it may be regarded as a better statement of current law. The 1997 interpretation of core obligations contained in the Maastricht Guidelines on Violations of Economic, Social and Cultural Rights also takes the position that core obligations are non-derogable: as “confirmed by the developing jurisprudence of the Committee on Economic, Social and Cultural Rights, minimum core obligations apply irrespective of the availability of resources of the country concerned or any other factors and difficulties.” *Maastricht Guidelines on Violations of Economic, Social and Cultural Rights*, Jan. 22-26, 1997, Maastricht, the Netherlands, at para. 9. Available at: <http://shr.aaas.org/thesaurus/instrument.php?insid=95>. (These are non-binding but authoritative Guidelines were unanimously agreed upon by a group of more than 30 international law experts who met in Maastricht, the Netherlands.)

High levels of (for example) military spending and health sector funding allocation that favors tertiary care suggest that in many if not all cases, poor countries could meet the minimum core obligations if they prioritize these obligations, as they are required to do. If, however, some states are genuinely unable to fulfill the core obligations, the existence of minimum core obligations can nevertheless be reconciled with the notion that it would be unreasonable to impose obligations upon states that they truly cannot fulfill. The impulse underlying minimum core obligations is that if the ICESCR did not establish an absolute requirement to meet people’s most basic needs, the Covenant “would be largely deprived of its *raison d’être*.” What is critical to human dignity, however, is not that any particular state ensures that these core obligations are met, but rather that they are met, regardless of who provides the resources to meet them. As discussed more below, under both the UN Charter and the ICESCR, relatively wealthy nations must provide international assistance. They could ensure that the core obligations are fulfilled even in countries that genuinely cannot, using only their own resources, meet the minimum core obligations (if there are such countries). In such a case, the responsibility for meeting these core obligations would fall on both the impoverished country and the international community.

<sup>739</sup> Committee on Economic, Social and Cultural Rights, *General Comment 3, The nature of States parties obligations* (Art. 2, para.1 of the Covenant) (Fifth session, 1990), *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, U.N. Doc. HRI/GEN/1/Rev.1 at 45 (1994), at para. 10.

<sup>740</sup> See Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 43.

<sup>741</sup> *Id.* at para. 44.

<sup>742</sup> For examples, see Physicians for Human Rights, *HIV Transmission in Health Care Settings: A White Paper by Physicians for Human Rights* (March 27, 2003), at 48-49. Available at: [http://www.phrusa.org/campaigns/aids/who\\_031303.html](http://www.phrusa.org/campaigns/aids/who_031303.html).

<sup>743</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 7(b).

<sup>744</sup> See International Labour Organization, *Convention No. 155 was ratified by 39 countries*, <http://ilolex.ilo.ch:1567/cgi-lex/ratifce.pl?C155>. Accessed March 6, 2003.

<sup>745</sup> *Convention concerning Occupational Safety and Health Convention and the Working Environment (ILO No. 155)*, 1331 U.N.T.S. 279, *entered into force* Aug. 11, 1983, at art. 4.

<sup>746</sup> See International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 13.

<sup>747</sup> *Id.* at art. 11.

<sup>748</sup> The resources in question are not limited to economic resources. An assessment by one commentator suggests that the resources to be considered are financial, natural, human, technological, and information. See Robert E. Robertson, “Measuring State Compliance with the Obligation to Devote the ‘Maximum Available Resources’ to Realizing Economic, Social, and Cultural Rights.” *Human Rights Quarterly* (1994) 16: 693-714.

<sup>749</sup> In some circumstances, though, it could be easy to determine whether a state is meeting this requirement. For example, if a state fails to spend the resources allocated to the health sector in the budget, then clearly it is not devoting “the maximum of its available resources” to meeting its ICESCR obligations. Or if a state spends millions of dollars on something with no connection to human rights (a presidential palace, for example) or that is detrimental to human rights (secret police that engage in torture and extrajudicial killings, for example), that state would not be making “every effort” to fulfill its ICESCR obligations. High levels of military spending for countries that have not fully realized their economic and social rights obligations would also raise a red flag as to whether a state is making every effort to meet these obligations. See, e.g., United Nations Development Programme, *Human Development Report 1990*, 1990, at 4. Reprinted in: Henry J. Steiner & Philip Alston, *International Human Rights in Context* (1996), at 290 (“Most budgets can . . . accommodate additional spending on human development by reorienting national priorities . . . Special attention should go to reducing military spending in the Third World . . . Developing countries as a group spend more on the military (5.5% of their combined GNP) than on education and health (5.3%)”).

<sup>750</sup> See Robert E. Robertson, “Measuring State Compliance with the Obligation to Devote the ‘Maximum Available Resources’ to Realizing Economic, Social, and Cultural Rights.” *Human Rights Quarterly* (1994) 16: 693-714, at 709-712.

<sup>751</sup> Since the question is one of maximum available resource, the issue is one of feasibility – whether the resources really are available – and not whether a government intends to abide by the pledge.

<sup>752</sup> See *Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases*, Organization of African Unity summit, adopted April 27, 2001, Abuja, Nigeria, at para. 26. Available at: <http://www.uneca.org/adf2000/Abuja%20Declaration.htm>.

<sup>753</sup> See World Health Organization, *World Health Report 2002* (Oct. 2002), at 203-209. Available at: [http://www.who.int/whr/2002/whr2002\\_annex5.pdf](http://www.who.int/whr/2002/whr2002_annex5.pdf).

<sup>754</sup> The Convention on the Rights of the Child also refers to the need for international cooperation, though the obligation for states to pro-

vide that cooperation is less explicit than in the UN Charter or the ICESCR. See *Convention on the Rights of the Child*, G.A. res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), *entered into force* Sept. 2, 1990, at art. 4. (“With regard to economic, social and cultural rights, States Parties shall undertake such measures to the maximum extent of their available resources and, where needed, within the framework of international co-operation”).

<sup>755</sup> UN Charter, art. 56.

<sup>756</sup> *Id.* at art. 55.

<sup>757</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, *entered into force* Jan. 3, 1976, at art. 2(1) (emphasis added).

<sup>758</sup> See *id.* at art. 12.

<sup>759</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 39.

<sup>760</sup> *Id.* at para. 12(b).

<sup>761</sup> *Id.* at para. 12(d).

<sup>762</sup> Committee on Economic, Social and Cultural Rights, *General Comment 3, The nature of States parties obligations (Art. 2, para.1 of the Covenant)* (Fifth session, 1990), Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.1 at 45 (1994), at para. 9.

<sup>763</sup> Committee on Economic, Social and Cultural Rights, *General Comment 14, The right to the highest attainable standard of health*, U.N. Doc. E/C.12/2000/4 (2000), at para. 45.

<sup>764</sup> *Id.* at para. 43(e).

<sup>765</sup> See Office of the United Nations High Commissioner for Human Rights, *Status of Ratifications of the Principal International Human Rights Treaties* (Nov. 2, 2003). Available at: <http://www.unhchr.ch/pdf/report.pdf>.

<sup>766</sup> Committee on Economic, Social and Cultural Rights, *General Comment 3, The nature of States parties obligations (Art. 2, para.1 of the Covenant)* (Fifth session, 1990), Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.1 at 45 (1994), at para. 14.

<sup>767</sup> See UN Charter, art. 1(3).

<sup>768</sup> The General Assembly unanimously adopted Resolution 2626 on October 24, 1970. Paragraph 43 set the 0.7% GNP target. See Development Research and Policy Analysis Division, United Nations Economic and Social Commission for Asia and the Pacific, *Economic and Social Survey of Asia and the Pacific, 2001*, 2001, at 236, n. 1. Available at: [http://www.unescap.org/drpad/publication/survey2001/chap7\\_2.pdf](http://www.unescap.org/drpad/publication/survey2001/chap7_2.pdf).

<sup>769</sup> See *Declaration of Commitment on HIV/AIDS*, United Nations General Assembly Special Session on HIV/AIDS (UNGASS), adopted June 27, 2001, at para. 83. Available at: <http://www.un.org/ga/aids/coverage/FinalDeclarationHIVAIDS.html>.

<sup>770</sup> See Organisation for Economic Cooperation and Development, *Modest Increase in Development Aid in 2003* (April 16, 2004). Available at: [http://www.oecd.org/document/22/0,2340,en\\_2649\\_37413\\_31504022\\_1\\_1\\_1\\_37413,00.html](http://www.oecd.org/document/22/0,2340,en_2649_37413_31504022_1_1_1_37413,00.html).

<sup>771</sup> See Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development*, Dec. 2001, at 22, 92. Available at: <http://www.cid.harvard.edu/cidcmh/>

CMHReport.pdf.

<sup>772</sup> See World Bank press release, World Bank Estimates Cost of Reaching the Millennium Development Goals at \$40-60 Billion Annually in Additional Aid (Feb. 20, 2002). Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20034427~menuPK:344463~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.

<sup>773</sup> International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force Jan. 3, 1976, at art. 12(2)(d) (emphasis added).

<sup>774</sup> Committee on Economic, Social and Cultural Rights, General Comment 14, The right to the highest attainable standard of health, U.N. Doc. E/C.12/2000/4 (2000), at para. 43.

<sup>775</sup> See *id.* at para. 44.

<sup>776</sup> *Id.* at para. 43 (emphasis added).

<sup>777</sup> *Id.* at para. 12(b).

<sup>778</sup> *Id.*

<sup>779</sup> *Id.*

<sup>780</sup> See *id.* at para. 34-37.

<sup>781</sup> *Id.* at para. 39.

<sup>782</sup> International Convention on the Elimination of All Forms of Racial Discrimination, G.A. res. 2106 (XX), Annex, 20 U.N. GAOR Supp.

(No. 14) at 47, U.N. Doc. A/6014 (1966), 660 U.N.T.S. 195, entered into force Jan. 4, 1969, at art 1(1). See also International Covenant on Economic, Social and Cultural Rights, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force Jan. 3, 1976, at art. 2(2); International Covenant on Civil and Political Rights, G.A. res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force Mar. 23, 1976, at art. 2(1).

<sup>783</sup> Committee on Economic, Social and Cultural Rights, General Comment 14, The right to the highest attainable standard of health, U.N. Doc. E/C.12/2000/4 (2000), at para. 44(e).

<sup>784</sup> *Id.* at para. 43(f).

<sup>785</sup> See *id.* at para. 44(a).

<sup>786</sup> *Id.* at para. 52.

<sup>787</sup> *Id.* at para. 37.



## VII. CONCLUSION

There are still important details to learn about brain drain and the health sector human resource crisis in Africa. What are the most important causes of brain drain in Namibia or Swaziland? How high does remuneration need to be to help recruit and retain health professionals, and what is the best form of that remuneration? Will South Africa's certificate of need promote more equal access to health services, or will it speed brain drain of angry doctors out of South Africa? How significant a role will community health workers be able to play?

But much is clear. Brain drain is happening, and for nurses, the backbone of health care in Africa, it is accelerating. Distribution of health personnel within African countries – and to a lesser extent, high-income countries as well – is highly inequitable, with rural areas in particular suffering from a huge deficit in services. The effects of this crisis are already being felt throughout Africa, whether for the patient who travels to a rural clinic only to find no skilled health workers to attend to her, or for the hospital in Eastern Cape, South Africa, that is unable to provide more than minimal AIDS treatment services

because it has too few doctors. 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.

Further, even if some important details need to be subjected to further examination, the basic elements of building human resources for health are now well-known. They include increased salaries and investment in physical health infrastructure and infection control, an end to ceilings on health sector spending and freezes on hiring and payment for health professionals, and efforts by high-income countries to meet their health needs through domestically trained health workers.

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 the one hand, and poor people and poor countries on the other, then Africa and the world will overcome this deepening disaster. Enough is known about the problems to demand a solution. Enough is known about solutions to demand action.