



Milbank Memorial Fund

# Health Worker Shortages and Global Justice

---

*by Paula O'Brien and Lawrence O. Gostin*



# Health Worker Shortages and Global Justice

---

*by Paula O'Brien and Lawrence O. Gostin*

Milbank Memorial Fund

Milbank Memorial Fund  
645 Madison Avenue  
New York, NY 10022  
[www.milbank.org](http://www.milbank.org)

The Milbank Memorial Fund is an endowed operating foundation that engages in nonpartisan analysis, study, research, and communication on significant issues in health policy. In the Fund's own publications, in reports, films, or books it publishes with other organizations, and in articles it commissions for publication by other organizations, the Fund endeavors to maintain the highest standards for accuracy and fairness. Statements by individual authors, however, do not necessarily reflect opinions or factual determinations of the Fund.

©2011 Milbank Memorial Fund. All rights reserved. This publication may be redistributed electronically, digitally, or in print for noncommercial purposes only as long as it remains wholly intact, including this copyright notice and disclaimer.  
ISBN 978-1-887748-74-2

**TABLE OF CONTENTS**

List of Table and Figures .....	iv
Foreword .....	v
Acknowledgments .....	vi
Chapter 1: The Global Health Worker Crisis—Executive Summary .....	1
Chapter 2: The Global Shortage of Health Workers .....	8
Chapter 3: The Global Health Worker Shortage—Causes .....	19
Chapter 4: Toward a US Policy on the Global Health Workforce Shortage—Rights, Interests, and Obligations .....	43
Chapter 5: US Policy on the Global Human Resource Shortage—Recommendations for Action .....	52
Notes .....	70
Bibliography .....	89
About the Authors .....	105
Selected Publications of the Milbank Memorial Fund .....	106

**LIST OF TABLE AND FIGURES**

**TABLE**

1 Estimated Critical Shortages of Doctors, Nurses, and Midwives by WHO Region .....15

**FIGURES**

1 Health Worker Shortages ..... 10

2 Health Workers Save Lives! ..... 11

3 Population Density of Health Care Professionals Required to  
Ensure Skilled Attendance at Births ..... 12

4 Countries with a Critical Shortage of Health Service Providers  
(Doctors, Nurses, and Midwives) ..... 14

5 Distribution of Health Workers by Level of Health Expenditure and  
Burden of Disease by WHO Region ..... 17

6 Drivers of Increased Demand for Health Workers ..... 19

7 Relationship between Lack of Policy of National Self-Sufficiency and  
the Global Health Workforce Shortage ..... 25

8 Workplace Factors That Contribute to Attrition from the Health Workforce ..... 33

9 Share of Foreign-Born among Practicing Doctors, Dentists, and  
Pharmacists in Selected OECD Countries, Circa 2000 ..... 37

10 “Push” and “Pull” Factors That May Influence Health Workers’ Decision  
to Migrate from Their Country of Origin for Employment in a New Country ..... 40

## FOREWORD

Most countries of the world have a stated commitment to improving the health of their inhabitants. However, there are enormous challenges in attaining that goal, and some states have not devoted the planning and resources needed for success. For a functioning health system to work, having the appropriate mix of skilled health care workers is fundamental. But what we are experiencing now is a global health worker shortage of staggering proportions. Without adequate numbers of trained and employed health workers, people cannot access the care they need, particularly the global poor. The causes of the shortage are complex, with some being “homegrown” due to poor planning, financing, and policy, but a significant contributor is the reliance of developed countries on foreign-trained health workers to meet their workforce needs.

The World Health Organization estimates that there is a shortage of about four million health workers needed to deliver essential health services, and has called for immediate action to resolve the accelerating crisis in the global health workforce. This report grew out of a concern that much more needs to be done by wealthy countries to respond to this challenge. The clarion call by authors Paula O’Brien and Lawrence O. Gostin in this report is that every country and all stakeholders must be deeply engaged to solve the global human resource shortage. While acknowledging the interrelationships among the various components, the authors direct their recommendations to the United States because of its unique leadership capacity. They offer seven recommendations to the US government to address the global health worker shortage, including building its own workforce with a focus on self-sufficiency and task shifting, collaborating with the international community, and reforming its global health assistance programs to help developing countries educate and retain their own workers. Such initiatives will have clear benefits for all Americans and others around the world.

Health care administrators, consultants, academicians, practitioners, and policymakers from many nations met twice in face-to-face meetings to assist the authors in the design and content of the report. These participants and other constituents of the Milbank Memorial Fund reviewed successive drafts of this report. The information and recommendations in this report are timely and vital for policymakers at the national and global level. We thank all who participated in this project, which promises to offer fresh, innovative ideas for the strengthening of health systems.

Carmen Hooker Odom  
President

Samuel L. Milbank  
Chairman

## ACKNOWLEDGMENTS

The following persons participated in planning meetings for and/or reviewed draft versions of this report. They are listed in the positions they held at the time of their participation.

Virginia Alinsao, Director of International Nursing Recruitment, Johns Hopkins Health System; Maggie Anderson, Director, Medical Services, North Dakota Department of Human Services; Constance M. Baker, Former Dean and Professor, Indiana University School of Nursing; Mark Barnes, Chair, University PEPFAR Oversight Committee, and Director and Chief Research Compliance Officer, Office of Sponsored Programs, Harvard University; Heidi Behforouz, Assistant Professor, Harvard Medical School, and Director, Prevention and Access to Care and Treatment, Brigham and Women's Hospital; Emily Bell, Head of Advocacy and Communications, Touch Foundation, Inc.; Solomon R. Benatar, Emeritus Professor of Medicine, and Director, Bioethics Centre, University of Cape Town; Peter I. Buerhaus, Valere Potter Professor of Nursing, and Director, Center for Interdisciplinary Health Workforce Studies, Institute for Medicine and Public Health, Vanderbilt University Medical Center; Oscar A. Cabrera, Deputy Director, O'Neill Institute for National and Global Health Law, Georgetown University; Peggy Clark, Executive Director, Global Health and Development, and Vice President, Policy Programs, The Aspen Institute; Jeffrey Collmann, Director, Center for Disease Prevention and Health Outcomes, and Associate Professor, School of Nursing and Health Studies, O'Neill Institute for National and Global Health Law, Georgetown University; Susan Cooper, Commissioner, Tennessee Department of Health; Ibadat S. Dhillon, Associate Director, Health Workforce Realizing Rights: The Ethical Globalization Initiative, The Aspen Institute; Peter D. Donnelly, Professor of Public Health Medicine, University of St. Andrews School of Medicine; James F. Dwyer, Assistant Professor, Bioethics and Humanities, SUNY Upstate Medical University; Charlene Frizzera, Acting Administrator, Centers for Medicare and Medicaid Services, US Department of Health and Human Services; Alexia Green, Professor and Dean Emeritus, Texas Tech University Health Sciences Center School of Nursing; Thomas E. Harvey; Janet Heinrich, Associate Administrator, Bureau of Health Professions, Health Resources and Services Administration, US Department of Health and Human Services; Christina M. Helden, Fellow, O'Neill Institute for National and Global Health Law, Georgetown University; Howard H. Hiatt, Professor of Medicine, Harvard Medical School, Division of Global Health Equity, Brigham and Women's Hospital; Bette Jacobs, Dean and Professor, School of Nursing and Health Studies, Georgetown University; Heidi V. Jiménez, Chief Legal Counsel, Pan American Health Organization; Clarion E. Johnson, Medical Director, Global Medicine and Occupational Health, Exxon Mobil Corporation; Patrick W. Kelley, Director, Boards on Global Health and African Science Academy Development, Institute of Medicine; Laetitia J. King, Director, Kedibone Health Systems Consultants; Byron L. Knief, Managing Director, Court Square Advisor, LLC; Christopher Kurowski, Sector Leader, Human Development, The World Bank; Ilta Lange, Director, WHO Collaborating Centre for Primary Health Care, and Professor, School of Nursing, Pontificia Universidad Católica de Chile; Kathryn A. Leonhardy, Assistant Professor, Georgetown University School of Nursing and

Health Studies; Ita Lynch, Health Advisor, Realizing Rights: The Ethical Globalization Initiative; Beverly Malone, Chief Executive Officer, National League for Nursing; Silvina Malvárez, Regional Advisor on Nursing and Allied Health Personnel Development, and Health Workforce Migration Specialist, Pan American Health Organization; Rosario-May P. Mayor, Director of Performance Improvement/QM, US Department of Veterans Affairs; Beverly J. McElmurry, Professor and Associate Dean, Global Health Leadership, College of Nursing, University of Illinois at Chicago; Benn McGrady, Postdoctoral Fellow, O'Neill Institute for National and Global Health Law, Georgetown University; Clémence Merçay, Assistante-doctorante, Université de Neuchâtel; Emily Mok, Law Fellow, O'Neill Institute for National and Global Health Law, Georgetown University; John T. Monahan, Counselor to the Secretary, and Interim Director, Office of Global Health Affairs, US Department of Health and Human Services; Fitzhugh Mullan, Murdock Head Professor of Medicine and Health Policy, Department of Health Policy, The George Washington University; Kerry Paige Nessler, Assistant Surgeon General, and Director, Office of Global Health Affairs, Health Resources and Services Administration, US Department of Health and Human Services; Barbara L. Nichols, Chief Executive Officer, Commission on Graduates of Foreign Nursing Schools International; John T. Nilson, Member of the Legislative Assembly, Province of Saskatchewan; Angus O'Shea, Executive Director, Touch Foundation, Inc.; Cheryl A. Peterson, Director, Department of Nursing Practice and Policy, American Nurses Association; Robert L. Phillips, Jr., Director, The Robert Graham Center; Patricia Pittman, Executive Vice President, AcademyHealth; David B. Pryor, Chief Medical Officer, Ascension Health; Susan C. Reinhard, Senior Vice President, Public Policy Institute, AARP; Reynaldo R. Rivera, President-Elect, Philippine Nurses Association of America, and Director of Nursing, Special Programs, Department of Nursing, New York Presbyterian Hospital/Weill Cornell Medical Center; Russell G. Robertson, Professor and Chair, Department of Family and Community Medicine, Northwestern University Feinberg School of Medicine; Martha F. Rogers, Director, Lillian Carter Center for International Nursing, Emory University, and Director, Center for Child Well-being, The Task Force for Global Health; Marla E. Salmon, Dean, University of Washington School of Nursing; Sarah Scheening, Health Workforce and Systems Advisor, Office of Health, Infectious Diseases, and Nutrition, US Agency for International Development; Ron Sconyers, President and Chief Executive Officer, Physicians for Peace; Weixing Shen, Deputy Dean, School of Law, Tsinghua University; Gaudenz Silberschmidt, Visiting Fellow, Global Health Policy Center, The Center for Strategic and International Studies; James R. Silkenat, Director, World Justice Project, and Partner, Sullivan & Worcester, LLP; Patricia M. Simone, Director, Division of Global Public Health Capacity Development, Center for Global Health, Centers for Disease Control and Prevention; Allyn L. Taylor, Visiting Professor of Law, Georgetown University Law Center; Marko Vujicic, Senior Economist, Human Development Network, The World Bank; Lee Wells, Director, External Affairs, Touch Foundation, Inc.; Gangling Xue, Dean, Law School, China University of Political Science and Law; Pascal Zurn, Health Economist, Department of Human Resources for Health, World Health Organization.

Above all, Carmen Hooker Odom, President of the Milbank Memorial Fund, and Mark Rosenberg, President and Chief Executive Officer of the Task Force for Global Health, provided invaluable strategic insight throughout. The authors are deeply grateful for their friendship and leadership.

**CHAPTER 1: THE GLOBAL HEALTH WORKER CRISIS—  
EXECUTIVE SUMMARY**

The world is experiencing a serious human resource shortage in the health sector, which the World Health Assembly calls “a crisis in health.” The World Health Organization (WHO) estimates that 4.3 million more health workers are required to meet the health Millennium Development Goals (MDGs)—a global compact to reduce child mortality, improve maternal health, and combat AIDS, malaria, and other diseases by 2015. But even this alarmingly high figure significantly underestimates the global need for human resources because the WHO only accounts for shortages in 57 countries that miss the minimalist target of 2.28 doctors, nurses, and midwives per 1,000 in the population. These 57 countries have “critical shortages,” but the WHO estimate does not take into account the shortages of health workers experienced in countries who provide services in excess of basic immunizations and childbirth attendance. The agency does not factor in the shortages that emerging and developed countries claim to be experiencing. Nor does it factor in the marked human resource disparities among countries and regions, which reveal that shortages in low-income countries are actually much worse.

The global human resource shortage is certainly much greater than 4.3 million health workers. And the shortage includes more than physicians and nurses—extending to health workers across the spectrum, including pharmacists, dentists, laboratory technicians, emergency medical personnel, public health specialists, health sector management, and administrative staff.

The human resource crisis affects developed and developing countries, but the global poor suffer disproportionately, not only because they have a much smaller workforce but also because their needs are so much greater. Of the 57 countries with critical shortages, 36 are in Africa. Africa has 25% of the world’s disease burden, but only 3% of the world’s health workers and 1% of the economic resources. In particular, there is an extreme imbalance in the distribution of the estimated 12 million working nurses worldwide: the nurse-to-population ratio is 10 times higher in Europe than in Africa or Southeast Asia, and 10 times higher in North America than in South America.

These sterile numbers mask the real human tragedy of health personnel shortages. Where there are vastly inadequate numbers of health workers trained and employed, people cannot enjoy the good health that will enable them to flourish. They have fewer opportunities to prevent and treat injuries and diseases or to relieve pain and suffering when they are sick or dying. According to the WHO, in many poor countries, the lack of health workers is a major factor in the deaths of large numbers of individuals who would survive if they had access to health care.<sup>1</sup>

The WHO asserts that health workforce shortages have replaced system financing as “the most serious obstacle” to realizing the right to health within countries.<sup>2</sup> Certainly, health workforce capacity building should not be the sole focus of national and international efforts to improve health. There are numerous competing health agendas, including financing and universal coverage,<sup>3</sup> as well as meeting “basic survival needs,” including food, clean water, sanitation and sewerage, vector control, and tobacco control.<sup>4</sup> Yet, most health services cannot be assured in the absence of trained health workers. There is little point, for example, in delivering containers of drugs and medical equipment to a country if there are no skilled professionals to deliver these goods to the people who need them.

The causes of the human resource shortages are multifaceted and complex, but not so complex that they cannot be understood and acted upon. The factors that produce health workforce shortages are not the same in all countries or in all parts of countries. In designing solutions, policymakers must take account of local causes and conditions. However, some factors are common across cultures, even if their local manifestation may vary. For example, in most countries with shortages, there is inadequate funding of health worker education and training.

Some of the causes of local health workforce shortages are “homegrown” due to inadequate planning, financing, and policy. However, local shortages can also be caused or exacerbated by conditions in other countries. One country’s domestic and foreign policies can significantly affect health worker shortages in other countries. These policy choices are often made without regard for the potential negative impacts on the health workforce in other countries. Governments may not intend to cause harm outside their borders, but public officials may either be unaware of the effects or simply too focused on domestic political concerns. Developed countries, for example, often rely significantly on foreign-trained health workers to staff their health systems. These developed countries do, or ought to, know that many workers come from countries that desperately need more health professionals themselves.

In this report, we make the case for the United States government to seriously address the problem of the global human resource shortage, particularly in the most disadvantaged countries. The United States has an important role to play in addressing this shortage, as do many other rich countries. By focusing on the United States, we are not suggesting that the United States bears responsibility for the current problem. As we discuss in the report, there are many factors that contribute to the shortage, and the practices in many countries have a profound impact on the global shortage of health workers.

Nevertheless, the United States is well-placed to play a critical leadership role for several reasons. First, an effective response to the worldwide human resource shortage requires global cooperation, in combination with international, national, and local initiatives. Each country must make a contribution to solving this difficult and entrenched problem by examining the domestic and international actions it can take to reverse it. With its global leadership status, the United States can, by its response, become a model for other developed countries.

Second, the United States is a contributor to the global workforce shortage but also has the capacity to make a significant difference in addressing it. The United States has not demonstrated a commitment to pursue a policy of national self-sufficiency (or at least a high level of self-sufficiency) in the production of local health workers. Because of its failure to plan for the education of American health workers, the United States relies on large numbers of migrant health workers to keep its health system fully operational. The United States, as well as Western Europe and other highly developed regions, has become a magnet for foreign-educated physicians and nurses. Although the United States absorbs the largest numbers of foreign-born doctors and nurses in absolute terms, there are many rich countries that, in relative terms, are much more reliant on migrant health workers. Countries like

Canada, the United Kingdom, Australia, and New Zealand all have higher levels of relative reliance on foreign-born doctors and nurses than the United States. Nevertheless, these data suggest that all rich countries, whether their use of migrant health workers is more or less, in relative or absolute terms, must recognize their role in the shortage and take remedial steps as a matter of urgency.

Third, the current policy environment in the United States presents the opportunity for the government to make major commitments to the global health worker shortage. Successful implementation of the Affordable Care Act, which will extend insurance coverage to an additional 30 million people, requires an expanded workforce. Delivering health services to these people requires rethinking the United States' approach to health workforce creation and retention. The United States need not necessarily train ever-increasing numbers of health workers. Rather, it is the right moment to reconstitute its health workforce composition, determining the best mix of health workers needed to keep Americans well and care for those who are sick.

The current US policy context also includes an overhaul of the United States' global health assistance program, known as the Global Health Initiative (GHI). The changes promised by the GHI also suggest that it is time to focus on the global workforce shortage. This focus would fit well with the GHI's core principle of integration across government agencies. It would also be entirely consistent with the "basic health needs" approach that advocates are urging. Such a revision of US global health policy would signal a shift from a disease-specific orientation towards a concern with whole communities having the basic goods and services they need to stay healthy.

Recognizing the moral responsibility and capacity of the United States to make a difference, we offer seven recommendations. We understand that public officials have to make difficult trade-offs among a range of policies and resource allocations. We have selected policy interventions, which, to the greatest extent possible, are supported by evidence or have been shown to be effective through experience. We also acknowledge that there is a need for more high-quality research into the effectiveness of programs and activities.

In formulating these seven recommendations, we consider the scope of the global shortage (chapter 2) and address the underlying causes (chapter 3). We also craft solutions that take into account and carefully balance the rights, interests, and obligations of major stakeholders. We analyze in detail the interests and rights of individuals and communities whose health is at stake and of health workers who are in short supply but should not be seen as tradable commodities (chapter 4). We also examine the interests and obligations of governments (interchangeably referred to as *states* or *countries*), but especially the US government, from four perspectives: government responsibility for the health of its inhabitants; government responsibilities for the health of people in other states; government policies toward migrant health workers; and government policy toward health worker emigration.

This "mapping" of rights, interests, and obligations starkly reveals the common and contested ground among the diverse actors. Our recommendations take account of these conflicts of interests and rights, particularly those that may stand as a barrier to the US government in solving complex health workforce problems.

Although our recommendations are directed to the US government, a range of other actors has a major stake and can assist in finding innovative solutions. These actors include state/tribal and local governments, health professionals and their trade associations, academia, health insurers, labor, and business. The federal government must provide leadership, but it will need the full involvement of the range of interested parties.

The following is a brief description of our seven recommendations, which are discussed in detail in chapter 5.

**RECOMMENDATION 1:**

**The administration, in collaboration with states and other stakeholders, should develop a strategic plan for addressing the health worker shortage in the United States.**

A considered national plan for responding to the domestic human resource shortage does not currently exist and is urgently needed. In developing the plan for its own workforce, the United States should consider how it would affect low- and middle-income countries. The plan should outline, with some specificity, the strategies that will be pursued to meet domestic human resource needs.

**RECOMMENDATION 2:**

**The administration, using an “all-of-government” approach, should develop a strategic plan to address the global health worker shortage.**

The administration, in partnership with major stakeholders, should develop a strategic plan for addressing the global shortage of health workers. The plan should link to the domestic health system and to migration policy, as well as to foreign development assistance. The plan should adopt an “all-of-government” approach, involving stakeholders from all levels of government and the private sector.

We recommend that the plan include a commitment to adopt a tool to assess the impact of domestic and foreign policies on the health workforce in other countries. The plan should embody the content of recommendations 3–7.

**RECOMMENDATION 3:**

**The administration, with congressional support, should provide global leadership in addressing the global health worker shortage.**

The United States should support bilateral and multilateral institutions and mechanisms that are being, or could be, used to address the global health workforce shortage. In particular, we recommend that the United States vigorously implement the WHO Global Code of Practice on the International Recruitment of Health Personnel (WHO Code) and ratify the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (Migrant Workers Convention).

The United States should use bilateral and multilateral agreements to embody its specific commitments to solving the global health worker shortage. The agreements could cover health workforce self-sufficiency for the United States and partner countries; financial and technical support for health workforce capacity building; managing and monitoring health worker migration between countries; knowledge and skills development programs for migrant health workers; collection and sharing of data on migration; protections for migrant health workers, including portability of payments made to pension plans during service in the United States; and facilitating remittance transfers and the diaspora in the United States to assist with the development of the health systems in migrant workers' home countries.

The proposed Framework Convention on Human Services (FCHS) currently being developed by the World Bank, in collaboration with the O'Neill Institute on National and Global Health Law at Georgetown University, for the Caribbean Community (CARICOM), provides a model for the United States. Although the process will require buy-in by governments in the Caribbean, the CARICOM FCHS, if successful, will be an international agreement designed to ensure cooperation and capacity building for human resources throughout the region. It would coincide with the new single-market economy providing a common market for trade in goods, services, capital, skills, and free movement of labor.

**RECOMMENDATION 4:**

**The administration and Congress should reform US global health assistance programs to increase health workforce capacity in partner countries.**

The United States should reorient the focus of its global health assistance programs to health system strengthening. The most important contribution that the United States can make to resolve the shortage of health workers in poor countries is to provide financial and technical support for the training, employment, and retention of local health workforces. This should be a major part of the Global Health Initiative. The United States should support countries with critical health workforce shortages to address the underlying causes of the shortages. Task shifting (being the notion of delegating tasks from more- to less-specialized health care workers who can competently and safely perform the task) and increasing the numbers of community health workers, primary health care professionals, public health professionals, and health care managers and administrators should be key components of these programs.

The designation of 20 "Global Health Initiative Plus" countries offers an opportunity for the administration to evaluate strategies for addressing the difficult and deep causes of the global health worker shortage. For example, finding ways to improve health worker retention would be a valuable focus of such research.

**RECOMMENDATION 5:**

**The administration, together with Congress, should increase financial assistance for global health workforce capacity development.**

The US government has made major new financial commitments to global health for the period 2009–2014, even though the budget deficit debates place those commitments in jeopardy. The United States has promised US\$63 billion over six years, although the current budget deficits will place a major strain on foreign assistance programs.

Even if all the financial commitments are fulfilled, they will still fall short of the Institute of Medicine (IOM) recommendation that the United States double its annual commitment to global health between 2008 and 2012 from \$7.5 billion to \$13 billion. The IOM figure is based on three assumptions: a Gross National Income (GNI) for the United States in 2012 of US\$15 trillion; 0.54% of GNI being spent on official development assistance (with this being the rich country average in 2008); and 16% of official development assistance being spent on health. We urge the US government to consider progressing towards the target set by the IOM.

We also recommend that the increased budget for global health expenditure be used to adequately resource health workforce development programs.

**RECOMMENDATION 6:**

**The US government, in collaboration with its partners, should increase the number of health workers being trained in US institutions for service in the US health system.**

The United States should increase its domestic production of health workers to meet most of the national demand. Positive first steps can be seen in the Affordable Care Act, which has made large financial commitments to health workforce development. However, further financial commitments will be required to meet the demand for health workers in the future.

The private sector should also increase its commitment to training and education. There is a pressing need for innovation in health worker training to enable the graduation of larger numbers of competent health workers to meet the national demand.

It is vital to stress, however, that this effort does not simply mean training more physicians and nurses. Rather, it requires a strategic examination of the health needs of individuals and communities and the determination of the most appropriate mix of services to meet those needs. Task shifting, community health workers, primary health care, and public health should be key components of these strategies. There is good evidence of the success of these methods in providing access to health care, reducing health disparities, improving quality of care, and capping health care costs.

Innovation is required to ensure that there are increased levels of retention in the health workforce and that competent professionals are available in poor and rural communities.

**RECOMMENDATION 7:**

**Congress should empower the Department of Health and Human Services or another appropriate agency to regulate the recruiters of foreign-trained health workers.**

The federal government should regulate the recruitment of migrant health workers. Protection of migrant health workers is essential. The benefits of migration to development are maximized when migrant workers' rights are properly safeguarded. The Migrant Workers Convention and the WHO Code should be followed in designing this regulatory model. The Convention should be implemented in full in domestic law. The Voluntary Code of Ethical Conduct for the Recruitment of Foreign-Educated Nurses could also form the basis of a US regulatory regime for the protection of migrant workers in relation to the conduct of recruitment companies.

The seven recommendations outlined in this report would reform policies and programs to improve human resources in the health sector in the United States and beyond. The United States has a clear national interest in reforming its human resources policies domestically and globally. These recommendations suggest how the federal government can best perform this task. The benefits of doing so would flow to Americans and others around the world, particularly to the most disadvantaged.

## CHAPTER 2: THE GLOBAL SHORTAGE OF HEALTH WORKERS

The world is facing a major shortage of health workers,<sup>1</sup> the size of which is difficult to comprehend. The World Health Organization (WHO) estimates there is an immediate global need for an additional 4.3 million health workers in the 57 countries with critical shortages. Unless these shortages are ameliorated, it will place in jeopardy the achievement of the health-related Millennium Development Goals (MDGs).<sup>2</sup>

In these 57 “critical countries,” many people go without health services because there are simply too few professionals to do the work required or there is an uneven spread of professionals between rural and urban locations, wealthy and poor communities, and public and private sector health services. In many instances, the “maldistribution” of workers is more difficult to correct than the lack of health workers. The dearth of health workers has no doubt contributed to high levels of suffering and illness, as there are dire health effects for people who cannot access the services.

Although this chapter focuses on “mapping” the shortages in the 57 countries on WHO’s “critical” list, it is important to stress that the world’s total health worker deficit is much more than 4.3 million. The WHO does not take into account shortages in other developing countries, nor does it take into consideration shortages that developed countries are experiencing, even if the claims of shortages by rich countries are treated with some caution.

In order to assess the shortages experienced in critical countries, this chapter begins by considering who a “health worker” is and what a “health worker shortage” is. Against this background, we examine the situation in countries with critical shortages. The chapter then specifically considers the shortages in Africa and Southeast Asia, the two regions with the largest shortages in relative and absolute terms, respectively. Finally, this chapter discusses the affects of the shortage on disease burden, as well as the consequences for patients and populations.

### WHO IS A “HEALTH WORKER”?

To accurately determine the extent of the human resource shortage, it is important to understand the kinds of health professionals needed in a well-functioning health system. This is not an easy task and different countries use varying classification systems to analyze their health workforce. The WHO is working to develop a detailed universal classification system for health workers,<sup>3</sup> but in the interim, it defines health workers as “all people engaged in actions with the primary intent of enhancing health.”<sup>4</sup>

This broad definition could encompass a large range of people, including doctors, nurses, dentists, pharmacists, physiotherapists, laboratory technicians, community health workers, and traditional healers; administrative workers in health care organizations such as management and clerical staff; support workers such as catering and maintenance staff; public health personnel, health educators, health sector volunteers, and family carers.<sup>5</sup> This definition does not encompass other workers whose actions protect and advance the society’s health, but whose primary goal is not the improvement of health. Police, for example, enforce seat belt or drunk driving laws and primary school teachers help children learn the value of physical activity to a healthy life.

## COUNTING “HEALTH WORKERS”

Despite proffering a broad definition of a health worker, the WHO data about the health workforce are more limited, due to major shortcomings in country collection of data. Many countries simply do not collect any, or any meaningful, data for some categories of health workers.<sup>6</sup> As such, the WHO is only able to collect data about paid health workers. Its data collection focuses on “health service providers”<sup>7</sup> and “health management and support workers.”<sup>8</sup>

WHO data are most comprehensive in relation to physicians and nurses, with sparse information about other health service providers and health management and support personnel. This is a significant deficiency, given the invaluable contributions that other health service providers make to functional health systems and the potential for task shifting from doctors and nurses to other cadres of health workers, which is discussed in chapter 3. The WHO’s estimates of health workers generally also only include workers employed in health care organizations and not those employed in other settings, such as doctors working in businesses that care for the company’s workforce.<sup>9</sup>

Given the limited data available, the WHO estimates that there are 59.2 million full-time paid health workers worldwide and that health service providers comprise two-thirds of this group (39.5 million), with the other third being health management and support workers (19.7 million).<sup>10</sup> The WHO says that, in 2000, there were 9 million doctors and 15 million nurses and midwives worldwide.<sup>11</sup> This results in an average density of 1.6 doctors and 2.5 nurses per 1,000 population.<sup>12</sup>

By contrast, the Joint Learning Initiative (JLI) assesses that there are more than 100 million health workers worldwide, which includes 24 million doctors, nurses, and midwives, and 75 million informal, traditional, community, and allied health workers.<sup>13</sup> There is a huge variation between the WHO and JLI figures, which may be explained by the WHO counting full-time equivalent positions and the JLI counting individual workers. The divergent estimates of the WHO and the JLI point to the difficulties of estimating the size of the current health workforce and, by extension, its deficiencies.

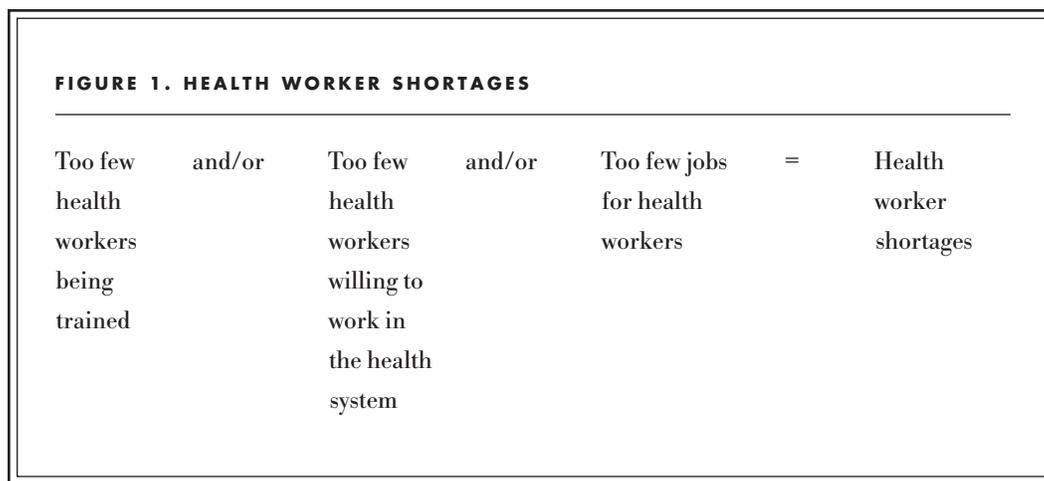
## WHAT IS A “HEALTH WORKER SHORTAGE”?

A number of indicators can be used to determine whether there is a health worker shortage in a country or a region within a country. In relation to nursing, for example, process indicators, such as vacancy rates, job turnover or wastage, use of temporary staff, application rates for training positions, and outcome indicators (e.g., mortality rates, cross infection, and patient accidents) may all point to a staffing shortage.<sup>14</sup>

A more precise analysis of the adequacy of a country’s health workforce requires that the current health workforce be compared with an established benchmark of the number and types of health workers that are needed for the country to meet its people’s health needs. It is the gap between this *benchmark* level of health worker availability and the *current* level that, in our view, constitutes a

“shortage.” “Health worker availability” refers to the idea that workers are *trained and employed* as health workers to provide services to advance the public’s health.

Using this definition, a “shortage” encompasses three concepts: first, inadequacies in the health workforce due to a failure to train an adequate number of health workers; second, a lack of health workers who, despite being trained, are ready and willing to serve in the health system;<sup>15</sup> and third, a lack of employment opportunities for health workers (see figure 1). Given this approach, countries such as the Philippines, which have more trained nurses than can be employed in their deeply underfunded health systems, are treated as experiencing health worker shortages.

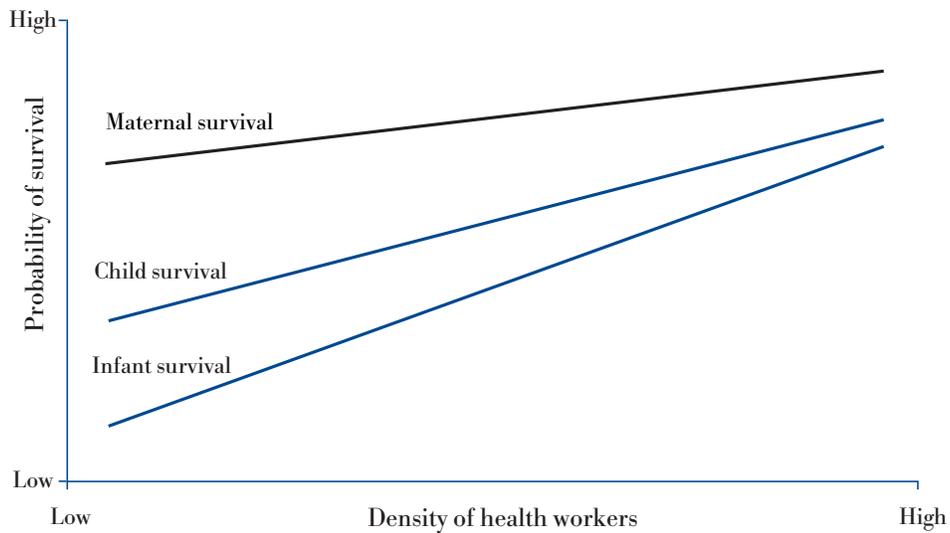


In setting a health workforce benchmark, it is generally accepted that there is a correlation between health worker density and positive health status and outcomes (see figure 2).<sup>16</sup> Despite this, there is “no single global norm or standard for health worker density.”<sup>17</sup> There is no formula for the number and mix of health workers (for example, the nurse-to-doctor ratio) that must be present to ensure an effective health system.

There is a complex set of factors that is relevant for determining the optimal health workforce composition for a particular country, including demand factors (such as demographic and epidemiological trends, service use patterns, and macroeconomic conditions); supply factors (such as labor market trends, funds to pay salaries, health professional education capacity, licensing and other entry barriers); factors affecting productivity (such as technology, financial incentives, staff mix, and management flexibility in resources deployment); and priority allocated to prevention, treatment, and rehabilitation in national health policies.<sup>18</sup> It is also important to consider countries in the same region or at the same level of development as the country determining its minimum and/or optimal health workforce benchmarks.<sup>19</sup>

The use of vastly different benchmarks for determining health workforce shortages means that the countries claiming to have shortages may not be at all similar in terms of the nature of their

**FIGURE 2. HEALTH WORKERS SAVE LIVES!**



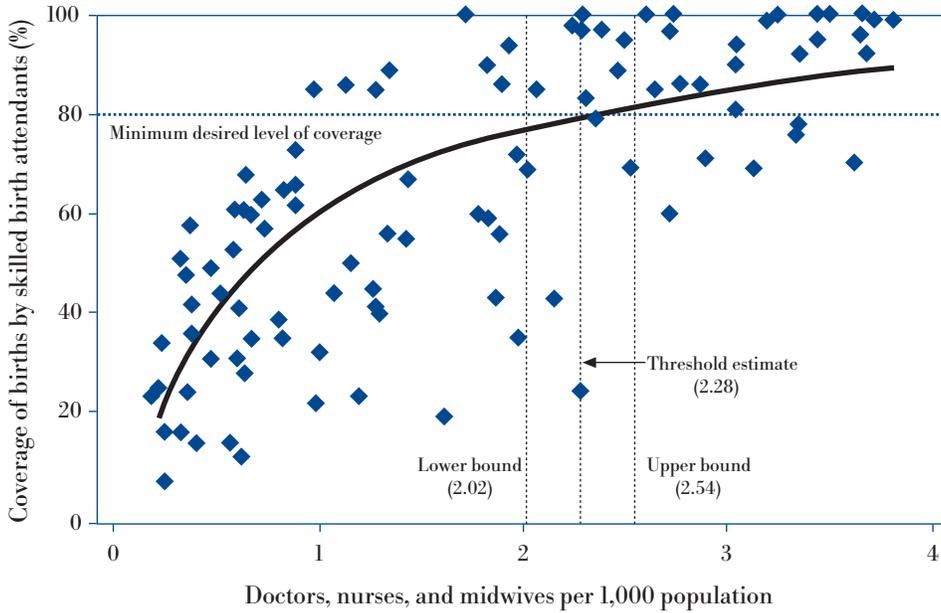
Source: WHO. 2006. *The World Health Report 2006—Working Together for Health*, page xvi.

Available at [http://www.who.int/whr/2006/whr06\\_en.pdf](http://www.who.int/whr/2006/whr06_en.pdf).

population's health status and needs, the functionality of their health system, the size and composition of their health workforce, the relative and absolute severity of their claimed health worker deficit, and, most importantly, the human consequences of the health workforce deficit.

A basic guideline developed by the JLI states that 2.5 health workers (counting only doctors, nurses, and midwives) per 1,000 people are required to provide basic health interventions and meet the main Millennium Development Goals for health.<sup>20</sup> The guideline is based on research from around the world regarding health worker density and a finding that countries with fewer than 2.5 doctors/nurses/midwives per 1,000 people failed to achieve an 80% coverage rate for deliveries by skilled birth attendants and immunization against measles. The WHO repeated the analysis and arrived at a very similar conclusion: 2.28 doctors/nurses/midwives per 1,000 people are needed to ensure that 80% of births are attended by a skilled birth attendant (see figure 3).<sup>21</sup> Although the benchmark has some limitations,<sup>22</sup> it has been valuable in identifying those countries whose health workforce is inadequate to deliver even the most basic immunization and maternal health services.

**FIGURE 3. POPULATION DENSITY OF HEALTH CARE PROFESSIONALS  
REQUIRED TO ENSURE SKILLED ATTENDANCE AT BIRTHS**



Source: WHO. 2006. *The World Health Report 2006—Working Together for Health*, page 11.  
Available at [http://www.who.int/whr/2006/whr06\\_en.pdf](http://www.who.int/whr/2006/whr06_en.pdf).

**IS THERE A GLOBAL HEALTH WORKER “SHORTAGE”?**

Using the JLI benchmark, it is estimated that there is a shortage of more than 4 million doctors, nurses, and midwives.<sup>23</sup> In its study, WHO estimated that in 57 countries, there are 2.4 million too few physicians, nurses, and midwives to provide essential health interventions. The WHO suggests that there are, in fact, 4.3 million too few health workers in these 57 countries, taking into account the other health workers required to work with the doctors, nurses, and midwives providing these basic interventions.<sup>24</sup> Of these 57 countries, 36 are in Africa, and according to the WHO regional classification system, 7 are in the Eastern Mediterranean region, 6 are in Southeast Asia, 5 are in Central or South America, and 3 are in the Western Pacific region (see figure 4).<sup>25</sup> Countries outside

of Africa falling below the WHO benchmark include Pakistan, Bangladesh, Afghanistan, Lao People's Democratic Republic, India, Myanmar, Cambodia, Papua New Guinea, Indonesia, Iraq, Morocco, and Yemen.<sup>26</sup> By way of contrast, the United States and Canada have 11.93 and 12.09 doctors and nurses per 1,000 population, respectively.

In absolute terms, Southeast Asia has the greatest need for health workers to meet the WHO standard because of high population density in India, Bangladesh, and Indonesia, where there needs to be a 50% increase in health workers.<sup>27</sup> In relative terms, the greatest need is in Sub-Saharan Africa, where a 139% increase in health workers would be required to reach the level set by the JLI and the WHO (see table 1).<sup>28</sup>

Another way of understanding the shortages in critical countries is to consider how many additional health workers are required in each country and the cost of securing these workers. On average, each of the 57 countries needs an additional 75,000 health workers to deliver the most basic interventions to their people. The cost of training all of the additional physicians, nurses, and midwives is US\$136 million per year for each of the 57 countries that fall below the WHO benchmark. Employing newly trained health workers would incur an additional cost of US\$311 million per country per year.<sup>29</sup> But it is not just a matter of throwing money at countries to solve the problem. Training health workers requires the development of physical infrastructure in the form of training centers and human capital in the sense of skilled health workers to act as educators. The long timeline for training some cadres of health workers should also be kept in mind.

Of course, many countries aim to offer a range of health services for prevention and treatment of disease beyond the bare minimum reflected in the MDGs, which means that additional health workers are required.<sup>30</sup> The lack of health workers to provide these additional interventions also constitutes a "shortage," but this is not captured by the JLI or WHO benchmarks or in the WHO estimated deficit of 4.3 million workers. The total global deficit, with all of its associated consequences and costs, is therefore most likely much greater than 4.3 million health workers. The focus in this report, however, is on addressing the shortage in the world's developing countries. The analysis in this chapter uses the situations in Africa and Southeast Asia to highlight how the shortage looks in such countries.

## **CRITICAL SHORTAGES**

Africa's shortage of health workers is at a critical level. Forty-six countries comprise the African region of the WHO, and, as stated above, thirty-six of these fail to meet the WHO standard of 2.28 doctors, nurses, and midwives per 1,000 people. In 2007, the WHO found that there were only 1.14 doctors, nurses, and midwives per 1,000 population.<sup>31</sup> Some African countries are in a better or worse position than these averages. For example, in Malawi, there are 2 doctors per 100,000 people.<sup>32</sup> The situation is very similar in Mozambique where there are 3 doctors for every 100,000 people<sup>33</sup> and 32 nurses per 100,000 people.<sup>34</sup> In Uganda, there are 71 nurses per 100,000 people.<sup>35</sup> In Zambia, some district health



**TABLE 1. ESTIMATED CRITICAL SHORTAGES OF DOCTORS, NURSES, AND MIDWIVES BY WHO REGION**

WHO region	Number of countries		In countries with shortages		
	Total	With shortages	Total stock	Estimated shortage	Percentage increase required
Africa	46	36	590,198	817,992	139
Americas	35	5	93,603	37,886	40
Southeast Asia	11	6	2,332,054	1,164,001	50
Europe	52	0	NA	NA	NA
Eastern Mediterranean	21	7	312,613	306,031	98
Western Pacific	27	3	27,260	32,560	119
World	192	57	3,355,728	2,358,470	70

NA, not applicable.

Source: WHO. 2006. *The World Health Report 2006—Working Together for Health*, page 13.

Available at [http://www.who.int/whr/2006/whr06\\_en.pdf](http://www.who.int/whr/2006/whr06_en.pdf).

to several developed countries) but still has only 1.87 doctors, nurses, and midwives per 1,000 population. Together, these 6 countries in Southeast Asia have a larger absolute deficit than the 36 countries in Africa.

#### THE GEOGRAPHIC AND ECONOMIC MALDISTRIBUTION OF HEALTH WORKERS

In countries falling below the benchmarks set by the JLI or the WHO, the scarcity of health workers is most intense in rural and impoverished areas, and in health facilities that serve the poor.<sup>40</sup> Many health workers congregate in cities and even then avoid working in particularly poor communities, preferring the higher wages and better conditions in private for-profit or not-for-profit health centers and hospitals.<sup>41</sup>

The WHO suggests that, globally, less than 55% of people live in urban areas, but more than 75% of doctors, 60% of nurses, and 58% of other health workers live in urban areas.<sup>42</sup> Some parts of rural South Africa have 14 times fewer doctors than the national average.<sup>43</sup> The problems of access to health services in South Africa are further compounded by the fact that the private sector employs half the country's nurses and two-thirds of the country's doctors,<sup>44</sup> who serve only 20% of the country's

population.<sup>45</sup> This means that, while South Africa as a whole exceeds the JLI and WHO benchmarks, parts of the country and segments of the population do not have access to health workers.

## **THE GRAVE DISEASE BURDEN**

The poor health worker/population ratio in Africa and Southeast Asia is compounded by the regions' grave disease burden. Not only are there inadequate numbers of health workers to assist each man, woman, and child, there is also a much greater burden of disease and scarce resources. This creates a vicious cycle of health decline, as inevitably, the disease burden grows when there are so few human and other resources available to respond to the existing health problems.

Sub-Saharan Africa has 10% of the world's population, 24% of the world's disease burden, 3% of the world's health care workers, and less than 1% of the world health's expenditures (see figure 5).<sup>46</sup> It is the need to treat HIV/AIDS that particularly exacerbates the workforce shortage in Africa.<sup>47</sup> It has been projected that, in the period 2006–2016, there could be a threefold increase in the number of patients per physician for the delivery of HIV services in Africa and that each physician would need to see 26,000 patients per year. This is an impossible expectation. By comparison, in the United States, one physician is expected to manage about 2,000 patients per year or 20 to 25 patients per day.<sup>48</sup>

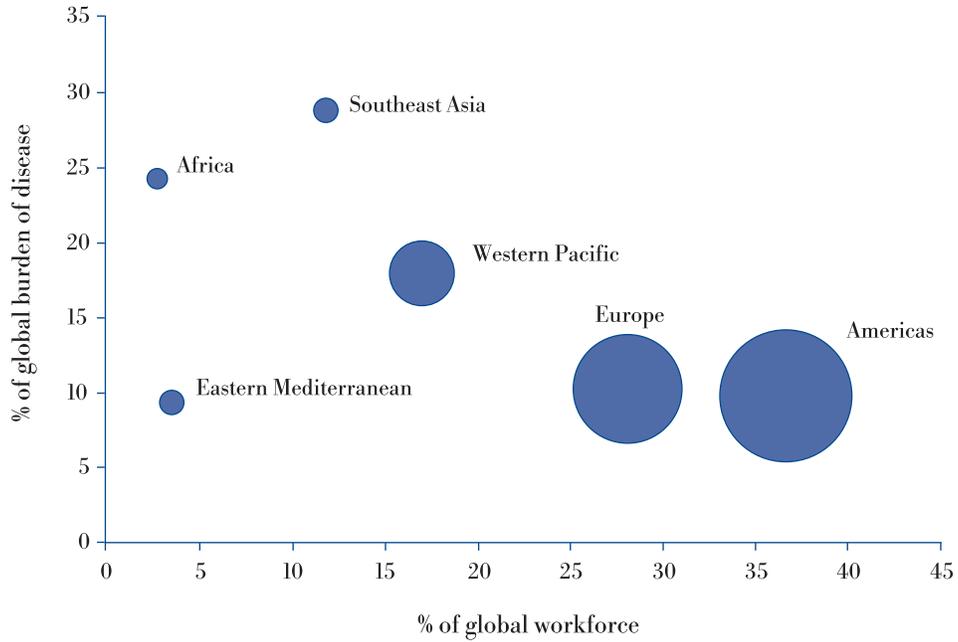
The United States offers a marked contrast, as it has an estimated 37% of the world's health workers, more than 50% of the world's health financing, but only 10% of the global disease burden.<sup>49</sup> The United States has considerably more health workers to deal with significantly less disease burden.

In a context where human resources for health are so stretched, Africa's and Southeast Asia's health systems cannot, or can only barely, offer the most essential health interventions to prevent and treat injury and disease. The problem afflicts public sector efforts, as well as those initiatives sponsored by other states, international organizations, nongovernmental organizations, and public-private partnerships, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria.<sup>50</sup>

Because of a lack of staff, hospitals may be forced to close, medical clinics to operate at reduced hours,<sup>51</sup> patients to queue for many hours, new patients to be denied care,<sup>52</sup> and new health programs to be disbanded. Workforce shortages may make it difficult to respond to health crises such as emerging infectious diseases, natural disasters, and armed conflict.<sup>53</sup> Even worse, human resource shortages make it nearly impossible to plan and implement public health programs<sup>54</sup> or to create innovative paradigms of care required for effectively treating chronic diseases.<sup>55</sup>

Due in large part to health workforce shortages, only 19% of African countries have at least 80% of their populations immunized for measles. In Africa, on average, 910 women die for every 100,000 live births,<sup>56</sup> despite the fact that births attended by skilled professionals can significantly reduce the risk of maternal mortality.<sup>57</sup> Infant and under-five-year-old mortality also significantly decrease as the density of health workers increases.<sup>58</sup> In the African region, there is an infant mortality rate of 99 deaths per 1,000 live births, a neonatal mortality rate of 40 deaths per 1,000 live births, and an under-five-year-old mortality rate of 165 per 1,000.<sup>59</sup>

**FIGURE 5. DISTRIBUTION OF HEALTH WORKERS BY LEVEL OF HEALTH EXPENDITURE AND BURDEN OF DISEASE BY WHO REGION**



Source: WHO. 2006. *The World Health Report 2006—Working Together for Health*, page 9.

Available at [http://www.who.int/whr/2006/whr06\\_en.pdf](http://www.who.int/whr/2006/whr06_en.pdf).

In the Southeast Asian region, the situation is slightly better than in Africa. There is an infant mortality rate of 51 deaths per 1,000 live births, a neonatal mortality rate of 35 deaths per 1,000 live births, and an under-five-year-old mortality probability of 68 per 1,000.<sup>60</sup> There is a maternal death rate of 460 per 100,000 births.<sup>61</sup>

Médecins Sans Frontières reports that, due to the lack of health workers, anti-retroviral (ARV) treatment for HIV/AIDS is not reaching 85,000 people in Malawi, 235,900 people in Mozambique, 735,000 people in South Africa, and 39,300 in Lesotho.<sup>62</sup> Without ARVs, these people will suffer and die needlessly. Some may try to scrape together monies to pay for health services in the private sector<sup>63</sup>—which is often better staffed—but this may cause even further impoverishment.<sup>64</sup>

These data exemplify the “disturbingly large chasm”<sup>65</sup> between what scientific development theoretically enables us to do to prevent morbidity and premature mortality and what is being done. This contrast is starkest in some of the poorest countries, such as those in Africa, where people are ill and dying from diseases that are wholly preventable and/or treatable using very simple, inexpensive methods. The WHO reports that, in many instances, there are adequate supplies of drugs and technologies available to improve health, but simply no health workers to administer them.<sup>66</sup>

## **CONCLUSION**

The current workforce shortages in the 57 countries marked as “critical” by the WHO are extreme. The human costs are enormous. The money and time it will take to create and maintain a basic health workforce in these 57 countries pose substantial burdens, particularly for those that have few resources. The path to repairing this situation is not an easy one, but it is vital that action is taken as a matter of urgency. A key to formulating and choosing strategies that will have a real impact is to understand the causes of the global workforce crisis in various parts of the world. This is the subject of the next chapter.

Gaining insight into the confluence of factors that causes health workforce shortages is critical in designing effective solutions. Rather than a single cause, there are multiple complex causes (see figure 6) that combine to produce a global shortage of 4.3 million workers in 57 of the world’s poorest countries.<sup>1</sup> Some of these causes are cross-cutting and seen in all countries experiencing health worker shortages. Other causal factors affect a particular country or a region of a country, or have a special potency in one situation and not another.

**FIGURE 6. DRIVERS OF INCREASED DEMAND FOR HEALTH WORKERS**

- Population growth
- Increased purchasing power for health services
- Increased life expectancy
- Rise of chronic disease
- Spread of HIV
- Health workers’ skills in demand in diverse settings

Although it is essential to take a localized approach to the causal factors operating in a particular country or region, it should not be assumed that the causes are solely domestic or local in nature. A shortage in one country may be caused or exacerbated by health worker shortages in, or conduct by, another country.<sup>2</sup> This boundary crossing is expected in a globalized world in which states are interdependent due to the flow of goods, services, capital, knowledge, and people.<sup>3</sup>

In relation to the health workforce, this interconnection is seen most clearly when rich countries leave unchecked their escalating demand for health workers and meet this need to a significant extent through the migration and/or recruitment of health workers from poorer countries. The limited supply of health care workers in the source country is further depleted when health care workers leave for employment in the destination country. This chapter explores the ways in which shortages in “critical” countries can be linked to the shortages in richer countries.

This chapter also examines the many additional factors that contribute to the global shortage of health care workers. It starts by arguing that the global shortage is partly driven by the significantly increased demand for health services across the globe, and particularly among the world’s well-resourced countries. This increased demand is caused by a higher incidence of chronic diseases, increased economic capacity to “purchase” health services, and the diversification of venues in which health care is delivered.

This increase in demand has not been met with a corresponding increase in supply. Many countries have not implemented the policies, accompanied by the necessary funding, to create the

supply of health workers that their countries need. This is, in part, due to serious deficiencies in the planning process resulting from a lack of relevant data, technical capacity, and engagement with relevant stakeholders. There is too often also a failure to adopt clear policies of national self-sufficiency and task shifting. In many countries, these deficiencies in the planning process have been coupled with low funding levels for health workforce education and/or employment. Thus, people wanting to pursue a career in the health sector cannot get the training they need, and health workers who are ready and willing to work cannot find employment. Donor countries and organizations have been largely unwilling to assist low- and middle-income countries with strengthening their health systems.

Even when the health sector does have educated health workers, they may be reluctant to remain in their jobs due to substandard working conditions and remuneration. These conditions may drive workers to migrate to foreign countries that are increasingly reliant on this influx of labor. This represents a disturbing waste of resources, as the following discussion of demand and supply factors illustrates.

The chapter draws on evidence about the health workforce shortages in many of the 57 countries defined by the WHO as having a “critical shortage.” In describing the situation in rich countries, the chapter gives particular attention to the United States. This supports the discussion about the United States in chapter 4 and the recommendations in chapter 5. The focus on the United States is not intended to suggest it is the only rich country with a health workforce shortage or that it solely contributes to the global shortage. Many other rich countries have similar workforce situations and policies that warrant attention.

## **INCREASED DEMAND FOR HEALTH CARE WORKERS**

### **A Growing Population with Increased Capacity to “Purchase” Health Services**

Rich and poor societies alike require an expanding health workforce to meet their population’s needs for prevention and treatment of injury and disease. The number of people in the world needing health services is rising, with the global population increasing at a rate of about 220,000 people per day.<sup>4</sup> There is a continuing trend of people investing more of their disposable income in health services,<sup>5</sup> with demand often rising with the growth in GDP.<sup>6</sup>

Furthermore, in countries that operate social health insurance schemes (whether funded through taxes, private payments, or other financing mechanisms), more people will have the capacity to seek services. For example, an additional 40,000 nurses per year are needed in the United States to meet the increased demand resulting from the expansion of health insurance coverage as part of the 2010 Affordable Care Act.<sup>7</sup>

Highly developed countries have also sought to develop “surge” capacity in the health workforce in the case of public health emergencies such as a natural disaster, a fast-spreading infectious disease, or bioterrorism.<sup>8</sup>

## **Longer Life Expectancy and the Rise of Chronic Diseases**

People in developed countries now predominantly die of noncommunicable diseases (NCDs) such as diabetes, heart disease, stroke, respiratory disease, and cancer,<sup>9</sup> which are associated with long-term, intensive care.<sup>10</sup> This trend toward NCDs is also apparent in low- and middle-income countries. In many developed countries, fertility rates have dropped but population growth continues,<sup>11</sup> life expectancy has risen,<sup>12</sup> and the proportion of the population over 70 years has expanded.<sup>13</sup> The ageing of the population in rich countries has contributed to an even higher incidence of care-intensive chronic and degenerative diseases.<sup>14</sup>

Although average life expectancy is lower in developing countries,<sup>15</sup> the proportion of the population over 70 also continues to grow.<sup>16</sup> Low- and middle-income countries are suffering from a “double burden” of infectious diseases and chronic diseases.<sup>17</sup> By 2030, noncommunicable diseases are expected to account for over three-quarters of all deaths.<sup>18</sup> The four leading causes of death in 2030 are expected to be ischemic heart disease, cerebrovascular disease, chronic obstructive pulmonary disease, and lower respiratory infections (mainly pneumonia).<sup>19</sup> In September 2011, the United Nations held a high-level summit on NCDs, demonstrating their global importance to attaining healthier populations.

## **The Spread of HIV**

The impact that HIV/AIDS has had on the demand for health care services in some regions, particularly Sub-Saharan Africa, has been overwhelming and deserves special mention. The High Level Forum on the Health-Related Millennium Development Goals found that the AIDS epidemic has “led health service delivery systems to collapse” in Sub-Saharan Africa.<sup>20</sup> The workload for health workers in countries ravaged by HIV/AIDS has increased dramatically, as they attempt to care for patients with lifetime courses of highly effective anti-retroviral (ARV) treatment. Although this enhanced life expectancy and life quality for persons living with AIDS must be celebrated, there are major human resource issues that flow from implementing and maintaining such a treatment regimen.<sup>21</sup>

## **More Uses for the Skills and Knowledge of Health Workers**

Health workers’ skills are being sought in a range of new contexts. In particular, there has been a trend away from family-based care toward a greater reliance on paid health care professionals to assist with family members who are ill or injured or elderly and unable to care for themselves.<sup>22</sup> The demand is also escalated by the development and use of new “nurse-intensive medical technologies.”<sup>23</sup> There has been an expansion in the sites where health services are made available and considered valuable.

Nurses are now employed as case managers in disease management companies, at retail health clinics, and in large companies to provide services to the companies’ employees (and their families).<sup>24</sup>

There is expected to be a 10% increase in demand for nurses' skills in nursing homes and home care settings between 2000 and 2020.<sup>25</sup> Similar growth in home health care, using professional health worker labor, is expected. For physicians, career options other than clinical practice include medical administration, research, education, and business, in particular in pharmaceutical, biotech, and medical equipment companies.<sup>26</sup>

In the United States, the prominence of the health professional is also seen in the increasing size and number of hospitals.<sup>27</sup> The need to compensate for shortages in relation to one cadre of health care worker may escalate the demand for other types of health care workers. This is evidenced in the United States with the surge in demand for nurses as the supply of physicians diminishes.<sup>28</sup>

## **HEALTH WORKFORCE PLANNING**

The inadequate supply of health professionals in many countries can be traced to serious deficiencies in national planning for health workforce development. A national health workforce plan must project the country's long-term health workforce needs, identify strategies to meet those needs (including creating an educational infrastructure, attracting people to health careers, and ensuring employment opportunities for successful graduates), build the capacity to react to short-term crises, and be adaptable to changing circumstances.<sup>29</sup> The plan should be accompanied by a health workforce expenditure plan that coordinates and guides resource allocation.<sup>30</sup>

High-quality national health system planning has the potential to significantly improve the health status and outcomes of a country's people.<sup>31</sup> However, health workforce planning is a highly complex task. At the least, it requires sound health workforce data, personnel with the relevant skill sets and technical tools, clear health priorities, strong political leadership, and broad stakeholder participation.<sup>32</sup> Many countries have not made investments in these areas to enable them to effectively engage in the planning process.

### **Lack of Information Relevant to Health Workforce Planning**

The lack of necessary data to respond to a country's health workforce demands leaves many countries unprepared to engage in planning.<sup>33</sup> The WHO reports that, in most countries, "information is patchy at best."<sup>34</sup> Crafting a strategic plan to prepare for future health demands requires statistical data regarding key national labor market indicators, with health workforce information being particularly important. At a minimum, countries require data on the demographics, size, skills, distribution, shortages, oversupply, and entry/exit patterns of the current and prospective health workforce. These data should relate to the entire range of health workers, not just doctors and nurses,<sup>35</sup> and cover workers in the public and private sectors.<sup>36</sup> In addition to country data, planners need information about global labor markets, migratory flows of health care workers, and the activities of multinational corporations.

Unfortunately, in many countries there has been a dearth of research on the health workforce, such as the operation of health training institutions, recruitment, management of incentives, and attrition.<sup>37</sup> Much of the existing information has severe limitations because it is “largely skewed towards high-income countries, medical doctors, and descriptive reports as opposed to intervention studies or best practice reports.”<sup>38</sup> Recent workforce planning in Malawi, for example, had to rely on anecdotal evidence about the health workforce.<sup>39</sup> Even countries like the United States, which have much more reliable data at hand, may be hindered by gaps in knowledge about a multiplicity of health needs.<sup>40</sup> For example, the United States has no means of accurately gathering and evaluating data on the national nurse labor market, although some good planning work is undertaken at the state level.<sup>41</sup>

### **Deficiencies in the Health Workforce Planning Process**

Many countries lack the technical capacity and tools to undertake such a complicated and challenging exercise as health workforce planning.<sup>42</sup> Some countries that receive development assistance for health abandon their stewardship responsibilities and leave health workforce planning and development to the international donors. In many countries, even those with the necessary technical base, health workforce planning has been poorly performed.

Even in the United States, policymakers have made inadequate assessments about future sufficiency of the health workforce.<sup>43</sup> Until the creation of the National Health Care Workforce Commission as part of the rounds of health care reforms in the United States, there was no dedicated health workforce-planning agency.<sup>44</sup> The United States does not have a national policy relating to health worker shortages and migration of foreign-trained workers.<sup>45</sup> Hopefully, such a policy will be created as part of the implementation of the health care reforms, especially the extension of insurance coverage and access to 30 million more people.

To date in the United States, for example, there has also been no planning process that covers all cadres of health workers. Planning for the nurse workforce and the physician workforce has occurred entirely separately, although the level of demand for and supply of nurses and physicians is tightly interlinked.<sup>46</sup> As the supply of physicians decreases, more nurses, especially those with a higher level of education who can act as nurse practitioners or nurse anesthetists, are needed to provide health care services. The roles played by other health workers, including public health personnel and community health workers, must be factored into a comprehensive plan.<sup>47</sup> The failure to consider task shifting as part of workforce planning is most likely to occur when such planning isolates the various categories of health care workers.

Many of these difficulties arise because planning occurs without involving and coordinating the full range of stakeholders. At the government level, health system priority setting should integrate the input of the departments of health, finance, education, infrastructure, and labor.<sup>48</sup> Often, health workforce planning is isolated in a single part of government and does not involve all interested government departments.

A broad group of interested parties outside of government is also vital to the planning process, but often excluded. Academic institutions, private clinics and hospitals, health industries, nongovernmental organizations, consumer organizations, professional associations, and unions should be part of the process.<sup>49</sup> They have strong interests in the creation of an adequate and skilled national health workforce, and need to be part of the planning process.<sup>50</sup> Stakeholders can also contribute valuable information to the planning process. Their belief in and support of the workforce strategy are important to ensure its wider acceptance among workers, industry, and the community.<sup>51</sup>

### **National Self-Sufficiency and Ethics**

Countries that engage in health workforce planning make decisions (explicitly or implicitly) about the extent to which they will create a supply of health workers through education and the degree to which they will rely on migrant health workers. The concept of “workforce self-sufficiency” is generally employed to connote the idea that a country meets *a very significant part* of its health workforce needs by training and employing an adequate number of its own citizens and residents and does not over-rely on migrant health workers.

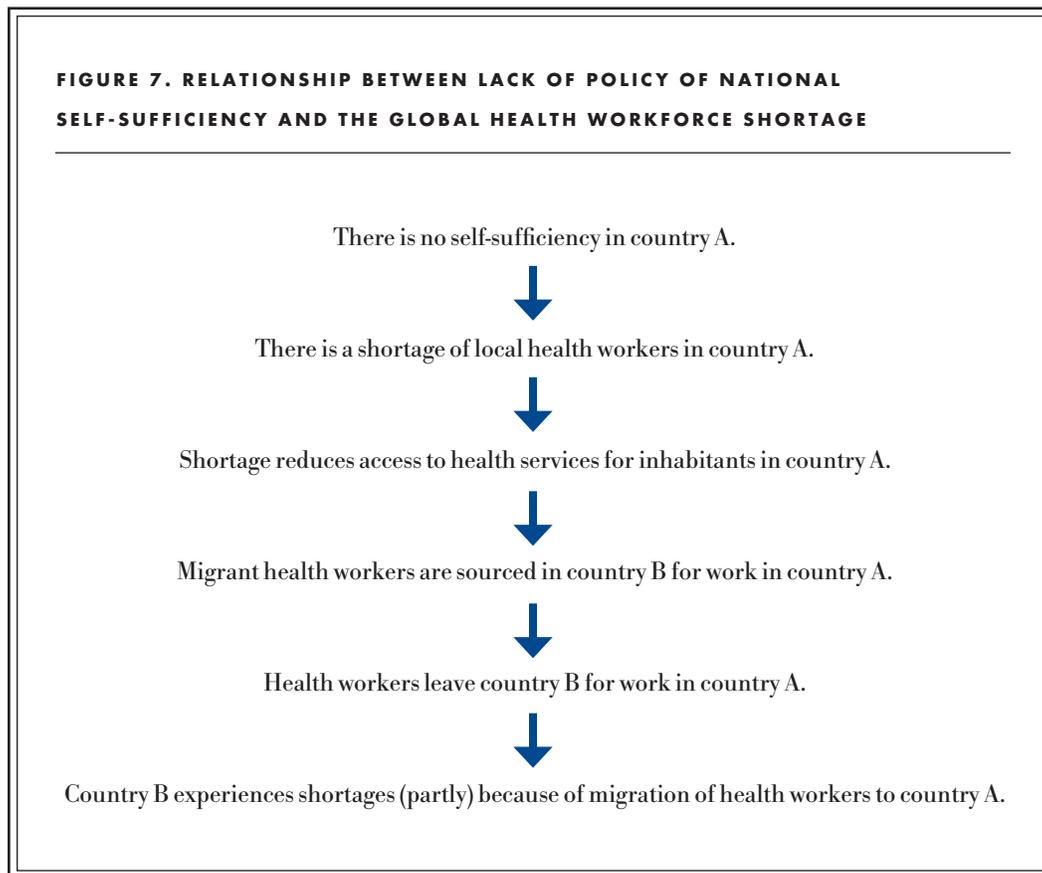
This concept does not require that a country’s entire health workforce be locally trained. Furthermore, workforce self-sufficiency does not exclude the employment of persons who have been educated as health professionals in another country, nor does it bar a country from permitting persons to migrate for the specific purpose of employment in the health sector. The concept recognizes that migrant labor will always be an important and valuable part of the health workforce of a country. Still, the goal of national self-sufficiency is to create and maintain an efficient and ethical health workforce that is largely composed of a country’s own citizens and permanent residents.

A policy of national self-sufficiency is ethically preferable. A country should take responsibility for creating and maintaining its health workforce from its own population and limiting the extent to which it takes workers from other countries. A strategy of national self-sufficiency would limit the extent to which one country harms other countries by drawing health workers who may be urgently needed in the source countries.

The United States does not appear to have an explicit policy of national self-sufficiency and instead relies on health workers, particularly nurses, from other countries to meet the health system’s increasing demand. Other wealthy countries, such as Australia, New Zealand, and the United Kingdom, are similarly dependent on the labor of migrant health workers. Neither the United States nor its peers have taken concrete steps to reduce their reliance on migrant labor. The US government, for example, issues large numbers of visas for health workers,<sup>52</sup> fails to regulate the health worker recruitment,<sup>53</sup> and does very little to protect the rights and welfare of migrant health workers.<sup>54</sup> Although the federal government may not deliberately seek to fill its health system with health workers from poor countries, this is precisely what occurs in practice.

Critics argue that national self-sufficiency is an outmoded theory in the context of increased movement of goods, services, and people in a global environment. National self-sufficiency is almost seen as a form of protectionism that undermines the international trading system. However, a free market for the trade in services cannot ensure the right numbers and types of health workers flowing in and out of countries. Countries that lose health workers often have no surplus health workers and face chronic shortages (see figure 7).

Furthermore, many countries will never attract migrant workers to their systems. Of course, these countries tend to be the poorest or the most politically or economically unstable. The fact is there is not an overall adequate number of health workers around the world coming to and going from countries in accordance with the countries' health care needs. For example, the United States absorbs large numbers of migrant health workers, and yet very few US-resident health workers emigrate to close the gaps in other countries' health systems.<sup>55</sup> There are, however, innovative programs in the United States where young students, residents, and professionals spend short periods working in other countries. This is good for the country, which needs health workers, and good for the young person who gains invaluable experience.



## Failure to Pursue Policy of Task Shifting in the Health Workforce

Another critical policy failure is the inadequate response to inefficient matching of skills and tasks for various cadres of health workers. If task shifting were accepted as part of health workforce policy development, these inefficiencies could be addressed. Task shifting, involving the delegation of tasks from more- to less-specialized health care workers who can competently and safely perform the assigned tasks,<sup>56</sup> has been a “coping mechanism” used by many countries in response to chronic shortages of health care workers.<sup>57</sup> In Lusikisiki, South Africa, for example, the function and associated power to initiate ARV treatment was shifted to nurses.<sup>58</sup> Some countries have trained non-physician health care workers in various surgical procedures such as abscess drainage, hernia repair, and caesarian sections. In Burma and the Philippines, volunteer health workers use village-based microscopy to diagnose malaria.<sup>59</sup>

Although there has been apprehension in the United States and other developed countries about the impact of task shifting on quality of care and patient outcomes,<sup>60</sup> the evidence shows it can be successful for many health interventions. For example, successful task shifting from non-specialist physicians to nurse practitioners and physician assistants for HIV care suggests that preconditions for positive outcomes include high levels of experience and focus on a single disease.<sup>61</sup>

Task shifting should be more than an emergency response to the health worker shortage; all health system planning should be conducted with an eye to reviewing whether health care workers are performing tasks that fit their skill level and whether there are tasks within the position description of one type of health worker that can be performed by a health worker at a lesser skill level. In some cases, a health worker who is less expensive to train and in greater supply could adequately respond to public health needs.<sup>62</sup>

Continual changes in knowledge about the most effective health interventions, the development of new pharmaceuticals, and the availability of new technologies all point towards the need for ongoing evaluation of the potential for task shifting. Many countries have not fully considered how task shifting could affect the number and mix of health workers, including community health workers and volunteers, required in their health system. They have therefore not modified their regulatory provisions to enable task shifting or educating health professionals about how task shifting can be used in clinical contexts.<sup>63</sup>

According to the President’s Emergency Plan for AIDS Relief (PEPFAR), developing countries often have rules that prohibit the most productive and efficient use of workers even though modern work rules permitting task shifting to nurses or lay workers could increase productivity by 30% or more.<sup>64</sup> Médecins Sans Frontières cites national barriers to shifting tasks to lower level health staff as contributing to the health workforce shortage for HIV/AIDS treatment.<sup>65</sup>

However, it is not just in countries with critical health workforce shortages where task shifting should be considered. This is a policy approach that has relevance in all health care systems. If rich countries were to undertake task shifting on a systematic basis, they may find their

shortage of particular types of health care workers is not as great as originally perceived and they are able to more easily create their own health workforce, rather than rely on migrant labor. Moving tasks from highly specialized medical practitioners to less specialized but competent workers would also result in both time and cost savings because the latter group requires less time to train and is less costly to reimburse. Finally, task shifting improves health care quality and efficiency as it enables health workers to use their time to focus on treating the patients who require their level of specialization most.

As part of the task-shifting model, real potential lies in incorporating greater numbers of community health workers (CHWs) into the health workforce. CHWs are often associated with health systems in poor or developing countries. However, recent research suggests that there are great gains to be made in the United States through the use of CHWs. In the United States, an accepted definition of a CHW is as follows:<sup>66</sup>

A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy.

It is accepted that “CHWs are effective in large measure due to the cultural, linguistic, ethnic, and/or other experiences they share with the populations they serve.”<sup>67</sup> The ability of CHWs to reach vulnerable and isolated groups is based on the attributes and experiences the CHW shares with the target population.<sup>68</sup>

A valuable review by the Massachusetts Department of Public Health (MDPH) of research findings on the impact of CHWs on health disparities, access to health care services, health care costs, and quality of health care services “provides cause for confidence” that improvements in each of these areas may be achieved through the use of CHWs for the following tasks:<sup>69</sup>

- Assisting individuals and families to obtain and maintain health insurance;
- Increasing access to and use of preventive education, screenings, and treatment services;
- Encouraging the use of primary care and medical home models;
- Reducing unnecessary use of urgent care;
- Improving management of chronic diseases such as diabetes and asthma and related health conditions, including high blood pressure; and
- Strengthening patient health literacy and culturally competent provider practices.<sup>70</sup>

There appears to be considerable scope for developing the CHW workforce in the United States. To do so would require addressing various obstacles that currently impede the growth of this cadre of health worker. The MDPH identified that CHWs are not fully recognized as legitimate health care professionals; CHWs are still in the process of defining their knowledge base and scope of practice; CHW training and education opportunities are neither consistently nor widely available across the United States; certification processes are nonexistent in most states;<sup>71</sup> funding for CHW positions is insecure; and wages for CHWs are low and turnover is high.<sup>72</sup> Despite these challenges, there is some support for CHWs at the national level as seen in the recent health care reforms that offer funding for organizations to employ CHWs. An increased role for CHWs in the US health workforce could be highly beneficial to the country.

#### **FINANCING THE HEALTH WORKFORCE**

There is a chronic lack of financial investment and stewardship in the education and employment of health care workers. The failure of governments and other actors to make a substantial financial investment in education and employment of health care workers is a key factor in national and global shortages. Many governments have devoted limited public funding to the health sector and insisted that mainly private finance be used to gain access to educational and health care services. Policymakers should ensure that the health care workforce meets the country's health needs taking into account both private and public resources.

#### **Lack of Public Resources to Support Health Worker Education**

In many countries, there has been serious, long-term government underfunding of the necessary educational infrastructure for training health care workers. Although the private sector plays an essential part in financing the health system, strong public investment and financial stewardship are also vital. Resources have not been committed to construct or upgrade buildings or equipment, secure sufficient clinical sites for training, support increased residency places for medical graduates, offer competitive terms and conditions to attract and retain teaching faculty, graduate secondary school students who are equipped to pursue further study,<sup>73</sup> and support students to attend health care worker education programs.<sup>74</sup> Governments have been unwilling and/or unable to provide the funds necessary to make health workforce education available at the level required for national workforce self-sufficiency.

In simple terms, in most countries, far too few people are being trained to be health workers. For example, Africa is producing only 10%–30% of the number of health care workers it requires.<sup>75</sup> The situation is not that different in the United States, which has a massive present and projected future health worker shortage,<sup>76</sup> with an ageing workforce.<sup>77</sup> For example, thousands of students want to complete nursing degrees, but there exists inadequate educational capacity to accommodate these students;<sup>78</sup> in 2006, the United States produced only 136,621 new nurse graduates.<sup>79</sup>

Nursing shortages are among the most serious problems in the US health workforce. Nursing education has been, and remains, subject to severe financial constraints. Even with the increased spending on nurse education as part of the US health care reforms, it seems likely that there will continue to be shortages in nurse education opportunities. The result is there are not enough spots in nursing schools to train the skilled workers so badly needed.<sup>80</sup>

The level of federal funding for nursing schools is low,<sup>81</sup> with states funding most nursing education. Nursing students tend to finance their own education,<sup>82</sup> and very few qualify for government loans or scholarships.<sup>83</sup> Nursing schools find it difficult to attract graduate-degree nurses to serve as faculty members, as nurses with such qualifications can receive higher salaries in well-paying clinical care roles.<sup>84</sup> Without qualified faculty, it is not possible to offer courses to students. Fiscal constraints and/or differing priorities by academic leadership also limit the capacity of nursing schools to expand their infrastructure to accommodate more students. Capital investment is also insufficient to establish new nursing schools to meet accreditation standards.<sup>85</sup> Limited government support for education and the requirement of private student finance also cause people who may be eligible to enroll in courses—and who would become excellent nurses—never to apply for tertiary education.<sup>86</sup>

Many nursing schools are using technology in innovative ways to expand teaching and learning capacities,<sup>87</sup> such as webcasting lectures to a large number of students at campuses spread across a wide geographic area, using clinical “simulation” centers,<sup>88</sup> and entering agreements with local health care service providers to secure clinical and other opportunities for students.<sup>89</sup> However, these strategies must be accompanied by a change in funding priorities if shortages are to be alleviated.

### **Creating Employment Opportunities for Health Workers**

Even where there are an appropriate number and mix of health workers trained, there may not be jobs available for them in their country of origin, despite the population experiencing widespread unmet health needs. The existence of jobs for health care workers depends on money being available to pay their salaries and other benefits.

Governments that continue to publicly fund health care services for some or all of their inhabitants may limit their health care budgets, making them unable to employ the number of health care workers required to deliver health services to the community. In Mozambique, for example, some newly graduated nurses waited four years to be employed by the government, despite workforce shortages being one of the major obstacles to nearly 234,000 people getting access to ARV treatment.<sup>90</sup> Similarly, in the Philippines and China, there are surplus unemployed nurses. Despite a serious unmet need for health services in both countries, there are no jobs available for many trained nurses.<sup>91</sup>

In many countries, people are expected to use private finance, either personal funds or private health insurance, to access health services. The private sector will only engage the number of health care workers needed to meet the demand from clients who can pay for services. This means that the private sector may not be able to offer employment to all of the health workers who are available for service.

## **INNOVATION IN NURSING EDUCATION**

---

Professor and Dean Emeritus Alexia Green of the Anita Thigpen Perry School of Nursing at Texas Tech University Health Sciences Center had the following to say about innovation in nursing: “Serving the vast area of the state of Texas requires innovation, recognition of many challenges, and determination. Innovation must focus on developing and prototyping new models of nursing education in order to provide career enhancing and career laddering opportunities; expanding the range of teaching technologies, particularly those that focus on clinical simulation, distance education, and online course delivery; creating new methodologies to assess, track, and document clinical competence of students; and evaluating and disseminating new teaching technologies and innovations. Challenges abound, including inconsistent revenue streams to schools, overworked and underpaid nursing faculty, faculty vacancies, competition for clinical learning sites, as well as the intense need to constantly improve and update curricula. As a border state, Texas struggles to meet the workforce needs of new populations of Texans. As educators, we also struggle to prepare a workforce that is culturally competent and representative of the emerging minorities—Hispanics. All of these challenges are occurring as the demand continues for more graduates. Yet, we proceed with determination.”

### **Serious Financial Constraints in Poor Countries**

In many low- and middle-income countries, the capacity for government to raise the necessary budget for the education and employment of health care workers is limited, sometimes due to internal factors such as corruption, poor governance, nepotism, and inefficiency in public services.<sup>92</sup>

External factors may also play a large role. There is serious criticism of the role played by rich states in keeping low-income countries poor by maintaining questionable trade policies, neutralizing aid impact by requiring services and goods to be provided by the donor country, selling arms to leaders who use weapons to sustain their corrupt power, and providing aid to unscrupulous governments that divert the aid to serve their own—and not their population’s—needs.<sup>93</sup>

In 2001, members of the African Union committed to dedicate 15% of their annual national budgets to the health sector, but only a few countries are on track to achieve this goal.<sup>94</sup> Even where countries are spending 10% of their budgets on health, which is equivalent to the level of expenditure by many Organisation for Economic Co-operation and Development (OECD) countries, this will be insufficient in absolute terms to meet their burden of disease.<sup>95</sup>

## **POVERTY REDUCTION AND FAIR TRADE**

---

Professor Solomon Benatar, University of Cape Town, had the following to say about poverty reduction and fair trade: “While governments of rich countries claim to have a commitment to poverty reduction, trade rules reflect double standards on freedom of trade and lock poor people out of fair trade benefits in global markets. Wealthy countries spend \$1 billion every day on agricultural subsidies, with the result that surpluses are dumped on world markets at low cost, undermining the livelihoods of millions of smallholder farmers in poor countries. When developing countries export to rich country markets, they face tariff barriers four times higher than those encountered by rich countries. These barriers cost them \$100 billion a year. If Africa, East Asia, South Asia, and Latin America were each to increase their share of world exports by 1%, resulting gains in income could lift 128 million people out of poverty. In Africa alone, this would generate \$70 billion—approximately five times what the continent receives in aid.”<sup>96</sup>

In some countries, health workforce development has also been constrained by macroeconomic policy, which severely restricts all public expenditures.<sup>97</sup> In relation to the health workforce, this means hiring capitations, salary freezes, and moratoriums on purchasing of new capital or other equipment.<sup>98</sup> The restrictions may specifically include a cap on salaries for the public sector, such that even if funds for salaries are available from private sources, the funds cannot be expended for salaries in excess of the cap.<sup>99</sup>

Some of these constraints are country-led, but donors, especially the World Bank and the International Monetary Fund (IMF), impose others as a condition of loans or debt relief. Such a requirement by the IMF was the reason for Mozambique’s inability to employ newly graduated nurses for four years.

It should also be observed that economic failures in other sectors have ramifications for building a sustainable health workforce. For example, without solid roads, a reliable energy generation and supply system, good information technology and telecommunications capability, accessible primary and secondary education, a secure water and food supply, and basic sanitation, a country will not be able to produce and maintain the supply of workers, including health workers, it needs to function.<sup>100</sup>

## Inadequate Investment by International Donors

Many low- and middle-income countries receive international health assistance from donors including states, multilateral organizations, nongovernmental organizations, and public-private partnerships such as the Global Fund to Fight AIDS, Tuberculosis and Malaria. Donors often find that inadequate human resources pose major obstacles to achieving their mission.<sup>101</sup> Although they may be willing to finance the purchase of drugs and equipment, bring in some of their own workers, or employ local workers to provide services, donors have been largely ineffective in strengthening overall health system capacity in partner countries.<sup>102</sup> Donors have been reluctant to fund or offer preservice health worker education to local people, and they have been unwilling to fund the employment of more local health care workers in the general health system.<sup>103</sup>

Although health system strengthening is becoming a major concern of international agencies, donors, and public/private partnerships, much still needs to be achieved.<sup>104</sup> A prime example is the President's Emergency Plan for AIDS Relief (PEPFAR), even though health system development was an integral part of PEPFAR's 2008 reauthorization.<sup>105</sup> The Institute of Medicine (IOM) found PEPFAR's efforts to build health systems to be seriously inadequate. Despite PEPFAR having a stated commitment to health system strengthening, spending over \$350 million on health workforce development in 2006, and training or retraining more than 50,000 people,<sup>106</sup> the IOM found that it had not done enough to build the supply of health care workers in PEPFAR program countries.<sup>107</sup>

Donor training of existing health care workers, such as in the treatment of HIV/AIDS, is undoubtedly beneficial to the community. But many countries have too few workers to deliver the basic health care required by the community before the rollout of new treatment regimens. The training of health care workers to deliver more services can bring treatment efficiencies, but it can also impose a huge burden on overworked staff to deal with a greater range of health problems and even more patients. The effect may be the diversion of health worker time from indigenous health concerns to donor-identified health priorities.

At worst, international health assistance programs can deprive local health systems of staff who are attracted by higher wages, better conditions, and specialist training to health clinics funded and operated by donors.<sup>108</sup> The maldistribution of health care workers within a country can be severely exacerbated when workers take "new and lucrative job opportunities that have emerged for doctors and nurses with nongovernmental organizations (NGOs) and foreign aid agencies."<sup>109</sup> For example, in Ethiopia, a government public health specialist in Addis Ababa could earn four to five times more by joining an NGO.<sup>110</sup> In Malawi, there were 30 nurse graduates in 2000–2001, 2 of whom went to the public sector, while the remaining 28 went to NGOs, where the pay was much higher.<sup>111</sup>

Furthermore, donor programs tend to employ health care workers to treat the diseases selected as the programmatic focus by the donors. Very few donors fund the employment of health care workers to work within primary care or the public health system to address the overall disease burden

affecting the population. A notable exception has been in Malawi, which secured financial support for its emergency human resources plan for the health sector; it reached a special agreement with the IMF to increase health worker salaries without changes to the entire civil service wage bill.<sup>112</sup>

#### **A SUSTAINABLE HEALTH WORKFORCE**

The inability of public and private sector health care employers to create safe, satisfying, and rewarding work conditions is a significant factor in the human resources shortage (see figure 8). Health care professionals, like other workers, are likely to reduce their hours at, or leave, workplaces that do not provide proper working conditions.<sup>113</sup> Consequently, health care workers often leave stressful rural placements or positions in impoverished areas. Some health care workers move to the cities or to NGO employment. Others migrate abroad in pursuit of a better work environment, while others abandon the health profession entirely.<sup>114</sup> At a time when many countries are failing to produce sufficient numbers of new health workers, it is essential that they take urgent steps to secure the existing pool of workers by addressing the avoidable causes of attrition.

It is an insupportable waste of public and private resources for trained health care workers to leave the profession because of inadequate working conditions. The exodus of health workers from

**FIGURE 8. WORKPLACE FACTORS THAT CONTRIBUTE TO ATTRITION FROM THE HEALTH WORKFORCE**

---

- Poor/late remuneration
- Ill health among health workers
- Long hours/no holidays
- Large workloads and too many patients
- Lack of flexibilities for ageing workers or workers with family responsibilities
- Few health co-workers
- Fear of being unable to care properly for patients
- No medicines or equipment
- Disorganized health management
- No mentoring or supervision
- Poor access to training and development
- Few opportunities for promotion/career progression
- Workplace violence
- Loss of morale

the profession deprives the community of much needed health services, and may also mean that there are insufficiently experienced workers to provide professional leadership and to teach in training institutions.<sup>115</sup> Some barriers to an increased workforce are costs, but others relate to workplace structures and management attitudes.

### **Poor Remuneration**

A key issue for health care workers is poor remuneration.<sup>116</sup> Worker salaries in poor and middle-income countries are often very low,<sup>117</sup> and many workers wait months to receive their salaries.<sup>118</sup> It is impossible for many health care workers to receive a “living wage” for their work. In these circumstances, workers reduce their hours in the health sector to work in other, better-paying jobs.<sup>119</sup> Others try to supplement their earnings by collecting “per diems” for attending (possibly unnecessary) off-site training courses<sup>120</sup> or by demanding additional patient payments or illegally selling drugs and equipment. Workers’ motivation often wanes when they feel unrewarded for their work and, consequently, absenteeism increases.<sup>121</sup> This leaves the facility short-staffed and exacerbates workplace challenges.

### **Workplace Conditions**

Workplace conditions have a similar negative impact on employee retention. In many low-income countries, a scarcity of medicines and equipment (including protective equipment) make it very difficult to provide quality patient care.<sup>122</sup> In Zimbabwe, for example, nurses work without gloves or an adequate drug supply, while food for patients is rationed.<sup>123</sup> In these conditions, patients are less likely to recover and more likely to die. It is stressful for workers not to have the basic “tools of the trade” available to them and demoralizing to know that their professional efforts are impaired. Workers will be reluctant to move to rural areas that have even worse workplace conditions, as well as the absence of a social infrastructure such as housing, utilities, transport, and police services.<sup>124</sup>

Workers are also burdened by long hours and very heavy workloads, which produce fatigue and burnout.<sup>125</sup> In Africa, many staff work double shifts and through holidays in order to make up for staff shortages.<sup>126</sup> The shortages of nurses in hospitals in the United States, Canada, and the United Kingdom have resulted in only 30%–40% of nurses surveyed believing there were enough staff to provide high-quality care.<sup>127</sup> Nurses in the United States, Canada, the UK, and Germany reported that there had been an increase in the number of patients assigned to them.<sup>128</sup> Only 30% of these nurses believed that the quality of nursing care was excellent and nearly half believed that quality of care had deteriorated.<sup>129</sup> High proportions were dissatisfied with their jobs.<sup>130</sup> These situations are aggravated by the aggression and violence towards health care workers from some patients and their family.<sup>131</sup>

Many health care workers, particularly nurses, also report dissatisfaction with their workplace culture and management. The reasons for dissatisfaction include their exclusion from workplace

decision making, the absence of valuable supervision and professional mentoring, and poor channels for communication with management.<sup>132</sup> Many health workers also complain about restricted opportunities for career advancement<sup>133</sup> and poor access to quality training and development.

Health care workers also tire of lack of social recognition. Many nurses report feeling that their work is undervalued and denigrated as “women’s work.”<sup>134</sup> The actual or perceived community undervaluing of nurses also affects prospective applicants for education programs. In the United States, there is a push to recruit more men, as well as Hispanics of both genders, into the nursing workforce, which is an important strategy in terms of increasing the size of the nursing profession to meet the demand for health services.<sup>135</sup> Barriers to recruitment of underrepresented cohorts can be made more difficult by unsupportive community attitudes towards the profession.<sup>136</sup>

There are sometimes rigid workplace rules that, if removed, could facilitate workers remaining in the profession. For example, the United States has an ageing nurse workforce. More needs to be done to accommodate the specific occupational needs of these older nurses and enable them to extend their working life. Older nurses are more likely to be injured and may take longer to recover from injuries. There are strategies that could be used to assist nurses to avoid injuries, such as assistance with lifting patients.<sup>137</sup> Other ways to extend the working life of nurses would be enhanced retirement benefits, “phased retirement” with shorter working weeks and options for breaks in service, and rewards for experience and long service.<sup>138</sup>

### **III Health among Health Workers and Their Families**

Disproportionate burdens of disease and early death among health care workers and their families have a devastating impact on the health workforce in many resource-poor countries.<sup>139</sup> This remains a critical challenge in solving the global shortage of nurses and other health professionals.<sup>140</sup> The impact is felt most powerfully in Sub-Saharan Africa with a high prevalence of HIV/AIDS.<sup>141</sup> In South Africa, 14% of health care workers are infected with HIV.<sup>142</sup> In Lesotho, Mozambique, and Malawi, death is the leading cause of health worker attrition, with a significant proportion being HIV-related.<sup>143</sup> Death is a reason for 38% of exits from the Zambian health workforce.<sup>144</sup>

Health care workers are at risk of HIV, hepatitis B, and other blood-borne diseases due to the lack of workplace safety practices.<sup>145</sup> The stress of a heavy workload under adverse conditions, with many patient deaths, may also exacerbate mental health problems.<sup>146</sup> Health care workers, like other members of their communities, cannot always access the health goods and services they need. Many health workers also have to take leaves or exit the workforce altogether to care for sick family members. Yet, the state and health care facilities could do much more to safeguard health workers from avoidable illness or injury. For example, establishing health clinics for health care workers and their families has reduced absenteeism. Failing to take such steps contributes to worker attrition and shortages.<sup>147</sup>

## INTERNATIONAL MIGRATION AND RECRUITMENT OF HEALTH WORKERS

The migration of health care workers to developed countries exacerbates human resource shortages. The OECD finds that international migration of health care workers is “neither the main cause nor would its reduction be the solution to the worldwide health human resources problem.”<sup>148</sup> In fact, African-born doctors and nurses working in OECD countries represent no more than 12% of the total estimated shortage for the region. In Southeast Asia, which suffers the largest absolute shortage of health care workers, the percentage is even lower at 9%.<sup>149</sup>

Migration is therefore only one, among many, contributing factors to the global shortage of health care workers. It is an age-old phenomenon, the freedom (codified under international law) of every person to leave his or her country of residence.<sup>150</sup> Health worker migration often has enormous benefits for individuals and their families, as well as for the source and destination communities. It does nonetheless have an adverse impact on health system capacity in many countries.

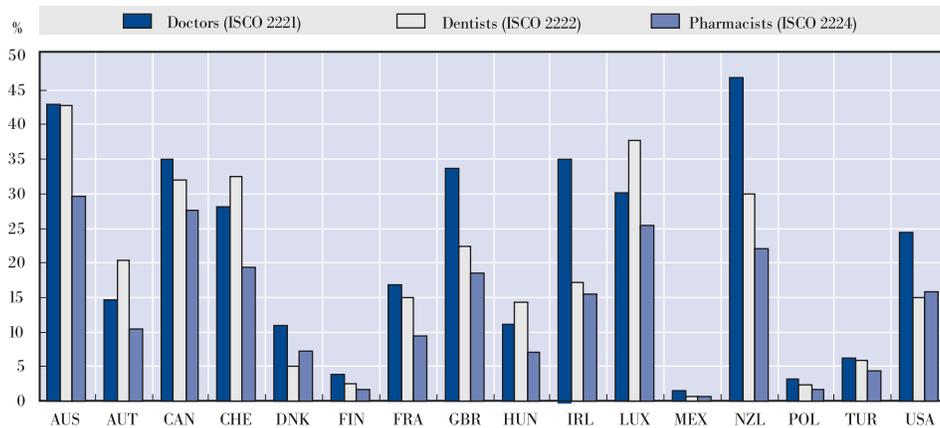
It is therefore important to understand the factors that drive health care workers to migrate. As with the inability to retain health care workers in the profession, migration of health care workers is often only a symptom of deeper problems.<sup>151</sup> Solving these problems will help to encourage health care workers to remain in the profession and in the country. Additional negative factors that influence the incidence and patterns of health care worker migration include country policies regarding national self-sufficiency, visa availability, and active recruitment by state or private actors.

### Health Worker Migration Data

It is difficult to form a complete picture of health worker migration: Who are these migrant health workers? From where are they coming? Why are they leaving their country of origin? Where are they arriving? Are they staying? Are they returning home? Are they moving on to another country? Are they working in equivalent positions in the destination country? What terms and conditions of employment are provided to them? Would they prefer to work in their home countries? Would they like to stay permanently in the destination country?

The lack of reliable and complete data has caused “misunderstanding about a complex phenomenon and has hindered the development of effective policy responses.”<sup>152</sup> There tends to be more data in receiving countries about arriving health professionals and less data in source countries (except in the Philippines) about departing health professionals.<sup>153</sup> The WHO finds that migration within the African region remains “largely undocumented,” and that there are “major gaps” in data in the Eastern Mediterranean region where there is heavy reliance on migrant labor.<sup>154</sup> This lack of data renders it difficult to understand the impact of migration on source countries. Even if country data exists, international comparison is hard due to inconsistencies in the classification of education and skills.

**FIGURE 9. SHARE OF FOREIGN-BORN AMONG PRACTICING DOCTORS, DENTISTS, AND PHARMACISTS IN SELECTED OECD COUNTRIES, CIRCA 2000**



Source: OECD. 2007. *International Migration Outlook 2007*, page 166, OECD Publishing.

Available at [http://dx.doi.org/10.1787/migr\\_outlook-2007-en](http://dx.doi.org/10.1787/migr_outlook-2007-en).

Despite these limitations, most agree that migration is a long-term global phenomenon, with the migrating population larger than ever before, with the majority of migrating workers being highly skilled.<sup>155</sup>

In OECD countries, on average, 10.7% of employed nurses and 18.2% of employed doctors are foreign-born. In Mexico, Finland, and Poland, only 1.5%–5% of doctors are foreign-born. This is in marked contrast to Luxembourg, the United Kingdom, Australia, New Zealand, Canada, and Ireland, which have between 30% and 47% of foreign-born doctors (see figure 9).<sup>156</sup>

In absolute terms, the United States has the largest number of foreign-born doctors (approximately 200,000 for a population of approximately 307 million), followed by the UK (approximately 50,000 for a population of approximately 61 million), Canada (approximately 23,000 for a population of approximately 33 million), Australia (approximately 20,500 for a population of approximately 21 million), and New Zealand (approximately 4,500 for a population of approximately 4.5 million).<sup>157</sup> When these data on foreign-born doctors are looked at in relative terms, a different picture emerges. Foreign-born doctors are 24.5% of all doctors in the United States, 33.7% in the United Kingdom, 35.1% in Canada, 42.9% in Australia, and 46.9% in New Zealand.

The United States has the largest absolute number of foreign-born nurses (approximately 337,000), followed by the UK (approximately 82,000), Canada (approximately 49,000), Australia (approximately 47,000), and New Zealand (approximately 8,000).<sup>158</sup> In relative terms, foreign-born nurses are only 11.9% of the US nurse workforce, compared with 15.2% in the UK, 17.2% in Canada, 24.8% in Australia, and 23.2% in New Zealand.

In the OECD, many migrating health professionals come from other OECD member countries.<sup>159</sup> Asia is the principal source region for health workers in many OECD countries. In the United States, more than 50% of foreign-born doctors and 40% of foreign-born nurses are from Asia.<sup>160</sup> Nurses born in the Philippines and doctors born in India make up the greatest proportion of the immigrant health workforce in the OECD.<sup>161</sup> Of the 57 countries with “critical” health workforce shortages, India, Nigeria, Haiti, and Pakistan are among the top 25 source countries for health workers migrating to OECD countries. Nigeria and South Africa are the only 2 countries from Sub-Saharan Africa in the top 25 origin countries for doctors and nurses in OECD countries.<sup>162</sup>

African and Caribbean countries are disproportionately affected by migration of their health professionals because of the low number of health care workers in these countries. Most of the countries with expatriation rates above 50% are from the Caribbean and five African countries: Mozambique, Angola, Sierra Leone, United Republic of Tanzania, and Liberia.<sup>163</sup> French- and Portuguese-speaking African countries also have some of the highest expatriation rates of doctors to OECD countries.<sup>164</sup> There are English-speaking countries like Malawi, Kenya, and Ghana, which are cited frequently in international discussions on health worker migration, but their expatriation rates are lower than those of many French- and Portuguese-speaking African countries.<sup>165</sup> However, it should be acknowledged that even if a country has a low expatriation rate, the loss of health care workers may have real impact because of the low density of total health care workers.<sup>166</sup>

### **Why Do Health Workers Migrate? Push Factors**

The WHO concludes that there is “remarkable uniformity” in reasons for health workers migrating (see figure 10).<sup>167</sup> Migrating health professionals are often motivated by the same inadequacies in their employment conditions that cause other dissatisfied workers to leave the profession entirely.<sup>168</sup> These factors must be addressed if the personnel losses to country health systems are to be reduced.

These professional or workplace-specific “push” factors in the health worker’s country of origin may be accompanied by concerns about the country’s political, economic, and social conditions,<sup>169</sup> as well as the presence of war, social unrest, or high crime levels.<sup>170</sup> It is essential to appreciate that many migrant workers are seeking to escape poverty in their home country. They also often leave in search of a more peaceful life for themselves and their families; personal security; the chance to improve their financial position, settle debts, and save for the future; and the opportunity to access higher-quality education for their children and extended family.<sup>171</sup>

Choice of a destination country can also be influenced by similarities in language and educational curriculum, availability of social and cultural support networks, and colonial ties.<sup>172</sup> The UK and United States are of high interest to foreign-educated nurses because of high wages, educational opportunities, and high standards of living.<sup>173</sup> However, the stories told by nurses suggest that most would choose to stay actively employed in their countries of origin if conditions were better.<sup>174</sup> Often, these nurses, usually women, have to leave children and families in order to migrate for work.

The fact that many health workers feel the need to migrate to find more “secure” lives means that they are vulnerable to exploitation in migration and employment. Many are willing to accept unprofessional conduct from recruiters or discriminatory treatment from employers if it means that they can get employment in the destination country.

### **Why Do Health Workers Migrate? The Forces of Globalization**

Health is increasingly understood as a global concern. Humans, animals, and food propel pathogens and disease around the globe. Health-related goods are traded around the world and medical tourism and telemedicine are on the rise. Governments understand that death and disease in one place can have vast economic, political, and social consequences elsewhere. Yet there have been few commitments made under the General Agreement on Trade in Services (GATS) in relation to health care services.<sup>175</sup> However, with transport and technology moving people, goods, and services around the world more rapidly than ever before, there is a growing sense that health services should be an integral aspect of global trade and development.<sup>176</sup>

Global transport and communication make it easier to find jobs, complete the application and visa process, and secure living arrangements in destination countries. Globalization has also brought with it the commoditization of health services, in which health workers see their professional skills as saleable to the highest bidder.<sup>177</sup>

### **Why Do Health Workers Migrate? “Magnet” Countries with Unmet Health Workforce Needs**

Health care workers are more willing to migrate to countries with a high demand for human resources. Such demand exists in many countries that have failed to adopt and implement policies of national self-sufficiency.<sup>178</sup> As described earlier, this demand exists around the world, in rich and poor countries alike. However, it is important to stress that, while health care workers are moving in and out of both rich and poor countries, workforce shortages threaten the public’s health in resource-poor countries.

Richer countries do have considerable capacity to meet their own demand for human resources with adequate planning and resource allocation. However, most states are not using their capacity, but instead rely on migrant labor. Rich countries do so despite the knowledge that recruitment will seriously harm the health systems of states that are already heavily burdened and very weak.

**FIGURE 10. "PUSH" AND "PULL" FACTORS THAT MAY INFLUENCE HEALTH WORKERS' DECISION TO MIGRATE FROM THEIR COUNTRY OF ORIGIN FOR EMPLOYMENT IN A NEW COUNTRY**

**Push Factors**

- Poor workplace conditions
- Poverty and economic instability in home country
- High crime levels
- Individual desire for a better life
- Political instability in home country
- War and civil unrest
- Poor employment and educational opportunities in home country
- Surplus of health workers in home country

**Pull Factors**

- Strong demand for health workers in destination country
- Recruiters to assist with migration
- Promise of better pay and conditions and more opportunities for professional education and career advancement
- Agreeable migration policy in destination countries
- Apparent ease of movement of information and people around the world
- Promise of safe, peaceful, and prosperous life for self and extended family
- Colonial/language/cultural ties between source and destination countries

Although developed countries usually maintain high professional standards that migrant health care workers must satisfy in order to work,<sup>179</sup> they often issue large numbers of visas<sup>180</sup> and turn a blind eye to unethical private recruitment practices. The availability of a high number of visas for health care workers may reflect the fact that a country is not doing enough to fulfill its human resources needs and is prepared to use migration policy to achieve health workforce coverage.<sup>181</sup>

**Why Do Health Workers Migrate? Recruitment of Health Workers**

International recruitment services abound in response to increased demand for health care workers. Most companies focus on recruitment of nurses, with minimal activity in other practice areas.<sup>182</sup> Approximately half the migrant nurses entering the United States are actively recruited.<sup>183</sup>

In 2007, there were 267 US-based firms specializing in the recruitment of foreign-educated nurses, with 5 firms being publicly traded.<sup>184</sup> These recruiters are active in 74 countries, particularly in the Philippines, India, the United Kingdom, and Canada. A recent AcademyHealth report identified 28 US companies active in Africa, and 40 companies self-reporting that they were actively recruiting nurses from “disadvantaged regions” around the world.<sup>185</sup> The recruitment companies provide visa and immigration processing, credentialing, and transportation to the United States. Many provide additional services such as preparation for credentialing examinations, accommodations, food vouchers, and acculturation training.<sup>186</sup>

Recruitment company profits vary and can be between \$5,000 and \$15,000 for a “placement” nurse and \$50,000 to \$55,000 for a “staffing” nurse.<sup>187</sup> Recruitment strategies involve touring recruitment workshops; advertising in newspapers, journals, and the Internet; and contacting health care workers through personal emails and text messages.<sup>188</sup> Recruiters often charge a fee to the migrating worker,<sup>189</sup> and the treatment of foreign-educated nurses by recruitment services may also fall below international labor standards.<sup>190</sup>

Some countries, like the Philippines, support recruitment by educating large numbers of nurses for “export.”<sup>191</sup> Some US employers find it more cost-effective to employ foreign-educated nurses than to enter the competition for domestic personnel.<sup>192</sup> Developing countries struggling to repair their decrepit health systems often argue that recruiters are undermining their efforts by drawing on workers who would otherwise stay in their home country.<sup>193</sup>

Empirically, it is not clear whether, and to what extent, recruitment significantly increases health worker migration, but recruitment practices themselves can be evaluated. If a worker *decides* to leave his or her country of origin and the recruitment service merely assists with making arrangements, the recruiter’s conduct does not appear to be unethical. However, if the recruitment service attempts to convince or coerce workers to migrate, there is a problem with the recruiter’s conduct. Although workers have autonomy to resist undue influence, recruiters sometimes engage in predatory practices that vulnerable workers are unable to oppose. Rich states and their stakeholders should avoid creating obstacles for poorer states to build sustainable health systems<sup>194</sup> and refrain from using recruiters that engage in unethical and predatory conduct.

## **CONCLUSION**

The causes of a human resource shortage must be closely examined at the country level to develop the best strategies to increase the pool of skilled human resources. Although the exact causes of the shortage are unique to each country, any analysis should look at both the demand and supply sides of the problem.

In many countries, there is increasing demand for health worker services, and thought should be given to ways to accommodate and possibly reduce this demand. On the supply side, there will often be common features driving workers out of the system: lack of sufficient planning for health

workforce capacity, lack of financing for health worker education and employment, and unsatisfactory working conditions. Although health worker migration is not the main reason for the global shortage, it exacerbates the problem in many countries. Countries that allow and encourage private companies to actively recruit migrant workers contribute to the situation.

This report draws on these causes of the shortage in the next two chapters. Chapter 4 considers the actors—governments, health workers, and individuals and communities requiring health services—that have rights, interests, or obligations in connection with the shortage. Chapter 5 offers recommendations for US action to ameliorate the shortage globally, with particular attention to the needs of resource-poor countries.

**CHAPTER 4: TOWARD A US POLICY ON THE  
GLOBAL HEALTH WORKFORCE SHORTAGE—RIGHTS,  
INTERESTS, AND OBLIGATIONS**

This chapter maps and evaluates the rights, interests, and obligations of some of the major actors who are connected to the global health worker shortage. The analysis lays the foundation for the recommendations for US action in chapter 5.

The chapter focuses on health workers, patients, the US states and federal government, and non-US governments. It briefly describes the legal rights and responsibilities of these key actors. International law has so far proven to be an insufficient motivator for decisive US intervention in the health workforce crisis and should have greater influence. International law, although difficult to enforce, is legally binding and establishes normative standards. International law is a reflection of underlying moral choices made by the international community about how individuals, communities, and governments should behave in a global system.

The chapter also discusses “soft law,” which is not legally binding, but which has normative force. Ethical values are fundamentally important. However, it is also important to understand that the United States, like other states, has critical national interests that compete with effective solutions. Unless proposed solutions acknowledge and balance these competing priorities, policymakers—with limited budgets and a multitude of demands—will not support action to reduce the global shortage of health workers.

Many other actors are linked to the shortage and their positions should also be taken into account. These actors include private recruiters, many of which have interests in avoiding extensive regulation. Health care delivery organizations similarly have economic interests in employing a sufficient number of trained health workers to serve their “consumers.” Service organizations operating in developing countries with US aid have interests in having health workers being available to them. Non-health sector businesses also have strong interests in having enough health care workers to keep consumers of their goods and services fit, healthy, and able to generate profits. Colleges and universities that train health workers have interests in possessing the resources and public and private support to improve their capacity to educate health workers. Finally, multilateral organizations (e.g., WHO and the World Bank) and public-private partnerships (e.g., the Global Fund and GAVI Alliance) have keen interests in finding solutions to the human resource shortages, which currently stand in the way of achieving their global health mandates. These public and private sector actors are vital in constructing a holistic response to the crisis.

#### **INDIVIDUALS**

Individuals want to access the services of trained and competent health workers. They want to be able to see their doctor or a maternal health nurse or to have blood work done by a pathologist or to have a tooth cavity filled by a dentist or to get a bed in a hospital. They want these services without having to wait too long for an appointment or to travel too far. They want these services to be affordable.

The public understandably expresses concern if local health systems are understaffed and ill-equipped to serve community needs. People living in poor and chaotic environments are concerned

that their local clinics and hospitals cannot attract and keep health workers. It is particularly upsetting when they see health workers leaving for jobs in cities or in other countries knowing there is a dreadful shortage in their village, town, or country. Although the global poor suffer a disproportionate burden of illness and therefore have greater needs for services, all people—rich and poor—have a right to expect a decent level of health care.

These fundamental human needs and desires are reflected in the international right to health, first recognized in the UN Charter and the WHO Constitution, which states, “The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.”<sup>1</sup> The right is also recognized in many international and regional human rights treaties, with the centerpiece being the International Covenant on Economic, Social and Cultural Rights (ICESCR).<sup>2</sup> Essential to the enjoyment of this right is access to an adequately trained and staffed health workforce.<sup>3</sup>

Most US policymakers, of course, even if they do not recognize a legal right to the conditions for being healthy, understand its moral force. The conditions for a healthy population include a health workforce sufficient to meet the community’s health needs.

## **HEALTH WORKERS**

Health workers have a range of interests and rights that must be taken into account, as well as duties. These interests and obligations may vary between categories of health workers. The interests of health workers are not always easily accommodated in health systems, especially those in a state of crisis, and are often subjugated to political and other interests.

### **Rights and Interests**

Health workers have an interest in, and legal right to, decent and safe working conditions. This right—applicable to all workers and not just health workers—is embodied in the Universal Declaration on Human Rights (UDHR) (Article 23) and the ICESCR (Article 7), as well as numerous treaties of the International Labor Organization. It is because they often lack decent and safe working conditions that health professionals migrate from developing countries.

Many health workers also want to be free to leave their countries of origin and move to other countries for work, education, or improved living conditions. “Everyone shall be free to leave any country, including his own” states Article 12(2) of the International Covenant on Civil and Political Rights (ICCPR).<sup>4</sup> A right to leave one country, however, is not the same thing as having a right to enter another country. A person must be granted the privilege (usually in the form of a visa) to enter another country. Responses to the global health worker shortage should be respectful of the human right of everyone to migrate from his or her country of origin.<sup>5</sup>

Migrant workers are especially vulnerable to abuse, discrimination, and unfairness, both in the recruitment process and in their working and living conditions in the host country. Examples from some foreign-educated nurses in the United States include poor quality clinical orientation by employers; being assigned the least desirable tasks in the workplace; being expected to work overtime; not having home country experience recognized; and misinformation and fraud by recruiters.<sup>6</sup> International law requires host states to prevent and, if necessary, remedy, such inhumane and unequal treatment of migrant workers.<sup>7</sup>

## Obligations

Health workers may also have legal obligations<sup>8</sup> to contribute to the local health workforce for a defined period of time.<sup>9</sup> States may enact laws requesting or requiring health workers to remain in the country for a period of time in exchange for the benefits afforded by the education system. In other words, health workers may have a legal or ethical obligation to repay the state (in effect, the community) for paying for or subsidizing their education. The health worker has acquired privileges and benefits through his or her state-funded education and should return this “good” through public service to the community.<sup>10</sup> The worker either serves the requisite period or reimburses the state for educational benefits received.

Doubts have been expressed, however, about whether imposing a legal obligation is valuable, given that the obligations are rarely enforced by the country of origin or honored by the country to which the bonded worker is seeking to migrate.<sup>11</sup> This latter point is of particular relevance to the United States, which should, out of respect for other countries’ health systems, not encourage or permit recruitment of health workers who have legal obligations to their home countries.

## GOVERNMENTS

This section examines the interests and obligations of governments through four lenses: governments and the health of their people; governments and the health of other states’ people; governments and the use of migrant health worker labor; governments and health worker emigration.

### Governments and the Health of Their People

*Interests.* Governments have a fundamental interest in, as well as an obligation to, maintaining an effective health system to provide services to its inhabitants.<sup>12</sup> A major part of having an effective health system is the health workforce, which must be competent and sufficient in size to carry out the health functions required by the society. Most governments recognize that having an adequate health system is essential to the creation of conditions that are necessary<sup>13</sup> for their people to be healthy.

Governments may be genuinely committed to seeing their people healthy and flourishing, not only out of a moral concern for their people's well-being but also for the efficient functioning of society. There are also economic consequences of ill health that go well beyond the individual and have broad ramifications for the country.<sup>14</sup>

*Obligations.* Governments have an obligation to create the conditions for good health, including an effective health system. This arises, firstly, from the theory that the common defense, security, and welfare of the population are among the democratic state's primary obligations—goods that can be achieved only through collective action. Elected public officials owe their constituents protection against natural and manmade hazards.<sup>15</sup> This protection involves prevention of health hazards, amelioration when the hazards occur, and a commitment to continually seeking improvement in both prevention and response. A key part of the fulfillment of this obligation is the training and engagement of skilled personnel to conduct prevention and response activities.

Secondly, states are obligated under international law to build adequate health workforces to serve their people. Well-accepted in international human rights law is Article 2(1) of ICESCR requiring states to “take steps . . . to the maximum of its available resources [for] . . . achieving progressively the full realization” of the right to health.<sup>16</sup> There are strong statements that the state must *immediately* take action to realize the rights in the ICESCR.<sup>17</sup> The state must take steps that are “deliberate, concrete and targeted,”<sup>18</sup> moving “as expeditiously and effectively as possible”<sup>19</sup> toward the progressive realization of the right to health using the strategies most likely to be successful as confirmed by health research.<sup>20</sup> Essential to fulfilling this obligation is building health workforces sufficient to achieve health goals and to deliver the health goods and services required by the right to health.<sup>21</sup>

### **Governments and the Health of Other States' People**

While a state's primary interests and obligations are in having an adequate health workforce for its own people, it also has an interest in good health in other countries, including an effective health system to deliver public health and clinical health services to their people. States have an accompanying obligation to assist resource-poor countries in building their health workforce capacity.

*Interests.* States readily understand that the outbreak and spread of infectious diseases in one state can quickly and easily find their way to other states. A state's interest in global health—in the situation outside a state's borders—is generally connected to the state's desire to protect its own people, territory, and economy. It is axiomatic that infectious diseases do not respect national borders. Human beings congregate and travel, produce and consume goods, live in close proximity to animals, and pollute the environment. This constant cycle of congregation, consumption, and movement allows infectious diseases to mutate and spread across populations and boundaries, especially if there is an ineffective health system added to the mix. These human activities have profound health consequences for people in all parts of the world, and no country can completely insulate itself from their effects.<sup>22</sup>

In addition to protecting their territory from emerging infectious diseases, states have an interest in strengthening health systems in other countries so that economic and political troubles do not spill over from “unhealthy” states and harm them. The problems that flow from a dysfunctional health system and ill health do not stop at the country’s border and can have an impact on other countries.

At the same time as poor health in one country can threaten another country, a willingness to offer technical and financial assistance to other states to build their health systems can have positive ramifications for the donor country and serve its interests. Firstly, it can be a means for the country to demonstrate and promote its values.<sup>23</sup> In relation to the United States, these values include generosity, compassion, optimism, a commitment to the common good, and a wish to share the fruits of US technological advances with other countries around the world that can benefit from them.<sup>24</sup> The provision of assistance is also a means for a country to project a positive and admirable image to the world and to garner the respect and trust of other nations. A program of activities to support other states’ health systems may bolster a country’s prestige, influence, and prerogative to lead—a concept referred to as *global health diplomacy*.<sup>25</sup>

*Obligations.* There are powerful humanitarian reasons for the United States and other wealthy countries to help the world’s poorest and least healthy people, including assisting with the building of health systems. An ethical obligation to assist with health system development could be said to lie in the fact of the intolerable health disparities between rich and poor countries. The poor have disproportionately high rates of morbidity and premature mortality. Health disparities across continents render a person’s likelihood of survival drastically different based on where he or she is born. These inequalities have become so extreme and the resultant effects on the poor so dire that health disparities have become a defining issue of modern society.<sup>26</sup>

However, naming a situation as unjust or unethical does not answer the more difficult question about whether there is a corresponding obligation to do something about global inequalities. Even scholars who believe in the just distribution of resources frame their claims narrowly and rarely extend them to international obligations of justice.<sup>27</sup> Their theories of justice are “relational” and apply to a fundamental social structure that people share. States may owe their citizens basic health protection by reason of a social compact. However, positing such a relationship among different countries and regions is much more complex.

That said, increasingly, the global community is sharing a common social, political, and economic structure. Within this structure, the health of all countries is increasingly interconnected. The health of one state has consequences for other states. The acts of one state in relation to health have ramifications—positive or negative—for other states. States are demonstrating that they appreciate these health connections. They have negotiated and agreed to a range of international law norms in areas extending from infectious diseases and tobacco use to access to essential vaccines and medicines.<sup>28</sup> This body of law has similarly created a network of international organizations that require the involvement, cooperation, and support of states, including the World Health Assembly, the World Trade Organization, the World Bank, the Group of Eight (G8), and the North Atlantic Treaty Organization (NATO).<sup>29</sup>

Political leaders have made numerous pledges of international development assistance, including substantial commitments to the Millennium Development Goals;<sup>30</sup> the Global Fund to Fight AIDS, Tuberculosis and Malaria; and PEPFAR.<sup>31</sup> It may be that in this environment, where the health of each country is intimately connected to the health of other countries, there is an ethical responsibility imposed on wealthier countries to serve other countries according to their resources, and an expectation in poorer countries that they will be offered help according to their needs.

This sense of ethical obligation is reflected in some parts of international law providing a basis for the argument that states have a *legal* duty to assist other countries in developing their health workforces to meet their people's health needs. For example, Article 2(1) of the ICESCR requires that states "undertake to take steps, individually and through international assistance and cooperation, especially economic and technical, to the maximum of its available resources, with a view to achieving [the right to health]." A similar obligation is found in Article 44 of the WHO's International Health Regulations<sup>32</sup> and Article 3.2 of the WHO Code.<sup>33</sup>

### **Governments and the Use of Migrant Health Workers' Labor**

There are many governmental interests that are served by using migrant health workers to meet society's needs for an adequate health workforce. These interests pose a major obstacle to states reducing their reliance on migrant health workers. The availability and use of this labor source, however, should give rise to a set of obligations that are not adequately fulfilled at present.

*Interest in meeting the local labor shortage with migrant workers.* Many governments regard it as desirable to fulfill some of its workforce needs with migrant labor. This is particularly the case where there is a significant domestic shortage of a type of labor that will take some time to create through the training and preparation of a local labor supply. The arrival of migrant workers produces immediate relief for some of the shortage. In some instances, the recruitment of migrant labor may also be less costly than the creation of a local supply of labor.

Another advantage of overseas recruitment is the government can make the grant of visas conditional on workers having the specific skills that are in demand or being willing to serve in areas where there are shortages.<sup>34</sup> It can be more complex to develop the desired skills in the local labor supply or to induce domestic workers to move to areas where there are deep deficits. The very reason that such geographic shortages exist is because certain poor or remote geographic areas are not sufficiently attractive to local workers. By contrast, foreign-educated health workers can be refused a visa for entry unless they agree to work in certain specializations or geographic areas.

*Interest in supporting the growth of the private sector recruitment industry.* When a country is a magnet for migrant health workers and government makes available a significant (and predictable) number of visas, the country may develop a profitable private sector recruitment industry. A government may have a strong interest in maintaining and encouraging the growth of this industry,

as it creates local jobs and generates considerable income and profits, which, in turn, provide revenue streams for governments through taxation.

*Obligation to pursue a policy of national self-sufficiency.* Although governments may be eager to use migrant labor to address health workforce shortages, a question arises as to whether they have an ethical obligation to pursue a policy of national self-sufficiency. Given the known impacts on poor countries of health worker shortages, there is an ethical obligation to seriously consider a goal of national self-sufficiency. These impacts include death and suffering of people in countries whose health systems are decimated by the migration of health workers. The recent WHO Code also recommends that states should “strive” to “reduce their need to recruit migrant health personnel.”<sup>35</sup>

*Obligation to refrain from recruiting health workers from countries with critical health worker shortages.* States have an ethical obligation to refrain from actively recruiting health workers from countries with critical health worker shortages. Many organizational codes and policies reflect the view that state and non-state health care providers and health industry recruitment companies have an obligation not to engage in active recruitment in certain countries.<sup>36</sup> Governments should regulate or use their visa authority to prevent such active recruitment.<sup>37</sup>

The WHO Code states that member states should “discourage active recruitment of health personnel from developing countries facing critical shortages of health workers.”<sup>38</sup> The United Kingdom Code of Practice goes even further than the WHO Code by stating that “no active recruitment will be undertaken in developing countries by UK commercial recruitment agencies, or by any agency sub-contracted to that agency, or any health care organization unless there exists a government-to-government agreement that health care professionals from that country may be targeted for employment.”<sup>39</sup> “Active recruitment” is not exhaustively defined in the UK Code, but an example is given that suggests a broad interpretation: “a recruitment agency advertises employment opportunities within the UK health care sector and then acts in such a manner as to secure employment for that individual.”<sup>40</sup>

*Obligation to protect the rights of migrant workers.* States have legal obligations to respect, protect, and fulfill the rights of migrant workers under the Migrant Workers Convention and the International Labor Organization (ILO) Conventions. These rights include the right to freedom of information, protection against violence, and equality with nationals of the state in relation to employment, training, and social services. These obligations require the state to take steps to see that these rights are realized for migrant workers. For example, the state is required to regulate third parties, such as health care employers and recruiters, to prevent them from interfering with these rights of migrant workers. The recent WHO Code put these obligations in terms of the principles of transparency, fairness, and equal treatment.<sup>41</sup>

*Obligation to “give back” to source countries.* Another obligation for countries that have drawn on the supply of health workers in other countries to meet their local health workforce needs is to “give back” to countries or, in more legalistic terms, to “compensate” countries that have suffered losses as

a result of the health worker migrating. In many instances, the recipient country will have benefited considerably from the migration of the health worker.

For example, the US health system and all Americans have benefited from the recruitment and arrival of migrant health workers who have filled significant service gaps. These holes in the health system are ones that the government could have addressed through workforce development policies to produce more homegrown workers. States, and to a lesser extent, the federal government, have enjoyed cost avoidance benefits from not adequately financing students and workers in their college and university systems.

At the same time that destination countries have benefited from the supply of migrant labor, the migrants' home countries have suffered considerable losses: the public expenditure (if any) on the health worker's education; the costs involved in training health workers to replace departing workers; the opportunity costs that could have been provided by the health worker if he or she had remained in the home country; the impact on other health workers of the departure of a colleague, including decreased morale and increased workloads; and the overall sustainability of the health system.

Few countries that have benefited from migrant health workers acknowledge the obligation to give back, let alone compensate other countries for their losses, but many do offer development assistance to source countries. Part of this assistance package could be seen as a giving back. Repayment may take different forms, including providing drugs or other goods or services; conducting training or education programs in the source country; making "twinning arrangements" so that health care facilities in source and recipient countries are linked to provide professional development and support services; building medical and nursing schools and health care facilities; creating capacity for the maintenance of medical equipment; supplying health workers to the source country until it can replenish its own health workforce; strengthening health workforces (including remuneration and retention mechanisms); and facilitating easy, low-cost arrangements for remittances to the worker's country of origin.

## **Governments and Emigration of Their Health Workforce**

*Interests in limiting migration.* Many countries wish to limit the numbers of their health workers who are migrating on a temporary or permanent basis. This interest will be most keen in countries where there are already insufficient numbers of workers to staff the available positions in the health sector. Countries with critical health worker shortages understand the need for a functioning health system, as well as their obligations to provide health services to their people. They do not want their efforts to build their health systems to be undercut by the migration of their workers. Their plans for the development of the health system can be set back by migration, in addition to losing the value of their investment in health worker education. A country's interest in retaining health workers may motivate it to focus attention on local health system planning, funding, and improvement in order to encourage health workers to remain. Countries may also work on facilitating the return of health

workers who have migrated. The Philippines, for example, has a program of financial incentives to entice local workers who have migrated to return.<sup>42</sup>

*Interest in facilitating emigration.* Some countries cannot afford to employ their trained health workers; it may be beneficial for their workers to obtain employment overseas in their chosen profession. This avoids a “brain waste” situation, in which workers are not working in the professions for which they have trained and thus not using the skills they were taught, or doing work that involves a significantly different and lesser skill set. Countries may also have an interest in health workers emigrating for employment in other countries if the overseas employment generates remittances for the source country.

It is estimated that India (US\$11.5 billion), Mexico (US\$6.5 billion), and Egypt (US\$3.5 billion) receive the highest remittances.<sup>43</sup> However, it is difficult to estimate the actual scale of remittances because of the multitude of official and unofficial ways in which they are returned. There is uncertainty about the value of remittances for economic development because it is not clear how they are used in a community. There are benefits to a community if remittances are used to build homes or send children to school or pay for medical services. But remittances may do little to build health and education systems in the country. Remittances, like all stores of personal money, can also be badly wasted, on things like tobacco, alcohol, illicit drugs, and gambling.<sup>44</sup>

## **CONCLUSION**

This chapter highlighted the sometimes complementary, sometimes competing rights, interests, and obligations of individuals, health workers, and states. To resolve the health worker shortage, developed countries must provide leadership and partner with developing countries to make substantial progress. Understanding rights, interests, and duties paves the way for innovative solutions, which are the subject of the next chapter. The recommendations for innovation that follow focus on the duties of the various actors, the protection of individual rights, and the interests of all parties to determine priorities in circumstances where rights and interests are in tension.

**CHAPTER 5: US POLICY ON THE GLOBAL  
HUMAN RESOURCE SHORTAGE—RECOMMENDATIONS  
FOR ACTION**

This chapter makes seven recommendations for the United States to respond to the global human resource shortage in health care. The chapter brings together data and conclusions regarding the scope of the shortage, the contributing causes, the consequences for people and communities, and the rights, interests, and obligations of key stakeholders.

International organizations have made many calls to action to solve the global human resource shortage. The WHO's *World Health Report 2006—Working Together for Health* and the Joint Learning Initiative's *Human Resources for Health: Overcoming the Crisis* offer concrete recommendations. The WHO Global Code of Practice on the Recruitment of Health Personnel, adopted by the World Health Assembly in May 2010, is a notable achievement. This report builds on these, and many other, innovative ideas.

This report, however, is unique because it focuses primarily on the role of the United States. We draw attention to the United States for several reasons. First, to make meaningful progress, it is imperative for states to devise and implement national and local plans of action. Although the shortage is a global problem, individual countries must consider what they can do to respond. The global shortage is not some other country's problem—it is every country's problem.

Second, the United States significantly contributes to the global shortage and has the ability to make a meaningful difference. The United States has a national shortage of health care workers—at least in certain areas such as prevention and primary care, especially in poor and rural communities. Although its human resources are well above the baseline levels set by the WHO and the Joint Learning Initiative, the American public has high expectations for access to quality services. At present, the United States cannot meet local demand for health services. This has an impact on Americans, but also affects people in low- and middle-income countries. The United States is a migration magnet, and as long as it leaves its own health worker shortage unchecked, it will continue to draw large numbers of foreign-trained workers.

The recent US health care reforms will exacerbate the domestic shortage. The extension of insurance coverage to 30 million more Americans by 2014 will likely cause a surge in demand for health care services.<sup>1</sup> And this does not even take into account the large number of individuals who are underinsured and will have expanded coverage under the Affordable Care Act (ACA). Unless the United States has an adequate domestic health workforce when the ACA is fully implemented, it may need to rely to an even greater extent on foreign-educated health workers.

Third, the ACA offers an ideal opportunity to reform domestic health workforce policy. Capacity to meet the expected surge in demand for services is a key ACA implementation issue. Unless the United States develops a comprehensive plan to build its health workforce, Americans may regard the reforms as an expensive failure. The United States need not necessarily train ever-increasing numbers of health workers. Rather, the vital goals of health care reform may be better served by reconsidering the mix of health workers and their placement. What is the ideal number of physicians, nurses, and allied health workers? What are the most compelling drivers for workers to enter fields with the

greatest needs, such as primary care? What are the best incentives to place workers in underserved communities, such as poor urban areas and rural settings?

Fourth, the reforms in President Obama's Global Health Initiative (GHI) launched in May 2009 present an opportunity to reconsider how domestic and foreign policy can be harmonized. The United States expends considerable resources on health assistance to low- and middle-income countries, but, to date, this spending has been inadequately directed to building health workforce capacity. There are signs this might be changing. The GHI commits \$63 billion over six years for HIV/AIDS, malaria, tuberculosis, and other global health priorities.<sup>2</sup> The GHI sets ambitious goals, including health system strengthening, using evidence-based approaches, and collaborating at a national and international level. It will identify 20 nations "GHI Plus" countries to receive additional assistance.

On August 31, 2009, President Obama signed a Presidential Study Directive (PSD) on global development policy, authorizing a historic US government-wide review of foreign assistance. The PSD is important because it signals the president's intent to reach across government agencies to devise a more coordinated and strategic approach to development policy. The review goes beyond the State Department and the US Agency for International Development (USAID) to reach the Defense Department, the Treasury Department (which handles US assistance to multilateral assistance organizations), the Overseas Private Investment Corps, and the Agriculture Department.

This PSD is being implemented in conjunction with the State Department's development strategy—the Quadrennial Diplomacy and Development Review.<sup>3</sup> These high-level foreign policy initiatives could be used as a vehicle for moving international development assistance for health toward a greater emphasis on health systems and human resources. In fact, the scholarly, policy, and advocacy communities are urging the administration to radically renew the United States' global health and development assistance policy.<sup>4</sup> Commentators have urged the administration, among other things, to shift its global health policy from a single disease focus to a "basic needs" and health systems approach, with health workers being a central part of any functional health system.<sup>5</sup> Unfortunately, funding for the GHI and related foreign assistance programs is at risk in the current fiscal environment.

The combination of these high-level domestic and foreign policy reforms suggest that *now* is the right time for the United States to commit to large-scale programs to rapidly address the global health workforce shortage.

However, in making these recommendations, we want to be clear that the United States does not bear sole responsibility nor must it act alone to solve the problem. Other countries contribute to the global human resource shortage. The shared responsibility is most evident in the context of migration, where, as demonstrated in chapter 3, many rich countries rely more heavily, in relative terms, on foreign doctors and nurses than the United States.<sup>6</sup> A global partnership among states and stakeholders to systematically respond to the crisis is vital. The United States has the status

and influence to act as a leader of that partnership and to demonstrate how domestic and international interventions can reduce the health workforce shortage.

The following seven recommendations have the greatest evidence base, although we recognize that a great deal of research is still required to establish which policies are most cost-effective. For each recommendation, we offer reasons and strategies for implementation as well as the key actors that should be engaged.

**RECOMMENDATION 1:**

**The administration, in collaboration with states and other stakeholders, should develop a strategic plan for addressing the health worker shortage in the United States.**

A considered national plan for responding to the domestic human services shortage does not currently exist and is urgently needed. In developing the plan for its own workforce, the United States should consider how it would affect low- and middle-income countries. The plan should outline, with some specificity, the strategies that will be pursued to meet domestic human resource needs, including the numbers of health workers; the ideal mix of physicians, nurses, and allied health professions; and incentives for workers to enter fields with high need such as primary care and to work in underserved areas such as rural settings and poor urban communities.

The US government's planning process should involve close collaboration with all major stakeholders such as states and localities, hospitals, community colleges, universities, and professional organizations.

**RECOMMENDATION 2:**

**The administration, using an “all-of-government” approach, should develop a strategic plan to address the global health worker shortage.**

The administration, in partnership with major stakeholders, should develop a strategic plan for addressing the global health worker shortage that links to the domestic health system and to migration policy, as well as to foreign development assistance. The plan should adopt an “all-of-government” approach involving stakeholders from all levels of government and the private sector.

As part of this plan, the administration should address the workforce shortages in low- and middle-income countries. The plan should be devised in collaboration with all relevant federal agencies, including those from the departments of health and human services, state, education, labor, trade, and defense. This is consistent with the approach promised by the GHI.

A “human resources for health impact assessment” should be conducted for relevant domestic and foreign policies to examine the effects of the policies on health system capacities in low- and middle-income countries. The assessment would place the government in a position to plan for growth and change in the domestic health workforce and to support health workforce development in other countries.

The plan should also closely involve other actors with an interest or obligation in relation to the global health workforce—notably states and localities, universities and community colleges, and professional and health care organizations.

The plan should be fully funded and monitored at regular intervals. The administration should signal its commitment by creating suitable leadership and institutional structures, such as White House oversight and coordination.

**RECOMMENDATION 3:**

**The administration, with congressional support, should provide global leadership in addressing the global health worker shortage.**

The United States should continue leading the effort to engage the international community in responding to the global health worker shortage.

There have been significant achievements in global health over the past 25 years, especially in relation to HIV/AIDS, malaria prevention and treatment, and polio eradication.<sup>7</sup> These achievements have been made through the collective efforts of nations, international governmental organizations, nongovernmental organizations, and the private sector. The Global Fund for AIDS, Tuberculosis and Malaria, for example, has a collaborative and innovative governance system to promote coordination and aid effectiveness. The cross-border pooling of ideas, resources, and resolve has enhanced the ability of individual governments to improve global health.

The United States has always made significant financial contributions to these international initiatives. Its role in multilateral organizations, however, has been less prominent with successive administrations having been reluctant to become a party to multilateral agreements outside of World Trade Organization treaties. By acting bilaterally the United States has diminished its global leadership status and, more importantly, has missed the opportunities afforded by international collaborations to advance global health.

**Involvement in Multilateral Organizations**

“Shared responsibility” is a key GHI principle. Yet, the GHI does not indicate how the United States will improve collaboration with international partners such as the WHO, the Global Fund, the GAVI Alliance, and the International Health Partnership. The GHI’s distribution of bilateral funding for the FY 2009 to 2012 is projected to be 84%, while the GHI’s funding of multilateral initiatives for the same period is only 16%.<sup>8</sup> The United States’ contribution to the Global Fund has flatlined at a level far below its fair share of \$2 billion, which is especially troubling as only \$3 billion of the total \$10 billion global commitment has been raised as a result of the global economic crisis.<sup>9</sup> In the current crowded global health landscape, the GHI should work more collaboratively with other donors to achieve efficiencies and sustainability rather than create parallel and redundant programs.

Engagement with the Global Health Workforce Alliance, for example, would be strategic and effective in addressing the migration of health workers.

### **Adoption and Implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel**

The administration should fully comply with the WHO Global Code of Practice on the International Recruitment of Health Personnel (WHO Code).<sup>10</sup> In order to be compliant with the WHO Code, the United States should “take into account the right to the highest attainable standard of health of the populations of source countries, individual rights of health personnel to leave any country in accordance with applicable laws, in order to mitigate the negative effects and maximize the positive effects of migration on the health systems of the source countries” (ICESCR, Article 3.4). This commitment should be reflected into the national strategic plan envisaged in recommendation 1.

The United States should also implement the machinery envisaged by the Code, including data gathering on health worker migration and its impact on health systems (Article 6.2); research on health worker migration (Article 6.3); information exchange with other member states (Article 7); and reporting to the WHO about the steps it has taken (Article 9.1). There is a dearth of information on these topics and the evidence suggests that increased data collection and analysis would be of value. Following the principles of the WHO Code and implementing its terms in national policy would significantly contribute to reducing the global human resource shortage.

### **Ratification and Implementation of the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families**

The president should sign, and Congress should ratify, the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (Migrant Workers Convention). The Migrant Workers Convention, discussed in chapter 4, is designed to protect migrant workers. Congress, moreover, should implement the Convention through domestic law as a means to safeguard the rights and interests of migrant workers.<sup>11</sup>

### **Use of Bilateral and Multilateral Agreements**

The administration, with Congress, should, as contemplated in Article 5.2 of the WHO Code, enter into bilateral and multilateral agreements with states in relation to the health workforce shortage.

The United States should consider entering agreements with an extensive set of commitments, including pursuing health workforce self-sufficiency for the United States and partner states; providing financial and technical support for health workforce capacity building (see specific details

in recommendation 4); managing and monitoring health worker migration among the states; creating knowledge and skills development programs for immigrant health workers; collecting and sharing data on migration; implementing protections for immigrant health workers, including portability of payments made to pension plans during service in the United States; facilitating transfers of remittances from migrant health workers in the United States back to their home countries; and enabling the diaspora in the United States to assist with health system development in migrant workers' home countries through returns to the workers' home countries for education and training of local workers.

It may be that an initial agreement between the United States and partner countries would establish broad commitments, with protocols on specific topics thereafter. The proposed Framework Convention on Human Services (FCHS) currently being developed by the World Bank, in collaboration with the O'Neill Institute at Georgetown University, for the Caribbean Community (CARICOM) provides a useful model. Although the process will require buy-in from governments in the Caribbean, the CARICOM FCHS, if successful, will be an international agreement designed to ensure cooperation and capacity building for human resources throughout the region. It would coincide with the new single-market economy, providing a common market for trade in goods, services, capital, skills, and free movement of labor.

There needs to be ongoing monitoring of the impact of any such agreements on the health workforce in the United States and the co-signatory nations. This would be a new frontier for the United States, and the utility of this strategy should be carefully evaluated to inform future efforts. There is scope for further research into the effectiveness of existing agreements such as that between the UK and South Africa.

#### **RECOMMENDATION 4:**

**The administration and Congress should reform US global health assistance programs to increase health workforce capacity in partner countries.**

Building a sustainable health workforce in each of the United States' partner countries should be a priority for its global health assistance programs, particularly under the Global Health Initiative.

Although migration of health workers is one of the causes of the crisis, it is the inability of poor countries to train and employ sufficient numbers of health workers that is at the root of the problem. Each of the 57 countries with critical health workforce shortages needs to train and employ, on average, 75,000 additional health workers. Extraordinary measures are required to meet such a target. Countries also need assistance in retaining staff. Stemming health worker migration is important and needs to be achieved through improving living and working conditions in the workers' home countries. Putting in place bans and obstacles to migration will not work. The human services crisis will dramatically improve if the international community helps low- and middle-income countries to develop strong health system capacity.

The GHI represents an opportunity to steer more US health assistance towards the building of health systems and health workforces in countries with dire health needs. There are excellent projects under way, such as the Medical Education Partnership Initiative and the Nursing Education Partnership Initiative.<sup>12</sup> But we would like to see the United States transform its approach to global health assistance. To accomplish this, the government must reorient its international health assistance programs away from a single disease orientation to a focus on developing health systems and addressing the basic survival needs of the world's poorest people. Survival needs are those matters essential to maintaining and restoring human capability and functioning, and include sustainable health systems (including health workers), vaccines, essential medicines, sanitation and sewerage, pest control, clean air and water, and tobacco reduction.<sup>13</sup> Although the United States has started along this path, it needs to go further and more quickly.

The GHI is committed to improving coordination of US global health assistance and adopting an “all-of-government” approach. By using all the departments of government, the administration is well placed to build on its existing commitment to train 140,000 new health workers in countries where PEPFAR programs operate.<sup>14</sup>

We recommend that GHI programs include the following components for the purposes of enhancing health workforce capacity building.<sup>15</sup>

### **GHI-Plus “Learning Labs”**

We specifically see the GHI-Plus program as an opportunity for the federal government to intensify its efforts at health workforce building in the 20 selected countries.<sup>16</sup> These countries could be viewed as “learning labs” for health workforce development. By that we mean that the United States would work with the host country and relevant stakeholders to implement a comprehensive strategy to overcome the country's health worker shortage. The strategy should seek to address all aspects and causes of the shortage. Most importantly, the United States should evaluate the programs to determine whether they are successful and why. This approach will benefit the host country, but may also shed light on approaches that can be translated to other country contexts and inform other aspects of the GHI program.

### **Health Workforce Planning in Partner Countries**

The United States should offer host countries assistance with health workforce planning in accordance with a primary health care model. This requires an analysis of the health workforce needs. But this analysis must entail more than counting the number of health workers and determining how to meet the Joint Learning Initiative benchmark of 2.5 doctors, nurses, and midwives per 1,000 population (or the WHO's benchmark of 2.28). We recommend that the planning analysis start with these questions: What are the country's health needs? What does the country need to be healthy? What health problems need to be addressed?

Answers to these questions should lead to an understanding of the *services* required to meet the country's health needs. The analysis should have a focus on illness and injury prevention, public health practice, and primary health care. On the basis of this information, the host country can make decisions about the *numbers* of the different types of health workers required to meet domestic needs. The achievement of these targets for health workforce creation will be one indicator of the success of the United States' efforts.

### **Task Shifting in Partner Countries**

In the health workforce planning process, the determination of the desired mix of health workers must proceed on the basis that task shifting should be pursued wherever the evidence shows that it is safe and cost-effective. We emphasize that quality of care and patient safety must be guiding principles in developing the task shifting model. There seem to be significant economic benefits to be gained from using task shifting, but it also has the potential to lift the morale and satisfaction of health workers whose skills are able to be better matched to the services required. The viability of this strategy will depend, at least in part, on existing health professionals and their representative associations being flexible about changes in their scope of practice.

The health workforce analysis will most likely show that countries with critical shortages need to increase their supply of physicians and nurses; nevertheless, we recommend that special attention be given to increasing the roles of three cadres of workers who are vital to any effective, efficient, and equitable health system: community health workers, public health professionals, and health practice/system managers.

### **Community Health Workers in Partner Countries**

We strongly support the increased use of community health workers, who should be trained and engaged in functions appropriate to the partner country. The health workforce planning process should identify a clear place for community health workers in the health system. Community health workers can carry some of the duties currently performed by other cadres of health workers. However, they also offer a unique service: they are especially well placed to assist with health promotion and disease prevention.

### **Health Care Management Capacity in Partner Countries**

We are also convinced that expertise in health care/health system organization and management is missing in many countries. Many hospitals and health clinics may be able to assist more patients if they had improved systems and practices. For example, better patient intake procedures could minimize the time physicians spend with patients, enabling them to see more patients and provide

more care. Similarly, the presence of committed and capable managers would benefit the staff through improved supervision and mentoring. Better organization and management also offer benefits to patients in terms of safety and quality of services. If health services were better managed, the system and country as a whole would improve, and health workers would feel more supported in their work and less inclined to leave in search of better working conditions.

### **Education of Health Workers in Partner Countries**

We recommend that the administration offer financial and technical support to educate the types of health workers that the planning process shows are necessary for the country's health system. The United States' current work on the WHO/PEPFAR project on scaling up nursing and medical education is valuable and should be continued.<sup>17</sup> Support should also be provided for appropriate ongoing training of existing health workers. This may involve establishing or improving national or regional health worker training facilities. The work of PEPFAR and the WHO to fortify nursing and medical education offers a path to build health workforce capacity.

Among many available strategies, the United States should increase training exchange and twinning opportunities for health professionals or students from resource-poor countries. The United States has vast expertise and many training centers that could accept health workers or students on exchange. There are many health workers in the United States who may also be interested in teaching opportunities in poorer countries for a period of time. These exchanges and twinning programs should have the specific purpose of building health workforce knowledge and capacity. The exchange participants should not be seen as potential recruits or cheap labor for the US health system. The students and professionals who come on exchange should be expected to return to their country of origin, and visas to work in the United States should not be extended to them for a period of several years.

### **Employment of Health Workers in Partner Countries**

A more controversial part of a US global health assistance plan may include funding positions for health workers and increasing health worker remuneration. Before this strategy is chosen, serious consideration needs to be given to the financial sustainability of the new positions or wage increases in the context of the country's economic circumstances. However, many of the countries with critical health worker situations simply are unable to afford to pay all of the health workers they require to meet even a basic level of health for their people. In these circumstances, it is difficult to avoid the conclusion that financial assistance will need to be given to employ more health workers in the country—at least in the short term.

### **Retention of Health Workers in Partner Countries**

The United States should also provide support for programs that encourage staff retention. Health

workers are unlikely to remain working in unsafe, distressing, and otherwise adverse environments. Testing of health worker retention strategies should be a central component of the learning labs we recommend for the 20 GHI-Plus countries. Because health worker retention is so critical to the success of scaling up efforts in health worker education, much more attention needs to be given to this aspect of the health workforce shortage.

Retention strategies need to be carefully crafted to the country conditions, as well as the individual workplace, in order to be effective. However, there are retention programs and practices being used at the macro and micro level in many countries that could be translated to other settings. The recently published WHO report on retention of health workers in rural settings will assist countries in understanding the approaches that are most effective.<sup>18</sup> Additionally, communities of practice could be established at the country, regional, or global level for the sharing of information and evidence about what works. Sharing data and ideas concerning best practices for retaining workers will help inform policy.

Supporting health care workers can be highly effective; such support includes ensuring access to physical and mental health services, fostering safe working conditions, making the workplace suitable for women and their families, and providing fair remuneration to help workers achieve financial security. Many workers will not locate in places that do not offer adequate services for their families. Building communities in which health workers and their families can live safe and decent lives is also vital.

## **Accountability**

The GHI should include accountability mechanisms for health workforce development. There should be targets set for health workforce creation and retention, and these should be specifically monitored. Too often, health assistance programs have failed because of a lack of trained health workers to deliver the interventions that the United States has deemed necessary for the country setting. When the United States decides to deliver health interventions in a particular country, it should also take on the responsibility of building the country's domestic health workforce to support them.

### **RECOMMENDATION 5:**

**The administration, together with Congress, should increase financial assistance for global health workforce capacity development.**

The US government should increase its commitment to global health assistance programs that build health workforce capacity.

We recognize that increasing international financial aid is a particular challenge in the current global economic environment. Nevertheless, the United States has made major new commitments to global health in the period 2009–2014, with a promise of \$63 billion. This is a significant step forward for the United States, which, for many years, fell well short of meeting its stated commitments.

In the Monterrey Consensus, developed countries were urged “to make concrete efforts” to meet the target of giving 0.7% of Gross National Product (GNP) to developing countries and 0.15%–0.2% of GNP to the least developed countries.<sup>19</sup> The UN Millennium Project 2002 sets the target of 0.54% of Gross National Income (GNI) to meet the MDGs.<sup>20</sup> Despite these commitments, the United States contributed only 0.16% of GNI in 2007, which is below the rich country average of 0.45%.<sup>21</sup> This contribution placed the United States last among G8 countries excluding Russia. It also compares poorly with the UK and France, which devote 0.5% of GNI, and Norway, which dedicates 0.9% of GNI.<sup>22</sup>

The United States should devote a significant proportion of its new financial commitments to health workforce development, linked to country needs. Without the creation of greater health workforce capacity, the effectiveness of spending on infrastructure and equipment will be significantly undermined.

Unfortunately, at the halfway mark in the six-year GHI funding program, the budgets for 2009, 2010, and 2011 total only \$26.13 billion, which is 43% of the promised GHI funding. The full amount of \$63 billion is needed for addressing the problems of global health. And the current focus in Washington on deficit reduction does not bode well for increased funding.

Although the additional US spending on global health, if implemented, would be impressive, the president and Congress have not adopted the Institute of Medicine’s recommendation that the government increase its annual commitment to global health between 2008 and 2012 from \$7.5 billion to \$13 billion. This figure equates to 0.16% of *official development assistance* (ODA) (the average rich country expenditure on ODA for health), where the United States’ required overall ODA would be 0.54% (the amount needed to meet the MDGs) of the US GNI of \$15 trillion (as it was forecast in 2008).<sup>23</sup> The federal government should give very serious consideration to increasing foreign health assistance in the coming years. Health workforce development will require a massive financial investment, and the budget may need to be increased to deal with this aspect of global health.

We are also concerned that the ability of poor countries to build their health workforces may be more precarious than ever, making US financial assistance even more necessary. There are major concerns about food security and climate change that require an urgent and sustained response. Issued in the context of the world financial crisis, the Doha Declaration in December 2008 called on “all donors to maintain and deliver on their ODA commitments and . . . on the international community, including the World Bank and the IMF, to help developing countries and countries with economies in transition to strengthen their economies, maintain growth and protect the most vulnerable groups against the severe impacts of the current crisis.”<sup>24</sup>

The contraction in the global financial system is undermining the economic stability of many poor countries and their ability to finance their own health system needs, with private financial flows, direct foreign investment, remittances to, and exports from developing countries all falling.<sup>25</sup> Many of these countries have also been affected by rising food prices and fluctuating commodity prices. Individuals in these countries will be looking more frequently to their governments for support with their health care

needs, and these governments will need the financial support of partners, like the United States, in order to have health systems that can respond to these needs.

**RECOMMENDATION 6:**

**The US government, in collaboration with its partners, should increase the number of health workers being trained in US institutions for service in the US health system.**

The US government, in collaboration with its partners, should increase its production of domestic health workers to meet most of the US national demand for health workers. The United States can have a major impact on the global shortage by actively pursuing a policy of national self-sufficiency, increasing its store of domestic health workers, and decreasing its reliance on immigrant health workers. The creation of more domestic health workers also has clear benefits for US citizens and residents who should therefore have more ready access to health care providers.

The federal government has taken positive first steps in the effort to rebuild the health workforce. The Affordable Care Act (ACA) includes substantial financial commitments to health workforce development in the United States. However, we expect that additional financial contribution will be required to effectively address the significant deficits in the US health workforce.

### **Health Workforce Planning in the United States**

The United States, like many countries with critical shortages, requires more accurate and effective health workforce planning. In this regard, the ACA's establishment of the National Health Care Workforce Commission (Commission) and the National Center for Health Workforce Analysis (Center) is a long overdue and important initiative. The 15-person Commission will on an annual basis review health workforce supply and demand in the United States and make recommendations to Congress and the administration on health workforce goals, policies, and priorities. The Commission will be assisted by the Center, which has a role in gathering data about the health workforce. Mechanisms such as these are crucial to ameliorating the health workforce shortage.

The Commission needs to identify the health needs of the US population and the numbers and types of health workers who must be available to tend to those needs. We recommend that the Commission use a health needs model for determining the nation's health workforce requirements. There is considerable dispute about the nature and extent of the US health worker shortage. Some say that claims overstate the extent of doctor and nurse shortages. The health needs model would render a more accurate picture of demand and supply than other available tools. The Commission also needs to work closely with state workforce planning bodies and state legislatures in developing plans to address state and regional workforce shortages and in educating sufficient health care workers to meet their needs.

## **Task Shifting in the United States**

We recommend that in determining its domestic demand for health workers, the United States fully explore the potential of task shifting between cadres of health workers. This is not a solution limited to poor country health workforce problems, but is an approach every country should be investigating. A consequence of applying a task shifting approach may be that the United States has a smaller deficit of doctors and nurses than is sometimes claimed. The government may be open to this approach, with the ACA supporting the development of programs for “alternative dental health care providers” and the establishment of health centers that can be managed by an advanced practice nurse, rather than a physician, for example. However, this is the only indication of support for task shifting in the entire legislation. There is much more that task shifting can offer (see chapter 3), and its potential seems to have been recently affirmed by the Institute of Medicine, which recommended that nurses be able to “practice to the full extent of their education and training.”<sup>26</sup> We encourage the Commission to include options for task shifting in its recommendations to the administration and Congress.

## **Community Health Workers in the United States**

We also stress the importance of greater engagement of community health workers. There is a strong evidence base for the adoption of this strategy. As discussed in chapter 3, community health workers have the skills to make major contributions to preventing health problems and improving access to health care in a cost-effective manner, with specific benefits for the society’s most vulnerable groups. There has been documented success with community health workers in some states.<sup>27</sup>

The ACA authorizes funding to a range of organizations to use community health workers to educate and provide outreach to medically underserved communities about health insurance enrollment and child and maternal health. We also recommend that assistance be provided for developing accredited training programs, licensing, and professional development to give greater legitimacy for this vital group of health professionals.

## **Nurses**

We support the training of more nurses in the health workforce. Additionally, states should consider widening the scope of practice of nurses. By some estimates, the US health care system will be short 1 million nurses by 2020. The ACA establishes new initiatives to expand existing programs that call for nursing expertise. For example, the legislation offers grants for nurse-managed health centers. As these centers grow, they may need new nursing staff. Other sources of demand for nurses in the new law include the expansion of medical homes, transitional care programs, “independence at home” arrangements, and home visitation programs.<sup>28</sup>

The ACA includes modest funding to increase nurse education that is intended to support the training of 850 students annually;<sup>29</sup> however, 850 additional nurses per year (even for several years) will not come close to meeting the nurse shortage. The government's initiatives include funding for programs for nurses to upgrade to a baccalaureate education and loan forgiveness schemes for those with a nurse education who agree to serve as faculty members in nurse training programs. Both of these initiatives should increase capacity in colleges and universities offering baccalaureate nurse education. There is also additional funding of \$338 million for nursing programs under the Public Health Service Act. Thousands of willing applicants are turned away from nurse education programs each year because there are too few places in such programs. It is vital that qualified individuals seeking a nursing career are given the opportunity to pursue this vocation.

### **Primary Care Physicians**

There is considerable evidence to support a health workforce plan that prioritizes the training of more primary care physicians. The Institute of Medicine reports that 16,261 additional primary care physicians are required to meet the current demand for services in certain areas of the country.<sup>30</sup> The American Association of Medical Colleges (AAMC) claims that there could be a shortage of nearly 125,000 physicians in 2025. The American College of Physicians (ACP) relies on the research of the AAMC to argue that the shortages of primary care physicians for adults will escalate to more than 40,000 by 2025.<sup>31</sup> The ACP suggested in 2009 that health care reforms (producing universal coverage for 47 million uninsured Americans) could increase the demand for primary care physicians in excess of 25%.

Although this level of coverage was not achieved through the health care reforms, the coverage of 30 million more Americans in 2014 will have a major impact on demand for primary care physician services. States with a higher ratio of primary care physicians to population have decreased mortality from cancer, heart disease, and stroke,<sup>32</sup> and increased chances of early diagnosis of breast cancer. Such results indicate the considerable health system cost savings to be gained from the deployment of more primary care physicians.

The creation of more primary care physicians is a clear priority for the administration as seen in the new health care reform legislation.<sup>33</sup> There is support for increasing the training of medical students in the area of primary care. For example, medical students are offered more generous loan forgiveness schemes if they commit to residency training and service in primary care or pediatrics. There is also almost \$2 billion in funding to the National Health Service Corps to provide 12,000 more physicians, physician assistants, and nurses by 2016.

There is also funding (\$25 million in 2010, \$50 million in both 2011 and 2012, with further appropriations in following years) to support the creation of 500 more residency places for medical graduates wanting to specialize in primary care. There is also provision for the redistribution of allocated residency places to the primary care specialization, which the AAMC estimates could make

available each year approximately 1,500 training places that are not currently utilized.<sup>34</sup> This should assist with removing, to some extent, the graduate medical education bottleneck.

There is some payment reform, including provision for increasing the rates of remuneration for primary care doctors offering Medicaid services to the level of Medicare reimbursement. It is hoped that this will serve as an incentive to physicians to provide Medicare and Medicaid services.

It is not clear how many additional primary care physicians the current initiatives will produce, but the number is nowhere near the projected shortage of 40,000 or more primary care physicians who are purportedly needed by 2025. We expect that there will need to be many additional steps taken to grow the pool of physicians with a primary care specialization. These include further reviews of remuneration rates and possible changes to medical education to enable more students to study medicine and to more vigorously shift the focus to primary care.<sup>35</sup> However, we simultaneously encourage the careful consideration of whether tasks may be reassigned from doctors to other health professionals in the system.

We are also supportive of US medical graduates being expected to provide a period of service to a medically underserved community in the United States. This could be a rural community or a poor urban community that finds it difficult to attract doctors. This strategy would alleviate some of the short-term difficulties in providing medical services in these communities. In addition, it may be a transformative experience for medical graduates who decide to remain in these communities for many years, or a lifetime, of service.

## **Public Health**

The ACA gives greater attention to the creation of workforce capacity in the area of public health, although not as much as needed.<sup>36</sup> Community health workers, discussed above, can also make a contribution to public health. However, there are other areas of public health expertise that should be developed. To respond to the shortages in public health, the ACA provides loan forgiveness schemes for individuals who complete public health programs and provide three years of service to an eligible entity. There is also funding for degree or training programs for midcareer public health (and allied health) professionals who are engaged in government service at any level, and for CDC training fellowships for public health professionals. These policy initiatives will improve public health workforce capacity, and we recommend a sustained government commitment going forward.

## **Retention and Distribution of Health Workers**

There are two major challenges that must be addressed as part of a program of increased health workforce self-sufficiency. First, it is necessary to find ways to retain newly trained staff in the health professions and stem the rate of attrition. The United States cannot afford to expend money on training health workers to have them leave the profession after short periods of

time. Second, much greater emphasis needs to be placed on developing programs to convince workers to serve in currently unpopular areas, such as in rural areas and disadvantaged communities.

The ACA also funds nurse retention and other programs that could contribute to retention. For example, there is funding for training programs for health professionals working in underserved areas, although not nearly enough (\$5 million over five years). However, there are larger amounts for “primary care extension programs” (\$120 million for 2011 and 2012, with further sums as necessary for 2013 and 2014) that are directed at physicians for increasing provider knowledge, but which may also assist with the causes of attrition, such as lack of career development.

Financial support for these initiatives is vital, but we also reiterate our earlier suggestion that communities of practice could be supported to share information and evidence about successful retention strategies.

To carry out all the activities for health workforce creation discussed in this recommendation, the federal government and the states must work intensively with the many other stakeholders, such as universities, community colleges, professional associations, and health care organizations. Many of these organizations will be primarily responsible for designing and delivering the programs that will ultimately lead to increased health workforce capacity.

**RECOMMENDATION 7:**

**Congress should empower the Department of Health and Human Services or another appropriate agency to regulate the recruiters of foreign-trained health workers.**

The federal government should regulate recruiters of foreign-trained health workers to protect the rights and interests of health workers, their source countries, and their communities.

At present, neither the federal government nor the states directly regulate recruiters of immigrant health workers. Some recruiters have signed the Voluntary Code of Ethical Conduct for the Recruitment of Foreign-Educated Nurses (FEN Code). The FEN Code could help to reduce poor behavior by recruiters, but this remains to be seen. There is currently no code that governs the recruitment of other cadres of health workers, such as physicians and pharmacists.

Congress should empower the Department of Health and Human Services or another appropriate agency, building on the FEN Code and Article 4 of the WHO Code, to set standards for health personnel recruitment agencies’ dealings with domestic *and* immigrant health workers. The FEN Code includes recruitment advertising, the information to be disclosed to the recruit, the procedures for a fair contract, the fee arrangements, dispute resolution processes, and professional and personal support to be provided to the recruit.

Congress should also prohibit misleading and deceptive conduct, intimidation, harassment, coercion, and other unethical conduct by recruiters.<sup>37</sup> A consumer protection model is appropriate because health worker recruiters are often only paid, or receive complete payment, if they succeed in

bringing the health worker to the United States—delivering them, ready and willing to work, to the health care organization.

The legislation should be drafted to explicitly include dealings between recruiters and health personnel that occur entirely outside the United States, where the recruitment company is incorporated, or is acting as an agent of another recruitment company in the United States. This will ensure that recruitment conduct that occurs offshore does not fall outside the reach of the legislation. The legislation should include appropriate machinery for the enforcement of requisite standards for health personnel recruitment agencies.

## **CONCLUSION**

The global human resources shortage is debilitating the health systems of many countries, particularly low- and middle-income countries. In rich and poor countries alike, the good health of individuals, particularly the most economically disadvantaged, is being compromised because of a lack of skilled workers. People's capacity to live a good life of their own choosing is made much more difficult when they cannot get the health services they need. Whole societies suffer when their people are unhealthy—with social, political, and economic ramifications everywhere. The global human resource shortage is one of the most pressing and serious issues facing the world today.

The causes of the global health worker shortage are complex and multifaceted, and designing solutions requires understanding the exact contours of the problem at the national and local level. Across most countries, the contributing causes include the failure to plan, an implicit rejection of the policy of national self-sufficiency, insufficient implementation of task shifting, underfunding of education and training, working conditions that lower morale and drive out workers, and migration and recruitment of health workers from poor to rich countries. Although some of these causes are homegrown and rooted in poor domestic policy, conditions in one country can fuel the shortage in another country. It is certainly more difficult for a country that is harmed to find effective solutions unless other countries change their detrimental policies and practices.

The United States can offer global leadership in solving the human resources crisis. It should work on two fronts. First, the government should redesign its global health assistance programs for low- and middle-income countries to build their domestic health workforce and create conditions that encourage health workers to remain. Second, the government should reform its own health workforce system. The United States could make a real difference in the world by increasing and realigning its domestic health workforce capacity and reducing its high demand for immigrant health workers. The global-local nature of this strategy means the benefits will flow to people in other countries that frequently lose their health workers through migration to the United States. But this initiative would do more than that. It would enable the United States to better serve the needs of all Americans, particularly those who have been traditionally underserved.

The seven recommendations outlined in this report would reform policies and programs to improve human resources in the health sector in the United States and beyond. These recommendations are designed to protect the rights of individuals, balance competing interests, and respect the duties that parties owe to others. Certainly, there are times when these rights, interests, and duties are in tension. When there is a conflict, priority should generally be given to the rights and interests of communities and individuals, rather than those of states and businesses.

The United States has a clear national interest in reforming its human resources policies domestically and globally. Our recommendations show how the federal government, in collaboration with states, partners, and other stakeholders, can best undertake this task—for the benefit of its own people and others around the world, particularly for the most disadvantaged.

## NOTES

### CHAPTER 1

- 1 World Health Organization, *World Health Report 2006*, xvi.
- 2 *Ibid.*, 20.
- 3 World Health Organization, *Health Systems Financing*.
- 4 Gostin, “Meeting Basic Survival Needs.”

### CHAPTER 2

- 1 Buchan and Calman, *Global Shortage of Registered Nurses*, 20.
- 2 World Health Organization, “Establishing and Monitoring Benchmarks”; Joint Learning Initiative, *Human Resources for Health*, 33.
- 3 World Health Organization, *World Health Report 2006*, 3.
- 4 *Ibid.*, xvi.
- 5 Belluck, “In Turnabout, Children Take Caregiver Role”; Levine, “All in the Family.”
- 6 Joint Learning Initiative, *Human Resources for Health*, 28.
- 7 “Health service providers” means “professionals,” referring to doctors, nurses, dentists, midwives, and the like, in whatever setting they might provide those services, “associates” being, for example, laboratory technicians and “other community health service providers,” such as traditional healers: World Health Organization, *The World Health Report 2006*, 3.
- 8 “Health management and support workers” means “professionals,” like accountants in hospitals; “associates,” like administrators in hospitals; “support staff,” like clerical workers in hospitals and “craft and trade workers,” like painters in hospitals: World Health Organization, *World Health Report 2006*, 3.
- 9 World Health Organization, *World Health Report 2006*, 2–3.
- 10 World Health Organization, *World Health Report 2006*, xvi. In rich countries, health management and support workers slightly outnumber health service providers, but in low- and middle-income countries, health service providers make up 70% of the health workforce.
- 11 Joint Learning Initiative, *Human Resources for Health*, 28; World Health Organization, *WHO Estimates of Health Personnel*.
- 12 Joint Learning Initiative, *Human Resources for Health*, 27–28.
- 13 *Ibid.*, 27.
- 14 Buchan and Calman, *Global Shortage of Registered Nurses*, 44–45. See also Pittman et al., *US-Based International Nurse Recruitment*, 17.
- 15 Buchan and Calman also seem to believe that the nursing shortage should be defined to include trained nurses who are unwilling to work in the nursing profession: Buchan and Calman, *Global Shortage of Registered Nurses*, 20.
- 16 Joint Learning Initiative, *Human Resources for Health*, 29–32.

- 17 Joint Learning Initiative, *Human Resources for Health*, 32; World Health Organization, *World Health Report 2006*, 4.
- 18 Buchan and Calman, *Global Shortage of Registered Nurses*, 20.
- 19 Ibid.
- 20 Joint Learning Initiative, *Human Resources for Health*, 24. We note that the JLI does not disaggregate the data by type of health worker.
- 21 World Health Organization, *World Health Report 2006*, 11.
- 22 Joint Learning Initiative, *Human Resources for Health*, 23–24. The JLI admits the benchmark does not control for other inputs to health, including technology and drugs, and does not take into account the role of community health workers. In addition, with 2.5 health workers per 1,000 population (e.g., Venezuela and Kenya), some countries’ health outputs may be worse than the research suggests and some countries may perform better than the benchmark indicates (e.g., Mozambique, Gambia, Eritrea) because of the impact of other social and economic factors.
- 23 Joint Learning Initiative, *Human Resources for Health*, 33; Kuehn, “Global Shortage of Health Workers.”
- 24 World Health Organization, *World Health Report 2006*, 12.
- 25 Ibid.
- 26 World Health Organization, *WHO Estimates of Health Personnel*.
- 27 World Health Organization, *World Health Report 2006*, 12.
- 28 Ibid.
- 29 Ibid., 13.
- 30 Joint Learning Initiative, *Human Resources for Health*, 23–24.
- 31 World Health Organization, *World Health Statistics*, 56–63.
- 32 Mills et al., “Should Active Recruitment of Health Workers,” 685; World Health Organization, *Global Atlas of the Health Workforce*.
- 33 World Health Organization, *Global Atlas of the Health Workforce*.
- 34 World Health Organization, *Global Atlas of the Health Workforce*. But note that Médecins Sans Frontières calculates the nurse-to-population ratio in Mozambique as low as 20/100,000: Médecins Sans Frontières, *Help Wanted*, 13.
- 35 World Health Organization, *Global Atlas of the Health Workforce*. In regard to other health workers, Uganda has only 2.8 general surgeons and 0.37 physician anesthetists for each one million persons: Ozgediz et al., “Africa’s Neglected Surgical Workforce Crisis,” 627.
- 36 Schatz, “Zambia’s Health Worker Crisis,” 638.
- 37 World Health Organization, *Global Atlas of the Health Workforce*.
- 38 Ibid.
- 39 World Health Organization, *World Health Statistics*, 56–63.
- 40 Buchan and Calman, *Global Shortage of Registered Nurses*, 5; Omaswa, “Human Resources for Global Health.” The problem is widespread throughout the world. In Nicaragua, 50%

of the country's health personnel are in the capital Managua, whereas only 20% of the country's population is located there. In Mexico, even though an estimated 15% of doctors are unemployed or underemployed, rural posts remain unfilled. In Vietnam, the national average is one health worker per 1,000 population, but 37 of Vietnam's 61 provinces fall below the national average. At the other extreme, one province counts almost four health workers per 1,000 population: World Health Organization, *World Health Report 2006*, 8.

- 41 Pillay and Mahlati, "Health-Worker Salaries and Incomes," 632.
- 42 World Health Organization, *World Health Report 2006*, 8.
- 43 Médecins Sans Frontières, *Help Wanted*, 8.
- 44 Ibid.
- 45 Benatar, "An Examination of Ethical Aspects."
- 46 World Health Organization, *World Health Report 2006*, 8.
- 47 Buchan and Calman, *Global Shortage of Registered Nurses*, 24.
- 48 Mills et al., "Should Active Recruitment of Health Workers," 685.
- 49 World Health Organization, *World Health Report 2006*, 8.
- 50 See, generally, Médecins Sans Frontières, *Help Wanted*; Institute of Medicine, *PEPFAR Implementation*; Moore and Morrison, *Health Worker Shortages Challenge PEPFAR Options*.
- 51 Awases et al., *Migration of Health Professionals*, 58.
- 52 Pittman, *US-Based International Nurse Recruitment*, 18; Schatz, "Zambia's Health Worker Crisis," 638.
- 53 World Health Organization, *World Health Report 2006*, xix–xx.
- 54 Ibid., xix.
- 55 Ibid.
- 56 World Health Organization, *Human Resources in Health*, 2.
- 57 International Council of Nurses et al., *Global Nursing Shortage*, 5.
- 58 Anand and Bärnighausen, "Human Resources and Health Outcomes."
- 59 World Health Organization, *World Health Statistics*, 30.
- 60 Ibid.
- 61 Ibid.
- 62 Médecins Sans Frontières, *Help Wanted*, 4, 6, 8, and 10.
- 63 Awases et al., *Migration of Health Professionals*, 58.
- 64 Each year, 150 million people experience "financial catastrophe" as a result of having to pay for health care: World Health Organization, "Paying for Health Services."
- 65 World Health Organization, *World Health Report 2006*, xix.
- 66 World Health Organization, *World Health Report 2006*, xix; Crisp et al., "Training the Health Workforce."

### CHAPTER 3

- 1 World Health Organization, *World Health Report 2006*, 12.
- 2 Dwyer, “What’s Wrong with the Global Migration of Healthcare Professionals?” More generally, see Thomas Pogge’s views regarding the impact of the design of the global order on world poverty: Pogge, “World Poverty and Human Rights,” 5–7.
- 3 Stiglitz, *Globalization and Its Discontents*, 9; see also Friedman, *The Lexus and the Olive Tree*, 9.
- 4 Lopez et al., *Global Burden of Diseases*, 19.
- 5 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 29, 31.
- 6 Cooper, *US Physician Workforce*, 17.
- 7 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 31.
- 8 Institute of Medicine, *Guidance for Establishing Crisis Standards*.
- 9 The only infectious disease that is a significant cause of death in rich countries is lower respiratory infections (which account for 3.8% of deaths): World Health Organization, “Top Ten Causes of Death”; World Health Organization, *World Health Report 2006*, xix.
- 10 World Health Organization, *World Health Report 2006*, xix; Partnership to Fight Chronic Disease, *Almanac of Chronic Disease*, 34, 36, 59, reports that of all US adults, people with chronic diseases are the heaviest users of health care services, accounting for 99% of doctors’ visits, 92% of in-patient hospital visits, and 79% of home health care visits. Patients with chronic illness often see multiple health care providers, and three in four dollars spent on health care in the United States are spent on patients with one or more chronic disease. Indeed, the US health care workforce is not ready to meet the demands associated with chronic diseases. See Bodenheimer, et al., “Confronting the Growing Burden of Chronic Disease.”
- 11 Fertility is below “replacement levels” in nearly all high-income countries except for Brunei Darussalam, Israel, Kuwait, Qatar, and the United Arab Emirates. See Lopez et al., *Global Burden of Diseases*, 20. But, in the United States, for example, the population is expected to increase in size by 18% between 2000 and 2020: US Department of Health and Human Services, *Projected Supply, Demand and Shortages*, 9. See also World Health Organization, *World Health Report 2006*, xix; Buchan and Calman, *Global Shortage of Registered Nurses*, 30.
- 12 In 1990, males in high-income countries were expected to live to 72.9 years and, in 2001, to 75.5 years. For women in high-income countries, life expectancy was 79.7 in 1990 and 81.6 in 2001: Lopez et al., *Global Burden of Diseases*, 26–27.
- 13 Lopez et al., *Global Burden of Diseases*, 19–21. In the United States, the subgroup of the population over 65 years is expected to grow by 54% between 2000 and 2020, representing an additional 19 million people in this age bracket. This group spends more than three times as much on health care than do groups under 65 years; they have twice as many contacts with a physician; they account for 13% of the population but 38% of hospital discharges; and they have an annual per capita health care expenditure of \$5,400 compared with \$1,500 for those

- in groups under 65 years: US Department of Health and Human Services, *Projected Supply, Demand and Shortages*, 9–10.
- 14 European Symposium, *Towards a Society for All Ages*, 29. The report states that the following factors are typical of the morbidity of older people: higher incidence of illness; geriatric diseases, including cancer, cardiovascular diseases, physical disabilities, and mental disorders; greater chronicity of disease; and greater multimorbidity.
- 15 Life expectancy in low- and middle-income countries was 59.9 years for men and 64.2 years for women in 1990 and was 61.2 years for men and 64.9 years for women in 2001. In Sub-Saharan Africa, life expectancy decreased between 1991 and 2001. In 1991, male life expectancy was 49.6 years and female life expectancy was 55.1 years. In 2001, male life expectancy dropped to 46.0 years and female life expectancy fell to 48.8 years: Lopez et al., *Global Burden of Diseases*, 26–27. In some countries in Africa, the average life expectancy is well below these levels: in Malawi, the average life expectancy is 39.7 years and in Lesotho, it is 35.2 years: Médecins Sans Frontières, *Help Wanted*, 4, 10.
- 16 Lopez et al., *Global Burden of Diseases*, 20–21.
- 17 In middle-income countries, seven of the top ten causes of death are stroke and other cerebrovascular diseases (1); coronary heart disease (2); chronic obstructive pulmonary disease (3); trachea, bronchus, and lung cancers (5); hypertensive heart disease (7); stomach cancer (8); and diabetes mellitus (10). In low-income countries, three of the top six causes of death are coronary heart disease (2); stroke and other cerebrovascular diseases (5); and chronic obstructive pulmonary disease (6). See World Health Organization, “Top Ten Causes of Death.”
- 18 World Health Organization, *Global Burden of Disease*, 22.
- 19 *Ibid.*, 23.
- 20 World Health Organization and World Bank, *High-Level Forum on the Health Millennium Development Goals*, 4; Buchan and Calman, *Global Shortage of Registered Nurses*, 24.
- 21 See Moore and Morrison, *Health Worker Shortages Challenge PEPFAR Options*. The issue arises for countries in planning and operating health systems, as well as for donors of international assistance for health, like the United States. There is considerable concern about how to make PEPFAR sustainable in the long term. Starting people on anti-retroviral (ARV) treatment under a US-funded health program only to cease funding the program after a few years because it has become too expensive could have dire results: unless another source of ARVs could be made available to such people, they would most likely die very quickly and painfully. See Over, “Opportunities for Presidential Leadership on AIDS,” 299; see also Levine, “Healthy Foreign Policy,” 43.
- 22 See Abel, “Critique of Tort Law.” The EU seems to view this situation as a promising opportunity for labor market expansion and job creation: European Symposium, *Towards a Society for All Ages*, 33. If more people in the United States have insurance coverage, it is likely

- that there will be even more reliance on “external” long-term care: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 31.
- 23 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 31; Kuehn, “Global Shortage of Health Workers,” 1854.
- 24 Pittman et al., *US-Based International Nurse Recruitment*, 7.
- 25 US Department of Health and Human Services, *Projected Supply, Demand and Shortages*, 11.
- 26 Cooper, “United States Physician Workforce,” 16.
- 27 See Bazzoli et al., “Construction Activity in US Hospitals.”
- 28 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 31.
- 29 Joint Learning Initiative, *Human Resources for Health*, 66.
- 30 *Ibid.*, 72–73, 85.
- 31 Joint Learning Initiative, *Human Resources for Health*, 89. Malawi has the same under-five mortality rate as Nigeria, although it has only one-fifth of the health worker density as Nigeria. Kenya and Cote D’Ivoire spend about the same on health, but Kenya has doubled its health care worker density and has far lower under-five mortality.
- 32 World Health Organization, *World Health Report 2006*; Joint Learning Initiative, *Human Resources for Health*, 67.
- 33 World Health Organization, *World Health Report 2006*, 134; Riley et al., “Developing a Nursing Database System.”
- 34 World Health Organization, *World Health Report 2006*, 126. See also Chopra et al., “Effects of Policy Options for Human Resources for Health.” Note also the view of William Pick, who argues that more is needed besides additional research. Researchers need to be skilled at “policy entrepreneurship,” ensuring that their evidence gets taken up in policy deliberation: Pick, “Lack of Evidence Hampers.”
- 35 A significant issue is classification of the health workforce. Until 2006, the WHO reported only on doctors, nurses, midwives, pharmacists, and dentists. These categories leave out many other health professionals, health management personnel, and support workers who are vital to the operation of a functional health system: World Health Organization, *World Health Report 2006*, 2.
- 36 Joint Learning Initiative, *Human Resources for Health*, 68; World Health Organization, *World Health Report 2006*, 135.
- 37 World Health Organization, *World Health Report 2006*, 139; Riley et al., “Developing a Nursing Database System.”
- 38 World Health Organization, *World Health Report 2006*; Aiken and Cheung report that nurse workforce research has been “out of favor” for two decades: *Nurse Workforce Challenges in the United States*, 19.
- 39 World Health Organization and Global Health Workforce Alliance, *Country Case Study*.

- 40 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 34. Aiken and Cheung suggest that “relatively modest changes in existing national databases could vastly improve monitoring of nurse workforce trends.”
- 41 Aiken, “US Nurse Labor Market Dynamics Are Key.”
- 42 World Health Organization, *World Health Report 2006*, xxiv. There is a global effort under way to develop a common technical framework for health workforce planning and management. A group assembled by PAHO developed and continues to refine this framework: see [www.who.int/hrh/tools/en/](http://www.who.int/hrh/tools/en/).
- 43 Cooper, “US Physician Workforce,” 23, 27. Cooper is highly critical of US planning for the physician workforce, saying: “There is probably no example of a more poorly-conducted or more deliberately distorted planning activity in the history of the world.”
- 44 Joint Learning Initiative, *Human Resources for Health*, 67.
- 45 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 29, 33; Cooper, *US Physician Workforce*, 34.
- 46 Aiken and Cheung, *Nurse Workforce Challenges in the United States*.
- 47 World Health Organization, *World Health Report 2006*, xxi. There is some concern that too little attention is given to creating the next generation of public health personnel in many countries.
- 48 Joint Learning Initiative, *Human Resources for Health*, 67.
- 49 Ibid.
- 50 Ibid.
- 51 World Health Organization, *World Health Report 2006*, 126.
- 52 US nurse recruiters and other interests continually lobby Congress for increases in the number of registered nurse visas. In 2005, Congress agreed to carry over 50,000 unused employment-based visas for nurses that had been allowed in previous years but never used. In 2006, the American Hospital Association asked Congress to make available 90,000 unused employment-based visas to skilled professionals, such as nurses: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1304. In August 2008, the US House Judiciary Subcommittee approved an increase in the number of nurse visas. However, there has been no further progress on the matter. See Nysten and Gensheimer, “House Panel Votes to Increase Visas.” There is also the common situation of people entering the country on one type of visa, such as a student visa, and then successfully applying for a visa with work rights, which allows them to be employed as a health worker: Aiken, “US Nurse Labor Market Dynamics Are Key.”
- 53 Pittman et al., *US-Based International Nurse Recruitment*, 4. International recruitment began to increase in about 1998 when demand for nurses started to rise: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1303.
- 54 See Pittman et al., *US-Based International Nurse Recruitment*, 21–25.

55 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 30.

56 See the guidelines and recommendations in the World Health Organization's report *Task Shifting*.

57 Médecins Sans Frontières, *Help Wanted*, 13.

58 Ibid.

59 World Health Organization, *World Health Report 2006*, 23.

60 See, e.g., Holzemer, "Building a Qualified Global Nursing Workforce."

61 World Health Organization, *Task Shifting*.

62 World Health Organization, *World Health Report 2006*, xviii.

63 There may or may not be actual regulatory obstacles to task shifting, but often professionals will shy away from delegation of tasks to other workers if they are unsure about the legality of their action: Médecins Sans Frontières, *Help Wanted*, 13.

64 Moore and Morrison, *Health Worker Shortages Challenge PEPFAR Options*, 5.

65 Médecins Sans Frontières, *Help Wanted*, 3.

66 This is the definition submitted by the American Public Health Association CHW Special Primary Interest Group (APHA CHW SPIG) to the Bureau of Labor Statistics for inclusion as a Standard Occupational Classification in the Federal Register (SOC 21-1094): Anthony et al., *Community Health Workers in Massachusetts*, 15.

67 Anthony et al., *Community Health Workers in Massachusetts*, 81.

68 Norr et al., "Community Advocate's Point of View," 55–78. Community health workers themselves identify that they bring personal experience to the job, which places them in a unique position to work in and with communities.

69 Anthony et al., *Community Health Workers in Massachusetts*, 81. See also Lewin et al., *Lay Health Workers in Primary and Community Health Care*.

70 The MDPH review does emphasize that policy decisions to utilize CHWs would be assisted by further research into the effectiveness of CHW interventions and into the cost-benefit and return on investment to be gained from the use of CHWs: Anthony et al., *Community Health Workers in Massachusetts*, 81–82.

71 Hansen and Tobler, "Community Health Workers." It seems that only Minnesota, Indiana, Ohio, Texas, Washington, and Alaska have some education requirements for CHWs set down in law.

72 Anthony et al., *Community Health Workers in Massachusetts*, 4.

73 Bärnighausen et al., "Human Resources for Treating HIV/AIDS," 810.

74 Pittman et al., *US-Based International Nurse Recruitment*; Cooper, "US Physician Workforce," 38–39.

75 International Organization for Migration, *Migration and Human Resources for Health*, 15.

76 The United States is forecast to be short 405,800 nurses by 2010 and 1,016,900 nurses by 2020: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 29.

- 77 The average age of the registered nurse in the United States is increasing, reaching 46.8 years in 2004: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 12. Some 478,000 nurses are expected to retire in the United States between 2002 and 2012: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1301.
- 78 The American Association of Colleges of Nursing reported that more than 30,000 applicants seeking baccalaureate nursing education in the United States could not be accommodated in 2005. For the same year, the National League for Nursing reported that as many as 150,000 applicants were turned away from all nursing programs. This figure has not been adjusted for the occurrence of applications by the same person to more than one nursing program. See Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 19. More recent figures are provided by the American Association of Colleges of Nursing, which states that 67,000 applicants to professional nursing programs were turned away in 2010. See American Association of Colleges of Nursing, *Despite Economic Challenges Facing Schools of Nursing*.
- 79 Aiken, “US Nurse Labor Market Dynamics Are Key,” 1318. The United States needs to graduate 110,000 RNs each year from 2002 to 2012 to meet the demand. Whilst in 2006, the graduation rate was higher than this quota, inadequate graduations in the previous four years meant that the United States was 70,000 nurses behind the target for the five years ending 2006: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1302.
- 80 Buerhaus, “Current and Future State of the United States Nursing Workforce,” 2423.
- 81 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 17. Title VIII funding under the Public Health Service Act provides an annual federal appropriation (\$149.68 million in FY 2006) for nurse workforce development programs, including advanced practice nurse training, grant support to increase nurse workforce diversity and to improve retention, and loan repayment and scholarship funds: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 35. It should be noted that the American Recovery and Reinvestment Act promises an additional \$750 million for grants for worker training, of which \$250 million must be directed to preparing workers for careers in the health sector (page 59) and an additional \$500 million to “address health professions workforce shortages” (page 61), of which \$75 million is to be made available for expenditure on the National Health Service Corps up to 2011 (page 61). The Affordable Care Act also includes additional funding for nursing education, which is discussed in chapter 5.
- 82 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 20.
- 83 In 2004, 82% of applicants for loan repayment programs and 98% of applicants for scholarships were turned away due to insufficient funding: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 25.
- 84 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 18. Aiken and Cheung say that associate degree programs now account for 65% of new nursing graduates. This means that insufficient numbers of nurses are being produced with the educational qualifications to

- obtain graduate degrees necessary for faculty positions, advanced practice clinical roles, and administrative roles: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 15. Furthermore, the research clearly demonstrates that there is a lower mortality rate in hospitals where there are higher numbers of nurses prepared at the baccalaureate level: Cheung and Aiken, “Hospital Initiatives to Support.”
- 85 World Health Organization, *World Health Report 2006*, xxi.
- 86 See Advisory Committee on Student Financial Assistance, *Mortgaging Our Future*; Advisory Committee on Student Financial Assistance, *Shifts in College Enrollment*. The Advisory Committee on Student Financial Assistance projects that between 1.7 million and 3.2 million bachelor’s degrees will be lost in the current decade in the United States among college-qualified low- and middle-income families. This is because of the cost of college education and the lack of need-based financial aid for college degrees.
- 87 World Health Organization, *World Health Report 2006*, xxi.
- 88 See, e.g., Texas Team Advancing Health Through Nursing, *Texas Nursing*, 11.
- 89 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 34, and references therein.
- 90 Médecins Sans Frontières, *Help Wanted*, 6.
- 91 Pittman et al., *US-Based International Nurse Recruitment*, 18.
- 92 Benatar, “An Examination of Ethical Aspects,” 5.
- 93 Ibid.
- 94 Abuja, Federal Republic of Nigeria, Abuja Declaration, para 26.
- 95 Médecins Sans Frontières, *Help Wanted*, 6.
- 96 Professor Benatar based his statement on findings in *Rigged Rules and Double Standards*.
- 97 Joint Learning Initiative, *Human Resources for Health*, 84; Kuehn, “Global Shortage of Health Workers,” 1854.
- 98 World Health Organization, *World Health Report 2006*, 108.
- 99 Médecins Sans Frontières, *Help Wanted*, 6.
- 100 International Council of Nurses et al., *Global Nursing Shortage*, 7.
- 101 See Médecins Sans Frontières, *Help Wanted*; Institute of Medicine, *PEPFAR Implementation*.
- 102 Médecins Sans Frontières, *Help Wanted*, 3.
- 103 The Millennium Challenge Account committed US\$140 million to improve the physical infrastructure at various health facilities, but it is estimated that 600 additional health care workers would be needed to staff these new and rehabilitated health structures, and the Millennium Challenge Account has made no plans to source these people: Médecins Sans Frontières, *Help Wanted*, 11.
- 104 Gostin et al., *Joint Learning Initiative on National and Global Responsibility*.
- 105 Gostin, “President’s Emergency Plan for AIDS Relief.”
- 106 Moore and Morrison, *Health Worker Shortages Challenge PEPFAR Options*, 6.
- 107 Institute of Medicine, *PEPFAR Implementation*, 14–15, 244, 255.

- 108 Médecins Sans Frontières, *Help Wanted*, 6; Moore and Morrison, *Health Worker Shortages Challenge PEPFAR Options*, 7.
- 109 Schatz, “Zambia’s Health Worker Crisis,” 639.
- 110 McCoy, “Salaries and Incomes of Health Workers,” 678.
- 111 Buchan and Calman, *Global Shortage of Registered Nurses*, 25.
- 112 Médecins Sans Frontières, *Help Wanted*, 5.
- 113 Nurse turnover rates are high in hospitals and nursing homes in the United States, Canada, and the UK: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1314.
- 114 Buchan and Calman, *Global Shortage of Registered Nurses*, 21.
- 115 Mills et al., “Should Active Recruitment of Health Workers,” 695.
- 116 Aiken et al., “Nurses’ Reports on Hospital Care,” 48.
- 117 Joint Learning Initiative, *Human Resources for Health*, 75. Public sector wages in Tanzania in 1998 were 70% of the level they were in 1969; Schatz, “Zambia’s health worker crisis,” 638.
- 118 Buchan and Calman, *Global Shortage of Registered Nurses*, 6, 29.
- 119 Joint Learning Initiative, *Human Resources for Health*, 75.
- 120 Médecins Sans Frontières, *Help Wanted*, 16. Often, these per diems are paid for by donors who choose not to invest in remuneration increases for health professionals.
- 121 Médecins Sans Frontières, *Help Wanted*, 7; Buchan and Calman, *Global Shortage of Registered Nurses*, 24.
- 122 Buchan and Calman, *Global Shortage of Registered Nurses*, 21.
- 123 International Council of Nurses et al., *Global Nursing Shortage*, 8.
- 124 Awases et al., *Migration of Health Professionals*, 54.
- 125 Mills et al., “Should Active Recruitment of Health Workers,” 687. Some of the additional workload comes from meeting reporting requirements for multiple donors: World Health Organization, *World Health Report 2006*, 21.
- 126 Médecins Sans Frontières, *Help Wanted*, 4.
- 127 Aiken et al., “Nurses’ Reports on Hospital Care,” 47. For a discussion of the links between the nursing workforce, patient outcomes, and quality of care, see Institute of Medicine, *Keeping Patients Safe*.
- 128 Aiken et al., “Nurses’ Reports on Hospital Care,” 48.
- 129 *Ibid.*, 49.
- 130 *Ibid.*, 45.
- 131 In Sweden, research showed one had a 24% chance of experiencing workplace violence if employed as a health care worker, compared with 5% as a police officer and 2% as a security worker: World Health Organization, *World Health Report 2006*, 105.
- 132 In the United States and Canada, respectively, 58.3% and 39.9% of nurses surveyed reported a decrease in the number of nurse managers in the last year. In the same countries, respectively,

- 16.8% and 25% of nurses reported the loss of a chief nursing officer without replacement: Aiken et al., “Nurses’ Reports on Hospital Care,” 51.
- 133 World Health Organization, *World Health Report 2006*, xxiii.
- 134 Buchan and Calman, *Global Shortage of Registered Nurses*, 5.
- 135 Buerhaus, “Current and Future State of the United States Nursing Workforce”; Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 259. The recruitment of nurses from new cohorts is very important. There is no longer the guaranteed stream of female applicants to the nursing profession. In the past, nursing was one of a few careers open to women. But the removal of gender barriers to other professions has opened up a range of career paths to women, and nursing no longer has its lock on the female workforce: Buerhaus, “Current and Future State of the United States Nursing Workforce”; International Council of Nurses et al., *Global Nursing Shortage*, 5. See also Sullivan and Suez Mittman, “State of Diversity in the Health Professions.”
- 136 Buerhaus, “Current and Future State of the United States Nursing Workforce.”
- 137 Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 12.
- 138 *Ibid.*, 36–37.
- 139 Mills et al. “Should Active Recruitment of Health Workers,” 685.
- 140 Buchan and Calman, *Global Shortage of Registered Nurses*, 5.
- 141 *Ibid.*
- 142 *Ibid.*, 24.
- 143 Médecins Sans Frontières, *Help Wanted*, 3.
- 144 Schatz, “Zambia’s Health Worker Crisis,” 639.
- 145 Médecins Sans Frontières, *Help Wanted*, 17.
- 146 *Ibid.*
- 147 Dumont and Zurn, “Immigrant Health Workers,” 163.
- 148 *Ibid.*
- 149 *Ibid.*, 178.
- 150 The authors strongly disagree with the conduct of the nursing councils in Kerala, India, which, because they did not want to lose needed nurses, were slow to provide the documentation necessary for nurses to gain their work visas overseas: Pittman et al., *US-Based International Nurse Recruitment*, 19.
- 151 Dumont and Zurn, “Immigrant Health Workers,” 179.
- 152 *Ibid.*, 162; see also Awases et al., *Migration of Health Professionals*, 53.
- 153 Pittman et al., *US-Based International Nurse Recruitment*, 17.
- 154 World Health Organization, *International Migration of Health Personnel*.
- 155 Dumont and Zurn, “Immigrant Health Workers”; Stilwell et al., “Migration of Healthcare Workers,” 596. See Clemens and Pettersson, “New Data on African Health Professionals”; Mullan, “Metrics of the Physician.”
- 156 Dumont and Zurn, “Immigrant Health Workers,” 164.

- 157 Ibid.
- 158 Ibid., 165.
- 159 Dumont and Zurn, “Immigrant Health Workers,” 172. There also seems to be considerable migration between low- and middle-income countries. Nurses often leave poor nations in Southern Africa for South Africa: Robinson and Clark, “Forging Solutions.”
- 160 Dumont and Zurn, “Immigrant Health Workers,” 172. Latin America is also an important source region for health professionals to the United States.
- 161 Dumont and Zurn, “Immigrant Health Workers,” 175. In the United States, the main source country for nurses is the Philippines (76,000), but this number is expected to decline and India is expected to become a more significant player in terms of a source of nurses for the US labor market. India is already the main source of physicians to the United States: Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 26. It is interesting to note that China is not expected to become a greater source of nurses to the United States because there are very few nursing schools in China, and language proficiency is a real obstacle.
- 162 The top 25 countries of origin for migrant nurses in the OECD are, in order: Philippines, UK, Germany, Jamaica, Canada, India, Ireland, Nigeria, Haiti, former Yugoslavia, Mexico, China, former USSR, Trinidad and Tobago, Poland, Algeria, France, Malaysia, New Zealand, Guyana, Italy, Netherlands, Puerto Rico, United States, and South Africa: Dumont and Zurn, “Immigrant Health Workers,” 175. The top 25 countries of origin for migrant doctors in the OECD are, in order: India, Germany, UK, Philippines, China, former USSR, Algeria, Pakistan, Canada, Iran, Vietnam, South Africa, Egypt, Morocco, Cuba, Poland, Chinese Taipei, Romania, Syria, Malaysia, Sri Lanka, Nigeria, Lebanon, Italy, and the United States: Dumont and Zurn, “Immigrant Health Workers,” 175.
- 163 Dumont and Zurn, “Immigrant Health Workers,” 176.
- 164 Ibid.
- 165 Ibid.
- 166 Awases et al., *Migration of Health Professionals*, 53.
- 167 World Health Organization, *International Migration of Health Personnel*.
- 168 Gostin, “International Migration of Nurses”; Pillay and Mahlati, “Health-Worker Salaries and Incomes,” 633; Buchan and Calman, *Global Shortage of Registered Nurses*, 27.
- 169 Clemens and Pettersson highlight the correlation between the depletion of a country’s store of physicians and economic development by pointing to the fact that Kenya, Tanzania, and Zimbabwe all experienced decades of economic stagnation in the late 20th century and by its end, each had lost more than half of its physicians. They say African countries with greater stability, such as South Africa, Botswana, and Cote D’Ivoire, managed to keep their doctors: Clemens and Pettersson, “New Data on African Health Professionals Abroad,” 8.
- 170 Clemens and Pettersson also point to a correlation between the depletion of a country’s store

- of physicians and economic and political instability. Angola, Congo-Brazzaville, Guinea-Bassau, Liberia, Mozambique, Rwanda, and Sierra Leone all experienced civil war in the 1990s and all lost more than 40% of their physicians by 2000: Clemens and Pettersson, “New Data on African Health Professionals Abroad,” 8.
- 171 International Organization for Migration et al., *Health and Migration*, 74.
- 172 Buchan and Calman, *Global Shortage of Registered Nurses*, 26; Stilwell et al., “Migration of Healthcare Workers.”
- 173 Aiken and Cheung, “Nurse Workforce Challenges in the United States,” 25.
- 174 Kingma, *Nurses on the Move*.
- 175 Dumont and Zurn, “Immigrant Health Workers,” 195.
- 176 Benatar, “Examination of Ethical Aspects,” 5.
- 177 *Ibid.*, 3.
- 178 Dumont and Zurn, “Immigrant Health Workers”; Stilwell et al., “Migration of Healthcare Workers.”
- 179 For example, the United States requires nurses wishing to migrate to undergo a review of the nurse’s professional nursing education and licensure (with a requirement that nurse education has occurred at the postsecondary school level) and successfully complete the required English-language tests and the Commission on Graduates of Foreign Nursing Schools (CGFNS) Qualifying Examination or the National Council Licensure Examination (NCLEX): Aiken and Cheung, *Nurse Workforce Challenges in the United States*, 22.
- 180 See text to footnote 52 above.
- 181 Several countries offer visas to migrant physicians to work in rural areas. The United States and Australia both have such programs: Cooper, “US Physician Workforce,” 59; Dumont and Zurn, “Immigrant Health Workers,” 193.
- 182 A CGFNS survey found that recruitment of registered nurses accounted for approximately 90% of recruiter revenues, with recruitment of physiotherapists, occupational therapists, licensed practical nurses, speech pathologists, pharmacists, and lab technicians representing a small portion of their business: Pittman et al., *US-Based International Nurse Recruitment*, 4.
- 183 Pittman et al., *US-Based International Nurse Recruitment*, 15.
- 184 Pittman et al., *US-Based International Nurse Recruitment*, 4. International recruitment began to increase in about 1998 when demand for nurses started to rise: Aiken, “US Nurse Labor Market Dynamics Are Key,” 1303. Pittman suggests that there was a tenfold increase in the number of nurse recruitment firms located in the United States between 1997 and 2007. These figures do not include health care organizations, which operate their own international recruitment services.
- 185 Pittman et al., *US-Based International Nurse Recruitment*, 4, 19.
- 186 *Ibid.*, 12–13.
- 187 *Ibid.*, 14.
- 188 Mills et al., “Should Active Recruitment of Health Workers,” 685.

- 189 Pittman et al., *US-Based International Nurse Recruitment*, 14.  
190 Ibid., 21–25.  
191 Ibid., 18.  
192 There is evidence of some health care organizations recruiting foreign-educated nurses as a means to keep employment costs low; it is less costly to employ a foreign-educated nurse than increasing salaries and benefits to try to retain local personnel or hiring a per-diem or travel nurse: Pittman et al., *US-Based International Nurse Recruitment*, 8.  
193 Benatar, “Examination of Ethical Aspects,” 5.  
194 See Benatar, “Examination of Ethical Aspects”; Dwyer, “What’s Wrong with the Global Migration.”

#### CHAPTER 4

- 1 World Health Organization, Constitution of the World Health Organization, Preamble. Opened for signature on July 22, 1946, entered into force April 7, 1948.
- 2 UN General Assembly, International Covenant on Economic, Social and Cultural Rights. Opened for signature December 16, 1966, entered into force January 3, 1976. It now has 157 parties. The right is also included in many other human rights instruments.
- 3 The importance of the health workforce to the health system is recognized also in the Preamble to the World Health Organization; World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 4 UN General Assembly, International Covenant on Civil and Political Rights. Opened for signature December 16, 1966, entered into force March 23, 1976. The United States signed the ICCPR on October 5, 1977, and ratified it on June 8, 1992. The United States has entered reservations to the Covenant: see [http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=IV-4&chapter=4&lang=en#EndDec](http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-4&chapter=4&lang=en#EndDec).
- 5 Note Article 3.4 of the WHO Code, which states that “nothing in the Code should be interpreted as limiting the freedom of health personnel . . . to migrate to countries that wish to admit and employ them”: World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 6 Pittman et al., *US-Based International Nurse Recruitment*, 21–25.
- 7 See, e.g., UN General Assembly, International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families.
- 8 There is a question whether workers may also have an ethical obligation to serve in their home countries where there is a desperate need for health workers.
- 9 For example, Trinidad and Tobago introduced a three-year compulsory service requirement for local nurses: Bach, *International Migration of Health Workers*, 14. Bonding or compulsory service regulations in South Africa and Malawi have been used to compel locally trained doctors to serve in rural areas: Joint Learning Initiative, *Human Resources for Health*, 74.

- 10 Benatar, “Examination of Ethical Aspects,” 4–5.
- 11 Bach, *International Migration of Health Workers*, 14.
- 12 Gostin et al., “Joint Action and Learning Initiative.”
- 13 See Commission on Social Determinants of Health, *Closing the Gap in a Generation*.
- 14 See Gostin, “Meeting Basic Survival Needs of the World’s Least Healthy People,” 353; Kickbusch, “SARS: Wake-Up Call.” Article 3.1 of the WHO Code also speaks of “the health of all people being fundamental to the attainment of peace and security”: World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 15 Walzer, *Spheres of Justice*.
- 16 Other sources of the obligations include the WHO’s International Health Regulations. Articles 6(1), 6(2), 13, parts IV and V. Entered into force June 15, 2007. Also World Health Organization, Constitution of the World Health Organization, Preamble. Opened for signature on July 22, 1946, entered into force April 7, 1948.
- 17 Committee on Economic, Social and Cultural Rights, “General Comment 3,” [1]; Committee on Economic, Social and Cultural Rights, “General Comment 14,” [30]; United Nations, “Limburg Principles on the Implementation,” [16].
- 18 Committee on Economic, Social and Cultural Rights, “General Comment 14,” [30].
- 19 Committee on Economic, Social and Cultural Rights, “General Comment 14,” [31].
- 20 Human Rights Council, *Report of the Special Rapporteur*, 66.
- 21 The responsibility of states for the health of their people is reiterated in Article 3.1 of the WHO Code: World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 22 Gostin, *Public Health Law*.
- 23 Gostin, “International Development Assistance for Health”; Institute of Medicine, *US Commitment to Global Health*.
- 24 Institute of Medicine, *US Commitment to Global Health*.
- 25 Levine, “Healthy Foreign Policy,” 43.
- 26 Ruger and Kim, “Global Health Inequalities.”
- 27 Nagel, “Problem of Global Justice.”
- 28 Fidler, “Globalized Theory of Public Health Law.”
- 29 Taylor, “Governing the Globalization of Public Health.”
- 30 Group of Eight, Summit Document on Africa.
- 31 United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, 22 USC 7601 (2003).
- 32 Das Gupta and Gostin, *How Can Donors Help Build*.
- 33 World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 34 Bach, *International Migration of Health Workers*, 13.

- 35 World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel. See also Articles 5.4 and 5.6.
- 36 Questions arise as to the utility of codes of practice: see, e.g., Willetts and Martineau, *Ethical International Recruitment*; World Health Organization, *International Migration of Health Personnel* [15]; Robinson and Clark, “Forging Solutions to Health Worker Migration,” 691. However, there do not seem to be any clear examples of legal obligations on states or other parties not to engage in active recruitment; one might expect that a contractual requirement of being an approved National Health Service provider would be compliance with the UK Code, such that failure to comply with the terms of the UK Code would have legally enforceable contractual consequences. It should also be acknowledged that there is an argument that the recruitment of health workers from developing countries is in contravention of customary international law and constitutes a crime under international law: see Mills et al., “Should Active Recruitment of Health Workers.”
- 37 Benatar, “Examination of Ethical Aspects,” 5.
- 38 World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 39 UK Department of Health, Code of Practice for the International Recruitment of Healthcare Professionals, 10; National Health Service, Code of Practice for the International Recruitment of Healthcare Professionals in Scotland, 100. The Republic of South Africa Department of Health has also issued Policy: Recruitment and Employment of Foreign Health Professionals in the Republic of South Africa, which in Article 4.7 states that “recruitment of individual applicants from identified developing countries, in particular from another [Southern African Development Community] country, will not be endorsed by the Department.” The approach of prohibiting active recruitment in countries with health workforce shortages is expressly endorsed in the World Federation of Public Health Associations’ Ethical Restrictions on International Recruitment of Health Professionals from Low-Income Countries. The approach in the Commonwealth Health Ministers’ Commonwealth Code of Practice for the International Recruitment of Health Workers is “softer” than the UK Code, South African Policy, or the World Federation of Public Health Associations’ policy. Although Article 8 of the Commonwealth Code states that the purpose of the Code is to “discourage the targeted recruitment of health workers from countries which themselves are experiencing shortages,” the Code does not take the same prohibitory stance as the World Federation of Public Health Associations’ policy. It states that “transparency should characterize any activities to recruit health care workers from one country to another. This would normally involve an agreement between recruiting countries and the source countries” (Article 12). It also states that as a matter of fairness, “recruiters should not seek to recruit health care workers who have an outstanding obligation to their country” (Article 14). The Pacific Code of Practice for Recruitment of Health Workers of the Ministers of Health for Pacific Island Countries is very similar to the Commonwealth Code.

The American Public Health Association's policy position is entitled Ethical Restrictions on International Recruitment of Health Professionals to the U.S. (see Hagopian and Friedman), but it does not expressly suggest that there should be restrictions on recruitment. Instead, it "urges" US health organizations to "voluntarily adopt a code of ethics that guides their judicious management of the recruitment and employment of health professionals . . . from developing countries." In Part II, "Best Practices," the Foreign-Educated Nurses Code sets an "aspirational goal" for signatories to the Code of "avoiding active overseas recruitment in those countries or areas within countries that are experiencing either a temporary health crisis during which health professionals are in dire need or a chronic shortage of health workers.

- 40 UK Department of Health, Code of Practice for the International Recruitment of Healthcare Professionals, 15.
- 41 See Articles 3.5 and 4 of the WHO Code: World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 42 World Health Organization, *World Health Report 2006*, 101.
- 43 Bach, *International Migration of Health Workers*, 15.
- 44 Ibid.

## CHAPTER 5

- 1 Connors and Gostin, "Healthcare Reform."
- 2 US Agency for International Development, *Implementation of the Global Health Initiative*.
- 3 Rosen, "In New Directive."
- 4 See, for example, Gostin, "International Development Assistance for Health"; Institute of Medicine, *US Commitment to Global Health*; Birdsall, *White House and the World*; Garrett, *Future of Foreign Assistance*.
- 5 Gostin and Mok, "President's Global Health Initiative."
- 6 See chapter 3.
- 7 United Nations, *Millennium Development Goals*.
- 8 Henry J. Kaiser Family Foundation, *U.S. Funding for the Global Health Initiative (GHI)*.
- 9 Roehr, "More People Face Treatment Rationing."
- 10 World Health Organization, WHO Global Code of Practice on the International Recruitment of Health Personnel.
- 11 Development Research Centre on Migration, Globalisation and Poverty, *Making Migration Work*, 23.
- 12 See details of the Medical Education Partnership Initiative: <http://www.fic.nih.gov/programs/pages/medical-education-africa.aspx>; Nursing Education Partnership Initiative: <http://www.capacityplus.org/nursing-education-partnership-initiative-tackles-global-nursing-shortage>.

- 13 Gostin, “Meeting Basic Survival Needs.”
- 14 US President’s Emergency Program for AIDS Relief, *Human Resources for Health*.
- 15 Guidance for such a program may also be found in the Global Health Expansion, Access  
to Labor, Transparency and Harmonization Act, which was introduced to the House of  
Representatives on March 24, 2010, by Representative Barbara Lee (D-CA) and has been  
co-sponsored by 15 members of Congress. The bill has been referred to the Committee on  
Foreign Affairs and the Committee on Financial Services.
- 16 The first eight “GHI Plus” countries were announced on June 18, 2010. They are Bangladesh,  
Ethiopia, Guatemala, Kenya, Malawi, Mali, Nepal, and Rwanda. See US Department of State et  
al., *US Government Support for Global Health Efforts*.
- 17 World Health Organization, *Report on the WHO/PEPFAR Planning Meeting*.
- 18 World Health Organization, *Increasing Access to Health Workers*.
- 19 United Nations, *Monterrey Consensus on Financing for Development*, [42]. This was endorsed  
in the Doha Declaration: UN General Assembly, Doha Declaration on Financing for  
Development, [43].
- 20 United Nations Millennium Project, *Investing in Development*, 56–58.
- 21 Organisation for Economic Co-operation and Development, Development Cooperation  
Directorate.
- 22 Institute of Medicine, *US Commitment to Global Health*, 21.
- 23 *Ibid.*, 20
- 24 UN General Assembly, Doha Declaration on Financing for Development, [81].
- 25 World Health Organization, *Financial Crisis and Global Health*.
- 26 Institute of Medicine, *Future of Nursing*.
- 27 Anthony et al., *Community Health Workers in Massachusetts*.
- 28 Mason, “Health Care Reform.”
- 29 US Department of Health and Human Services, *HHS Awards \$96 Million*.
- 30 Institute of Medicine, *HHS in the 21st Century*, 107.
- 31 American College of Physicians, *Assuring Universal Access to Health Coverage*, 2.
- 32 *Ibid.*, 5–6.
- 33 Gostin et al., “Restoring Health to Health Reform.”
- 34 Miller, “Health Reform and the Physician Shortage.”
- 35 See Mullan et al., “Social Mission of Medical Education.”
- 36 Jacobson and Gostin, “Restoring Health to Health Reform.” See also Gostin et al.,  
“Restoring Health to Health Reform.”
- 37 Gostin, “International Migration and Recruitment of Nurses.”

## BIBLIOGRAPHY

- Abel, R.L. 1981. A Critique of Tort Law. *British Journal of Law and Society* 8(2):199–231. Available at <http://dx.doi.org/10.2307/1409721>.
- Abuja, Federal Republic of Nigeria. 2001. Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases. Abuja, Nigeria, April 27. Available at [http://www.un.org/ga/aids/pdf/abuja\\_declaration.pdf](http://www.un.org/ga/aids/pdf/abuja_declaration.pdf).
- Advisory Committee on Student Financial Assistance. 2006. *Mortgaging Our Future: How Financial Barriers to College Undercut America's Global Competitiveness*. Washington, DC: Advisory Committee on Student Financial Assistance. Available at <http://www2.ed.gov/about/bdscomm/list/acsfa/mof.pdf>.
- Advisory Committee on Student Financial Assistance. 2008. *Shifts in College Enrollment Increase Projected Losses in Bachelor's Degrees*. Washington, DC: Advisory Committee on Student Financial Assistance. Available at <http://ed.gov/about/bdscomm/list/acsfa/mofpolicybulletin.pdf>.
- Aiken, L.H. 2007. US Nurse Labor Market Dynamics Are Key to Global Nurse Sufficiency. *Health Services Research* 42(3p2):1299–1320. Available at <http://dx.doi.org/10.1111/j.1475-6773.2007.00714.x>.
- Aiken, L.H., and R. Cheung. 2008. Nurse Workforce Challenges in the United States: Implications for Policy. Health Working Paper No. 35, Organisation for Economic Co-operation and Development. Available at <http://www.oecd.org/dataoecd/34/9/41431864.pdf>.
- Aiken, L.H., S.P. Clarke, D.M. Sloane, J.A. Sochalski, R. Busse, H. Clarke, P. Giovannetti, J. Hunt, A.M. Rafferty, and J. Shamian. 2001. Nurses' Reports on Hospital Care in Five Countries. *Health Affairs* 20(3):43–53. Available at <http://dx.doi.org/10.1377/hlthaff.20.3.43>.
- American Association of Colleges of Nursing. 2011. *Despite Economic Challenges Facing Schools of Nursing, New AACN Data Confirm Sizable Growth in Doctoral Nursing Programs*. Washington, DC: American Association of Colleges of Nursing. Available at <http://www.aacn.nche.edu/news/articles/2011/enroll-surge>.
- American College of Physicians. 2009. *Assuring Universal Access to Health Coverage and Primary Care: A Report by America's Internists on the State of the Nation's Health Care 2009 and Recommendations for Reform*. Washington, DC: American College of Physicians. Available at [http://www.acponline.org/advocacy/events/state\\_of\\_healthcare/snhcbrief2009.pdf](http://www.acponline.org/advocacy/events/state_of_healthcare/snhcbrief2009.pdf).

Anand, S., and T. Bärnighausen. 2004. Human Resources and Health Outcomes: Cross-Country Econometric Study. *The Lancet* 364(9445):1603–9. Available at [http://dx.doi.org/10.1016/S0140-6736\(04\)17313-3](http://dx.doi.org/10.1016/S0140-6736(04)17313-3).

Anthony, S., R. Gowler, G. Hirsch, and G. Wilkinson. 2009. *Community Health Workers in Massachusetts: Improving Health Care and Public Health*. Boston: Massachusetts Department of Public Health. Available at [http://www.mass.gov/Eeohhs2/docs/dph/com\\_health/com\\_health\\_workers/legislature\\_report.pdf](http://www.mass.gov/Eeohhs2/docs/dph/com_health/com_health_workers/legislature_report.pdf).

Awases, M., A. Gbary, J. Nyoni, and R. Chatora. 2004. *Migration of Health Professionals in Six Countries: A Synthesis Report*. Brazzaville: World Health Organization. Available at <http://info.worldbank.org/etools/docs/library/206860/Migration%20study%20AFRO.pdf>.

Bach, S. International Migration of Health Workers: Labor and Social Issues. Geneva: Sectoral Activities, Working Paper, International Labor Organization, 2003.

Bärnighausen, T., D.E. Bloom, and S. Humair. 2007. Human Resources for Treating HIV/AIDS: Needs, Capacities and Gaps. *AIDS Patient Care and STDs* 21(11):799–812. Available at <http://dx.doi.org/10.1089/apc.2007.0193>.

Bazzoli, G.J., A. Gerland, and J. May. 2006. Construction Activity in US Hospitals. *Health Affairs* 25(3):783–91. Available at <http://dx.doi.org/10.1377/hlthaff.25.3.783>.

Belluck, P. 2009. In Turnabout, Children Take Caregiver Role. *New York Times*, February 22. Available at [http://www.nytimes.com/2009/02/23/health/23care.html?\\_r=1&sq=children caregivers&st=cse&scp=1&pagewanted=1](http://www.nytimes.com/2009/02/23/health/23care.html?_r=1&sq=children%20caregivers&st=cse&scp=1&pagewanted=1).

Benatar, S.R. 2007. An Examination of Ethical Aspects of Migration and Recruitment of Health Care Professionals from Developing Countries. *Clinical Ethics* 2(1):2–7. Available at <http://dx.doi.org/10.1258/147775007780267174>.

Birdsall, N., ed. 2008. *The White House and the World: A Global Development Agenda for the Next U.S. President*. Washington, DC: Center for Global Development. Available at <http://www.cgdev.org/content/publications/detail/16560>.

Bodenheimer, T., E. Chen, and H.D. Bennett. 2009. Confronting the Growing Burden of Chronic Disease: Can the U.S. Health Care Workforce Do the Job? *Health Affairs* 28(1):64–74. Available at <http://dx.doi.org/10.1377/hlthaff.28.1.64>.

- Buchan, J. 2009. Health Workforce Self-Sufficiency at a Time of Global Financial Crises: Desirable? Achievable? Lecture, University of Melbourne, Melbourne, Australia, November 12. Available at <http://www.ahwi.edu.au/files/ahwi/JimPP.pdf>.
- Buchan, J., and L. Calman. 2004. *The Global Shortage of Registered Nurses: An Overview of Issues and Actions*. Geneva: International Council of Nurses. Available at [http://www.icn.ch/images/stories/documents/publications/GNRI/Global\\_Shortage\\_of\\_Registered\\_Nurses\\_Full\\_report.pdf](http://www.icn.ch/images/stories/documents/publications/GNRI/Global_Shortage_of_Registered_Nurses_Full_report.pdf).
- Buerhaus, P.I. 2008. Current and Future State of the US Nursing Workforce. *JAMA* <http://dx.doi.org/10.1001/jama.2008.729>.
- Cheung, R., and L.H. Aiken. 2006. Hospital Initiatives to Support a Better-Educated Workforce. *Journal of Nursing Administration* 36(7-8):357–62. Available at [http://journals.lww.com/jonajournal/Abstract/2006/07000/Hospital\\_Initiatives\\_to\\_Support\\_a\\_Better\\_educated.7.aspx](http://journals.lww.com/jonajournal/Abstract/2006/07000/Hospital_Initiatives_to_Support_a_Better_educated.7.aspx).
- Chopra, M., S. Munro, J.N. Lavis, G. Vist, and S. Bennett. 2008. Effects of Policy Options for Human Resources for Health: An Analysis of Systematic Reviews. *The Lancet* 371(9613):668–74. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60305-0](http://dx.doi.org/10.1016/S0140-6736(08)60305-0).
- Clemens, M.A., and G. Pettersson. 2008. New Data on African Health Professionals Abroad. *Human Resources for Health* 6(1):1–11. Available at <http://www.human-resources-health.com/content/pdf/1478-4491-6-1.pdf>.
- Commission on Social Determinants of Health. 2008. *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health*. Geneva: World Health Organization. Available at [http://www.who.int/social\\_determinants/thecommission/finalreport/en/index.html](http://www.who.int/social_determinants/thecommission/finalreport/en/index.html).
- Committee on Economic, Social and Cultural Rights. 1990. General Comment 3: The Nature of States Parties Obligations. Article 2(1) of the International Covenant on Economic, Social and Cultural Rights. UN doc. E/1991/23. Available at <http://www.unhchr.ch/tbs/doc.nsf/0/94bdbaf59b43a424c12563ed0052b664?Opendocument>.
- Committee on Economic, Social and Cultural Rights. 2000. General Comment 14: The Right to the Highest Attainable Standard of Health. Article 12 of the International Covenant on Economic, Social and Cultural Rights. UN doc. E/C.12/2000/4. Available at [http://www.unhchr.ch/tbs/doc.nsf/\(symbol\)/E.C.12.2000.4.En](http://www.unhchr.ch/tbs/doc.nsf/(symbol)/E.C.12.2000.4.En).

- Commonwealth Health Ministers. 2003. Commonwealth Code of Practice for the International Recruitment of Health Workers. Adopted at the Pre-WHA Meeting of Commonwealth Health Ministers, Geneva, May 18. Available at [http://www.thecommonwealth.org/shared\\_asp\\_files/uploadedfiles/%7B7BDD970B-53AE-441D-81DB-1B64C37E992A%7D\\_CommonwealthCodeofPractice.pdf](http://www.thecommonwealth.org/shared_asp_files/uploadedfiles/%7B7BDD970B-53AE-441D-81DB-1B64C37E992A%7D_CommonwealthCodeofPractice.pdf).
- Connors, E.E., and L.O. Gostin. 2010. Healthcare Reform: A Historic Moment in US Social Policy. *JAMA* 303(24):2521–22. Available at <http://dx.doi.org/10.1001/jama.2010.856>.
- Cooper, R.A. 2008. The US Physician Workforce: Where Do We Stand? Health Working Paper No. 37, Organisation for Economic Co-operation and Development. Available at <http://www.oecd.org/dataoecd/48/1/41500843.pdf>.
- Crisp, N., B. Gawanas, and I. Sharp. 2008. Training the Health Workforce: Scaling Up, Saving Lives. *The Lancet* 371(9613):689–91. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60309-8](http://dx.doi.org/10.1016/S0140-6736(08)60309-8).
- Das Gupta, M., and L.O. Gostin. 2009. How Can Donors Help Build Global Public Goods in Health? Policy Research Working Paper No. WPS 4907, World Bank. Available at [http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469072&piPK=64165421&menuPK=64166322&entityID=000158349\\_20090420112159](http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469072&piPK=64165421&menuPK=64166322&entityID=000158349_20090420112159).
- Development Research Centre on Migration, Globalisation and Poverty. 2009. *Making Migration Work for Development*. Brighton, UK: University of Sussex. Available at [http://www.migrationdrc.org/publications/misc/Making\\_Migration\\_Work\\_for\\_Development.pdf](http://www.migrationdrc.org/publications/misc/Making_Migration_Work_for_Development.pdf).
- Dumont, J.-C., and P. Zurn. 2007. Immigrant Health Workers in OECD Countries in the Broader Context of Highly Skilled Migration. *International Migration Outlook*, part 3. Organisation for Economic Co-operation and Development. Available at <http://www.oecd.org/dataoecd/22/32/41515701.pdf>.
- Dwyer, J. 2007. What's Wrong with the Global Migration of Healthcare Professionals? Individual Rights and International Justice. *Hastings Center Report* 37(5):36–43. Available at <http://dx.doi.org/10.1353/hcr.2007.0070>.
- European Symposium. 2005. *Towards a Society for All Ages: Employment, Health, Pensions and Intergenerational Solidarity*. Brussels: European Commission, Employment and Social Affairs. Available at [http://ec.europa.eu/employment\\_social/soc-prot/ageing/vienna/vienna\\_en.pdf](http://ec.europa.eu/employment_social/soc-prot/ageing/vienna/vienna_en.pdf).

- Fidler, D.P. 2002. A Globalized Theory of Public Health Law. *Journal of Law, Medicine and Ethics* 30(2):150–61. Available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1748-720X.2002.tb00382.x/abstract>.
- Friedman, T.L. 2000. *The Lexus and the Olive Tree: Understanding Globalization*. 2nd ed. New York: First Anchor Books. Available at <http://www.amazon.com/Lexus-Olive-Tree-Understanding-Globalization/dp/0385499345>.
- Garrett, L.A. 2009. *The Future of Foreign Assistance amid Global Economic and Financial Crisis: Advancing Global Health in the US Development Agenda*. New York: Council on Foreign Relations Press. Available at <http://www.cfr.org/global-governance/future-foreign-assistance-amid-global-economic-financial-crisis/p18167>.
- Georgetown University. Mission toward Patient Care Takes Flight through Nurses SOAR! Program and Classes, Mallinson’s Training Reaches Students and Professionals. *University News*. Accessed August 29, 2011. Available at <http://explore.georgetown.edu/news/?ID=33477>.
- Global Health Expansion, Access to Labor, Transparency, and Harmonization Act of 2010. 2010. H.R. 4933. 111th Cong., Introduced March 24. Available at <http://www.govtrack.us/congress/bill.xpd?bill=h111-4933>.
- Gostin, L.O. 2008. International Development Assistance for Health: Ten Priorities for the Next President. *Hastings Center Report* 38(5):10–11. <http://dx.doi.org/10.1353/hcr.0.0061>.
- Gostin, L.O. 2008. The International Migration and Recruitment of Nurses: Human Rights and Global Justice. *JAMA* 299(15):1827–29. Available at <http://dx.doi.org/10.1001/jama.299.15.1827>.
- Gostin, L.O. 2008. Meeting Basic Survival Needs of the World’s Least Healthy People: Toward a Framework Convention on Global Health. *Georgetown Law Journal* 96:331–92. Available at <http://ssrn.com/abstract=1014082>.
- Gostin, L.O. 2008. President’s Emergency Plan for AIDS Relief: Health Development at the Crossroad. *JAMA* 300(17):2046–48. Available at <http://dx.doi.org/10.1001/jama.2008.588>.
- Gostin, L.O. 2008. *Public Health Law: Power, Duty, Restraint*. 2nd ed. Berkeley, CA, and New York: University of California Press and Milbank Memorial Fund. Available at <http://www.ucpress.edu/book.php?isbn=9780520253766>.

Gostin, L.O., E.A. Friedman, G. Ooms, T. Gebauer, N. Gupta, D. Sridhar, W. Chengaung, J.-A. Rottingen, and D. Sanders. The Joint Action and Learning Initiative: Towards a Global Agreement on National and Global Responsibilities for Health. *PLoS Medicine* 8(5):e1001031. Available at <http://dx.doi.org/10.1371/journal.pmed.1001031>.

Gostin L.O., P.D. Jacobson, K.L. Record, and L.E. Hardcastle. 2011. Restoring Health to Health Reform: Integrating Medicine and Public Health to Advance the Population's Well-Being. *University of Pennsylvania Law Review* 159:1777–1823. Available at <http://www.pennumbra.com/issues/pdfs/159-6/Gostin.pdf>.

Gostin, L.O., and E.A. Mok. 2010. The President's Global Health Initiative. *JAMA* 304(7):789–90. Available at <http://dx.doi.org/10.1001/jama.2010.1164>.

Gostin, L.O., G. Ooms, M. Heywood, J.-A. Rottingen, S. Møgedal, J. Haffeld, E.A. Friedman, and H. Siem. 2010. *The Joint Learning Initiative on National and Global Responsibility for Health*. World Health Report Background Paper No. 53; Georgetown Public Law Research Paper No.10-70. Available at <http://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=1471&context=facpub&sei-redir=1#search=%22Joint%20Learning%20Initiative%20National%20Global%20Responsibility%20Health%22>.

Group of Eight. 2005. Summit Document on Africa. Gleneagles Summit, Scotland. Available at [http://data.unaids.org/topics/universalaccess/postg8\\_gleneagles\\_africa\\_en.pdf](http://data.unaids.org/topics/universalaccess/postg8_gleneagles_africa_en.pdf).

Hagopian A., and E. Friedman. 2006. Ethical Restrictions on International Recruitment of Health Professionals to the U.S. Washington, DC: American Public Health Association. Available at <http://www.apha.org/programs/globalhealth/section/advocacy/globalihstest2.htm>.

Hansen, M., and L. Tobler. 2008. Community Health Workers. *NCSL Legisbrief* 16(7):1–2.

Henry J. Kaiser Family Foundation. 2011. *U.S. Funding for the Global Health Initiative (GHI): The President's FY 2012 Budget Request*. Available at <http://www.kff.org/globalhealth/8160.cfm>.

Ho, C.S., and L.O. Gostin. 2009. The Social Face of Economic Growth: China's Health System in Transition. *JAMA* 301(17):1809–11. Available at <http://dx.doi.org/10.1001/jama.2009.555>.

Holzemer, W.L. 2008. Building a Qualified Global Nursing Workforce. *International Nursing Review* 55(3):241–42. Available at <http://dx.doi.org/10.1111/j.1466-7657.2008.00675.x>.

Human Rights Council. 2007. *Report of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*. UN doc. A/HRC/4/28, January 17.

Institute of Medicine. 2004. *Keeping Patients Safe: Transforming the Work Environment of Nurses*. Washington, DC: National Academies Press Available at [http://www.nap.edu/catalog.php?record\\_id=10851](http://www.nap.edu/catalog.php?record_id=10851).

Institute of Medicine. 2007. *PEPFAR Implementation: Progress and Promise*. Washington, DC: National Academies Press. Available at [http://www.nap.edu/catalog.php?record\\_id=11905](http://www.nap.edu/catalog.php?record_id=11905).

Institute of Medicine. 2008. *HHS in the 21st Century: Charting a New Course for a Healthier America*. Washington, DC: National Academies Press. Available at [http://www.nap.edu/catalog.php?record\\_id=12513](http://www.nap.edu/catalog.php?record_id=12513).

Institute of Medicine. 2009. *Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report*. Washington, DC: National Academies Press. Available at [http://www.nap.edu/catalog.php?record\\_id=12749](http://www.nap.edu/catalog.php?record_id=12749).

Institute of Medicine. 2009. *The US Commitment to Global Health: Recommendations for the New Administration*. Washington, DC: National Academies Press. Available at [http://www.nap.edu/catalog.php?record\\_id=12506](http://www.nap.edu/catalog.php?record_id=12506).

Institute of Medicine. 2011. *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: National Academies Press. Available at [http://www.nap.edu/catalog.php?record\\_id=12956](http://www.nap.edu/catalog.php?record_id=12956).

International Council of Nurses, Florence Nightingale International Foundation, and Burdett Trust for Nursing. 2006. *The Global Nursing Shortage: Priority Areas for Intervention*. Geneva: International Council of Nurses. Available at [http://www.icn.ch/images/stories/documents/publications/GNRI/The\\_Global\\_Nursing\\_Shortage-Priority\\_Areas\\_for\\_Intervention.pdf](http://www.icn.ch/images/stories/documents/publications/GNRI/The_Global_Nursing_Shortage-Priority_Areas_for_Intervention.pdf).

International Organization for Migration. 2006. *Migration and Human Resources for Health: From Awareness to Action*. International Dialogue on Migration, No. 9. Geneva: International Organization for Migration. Available at [http://publications.iom.int/bookstore/free/IDM\\_9\\_EN.pdf](http://publications.iom.int/bookstore/free/IDM_9_EN.pdf).

International Organization for Migration, World Health Organization, and Centers for Disease Control and Prevention. 2005. *Health and Migration: Bridging the Gap*. International Dialogue on Migration, No. 6. Geneva: International Organization for Migration. Available at [http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published\\_docs/serial\\_publications/RedBook6\\_eng.pdf](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published_docs/serial_publications/RedBook6_eng.pdf).

Jacobson, P.D., and L.O. Gostin. 2010. Restoring Health to Health Reform. *JAMA* 304(1):85–86. Available at <http://dx.doi.org/10.1001/jama.2010.917>.

Joint Learning Initiative. 2004. *Human Resources for Health: Overcoming the Crisis*. Cambridge, MA: Harvard University and Global Equity Initiative. Available at [http://www.who.int/hrh/documents/JLi\\_hrh\\_report.pdf](http://www.who.int/hrh/documents/JLi_hrh_report.pdf).

Kickbusch, I. 2003. SARS: Wake-up Call for a Strong Global Health Policy. *Yale Global Online*. Available at <http://yaleglobal.yale.edu/content/sars-wake-call-strong-global-health-policy>.

Kingma, M. 2006. *Nurses on the Move: Migration and the Global Health Care Economy*. Ithaca, NY: Cornell University Press. Available at <http://www.amazon.com/Nurses-Move-Migration-Global-Economy/dp/0801472598>.

Kuehn, B.M. 2007. Global Shortage of Health Workers, Brain Drain Stress Developing Countries. *JAMA* 298(16):1853–55. Available at <http://dx.doi.org/10.1001/jama.298.16.1853>.

Levine, C. 2009. All in the Family: Children as Home Health Aides. *Bioethics Forum*, February 27. Available at <http://www.thehastingscenter.org/Bioethicsforum/Post.aspx?id=3220>.

Levine, R. 2008. Healthy Foreign Policy: Bringing Coherence to the Global Health Agenda. In *The White House and the World: A Global Development Agenda for the Next US President*, edited by N. Birdsall, pp. 43–63. Washington, DC: Center for Global Development. Available at <http://www.cgdev.org/content/publications/detail/16560>.

Lewin, S., S. Munabi-Babigumira, C. Glenton, K. Daniels, X. Bosch-Capblanch, B.E. van Wyk, J. Odgaard-Jensen, M. Johansen, G.N. Aja, M. Zwarenstein, and I.B. Scheel. 2010. Lay Health Workers in Primary and Community Health Care for Maternal and Child Health and the Management of Infectious Diseases. *Cochrane Database of Systematic Reviews* 3. Available at <http://www2.cochrane.org/reviews/en/ab004015.html>.

Lopez, A.D., C.D. Mathers, M. Ezzati, D.T. Jamison, and C.J.L. Murray, eds. 2004. *Global Burden of Diseases and Risk Factors*. Washington, DC: World Bank and Oxford University Press. Available at <http://www.dcp2.org/pubs/GBD>.

Mason, D.J. 2010. Health Care Reform: What's in It for Nursing? *American Journal of Nursing* 110(7):24–26. Available at <http://dx.doi.org/10.1097/01.NAJ.0000383926.07473.ba>.

McCoy, D., S. Bennett, S. Witter, B. Pond, B. Baker, J. Gow, S. Chand, T. Ensor, and B. McPake. 2008. Salaries and Incomes of Health Workers in Sub-Saharan Africa. *The Lancet* 371(9613):675–81. Available at [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(08\)60306-2/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)60306-2/abstract).

Médecins Sans Frontières. 2007. *Help Wanted: Confronting the Health Care Worker Crisis to Expand Access to HIV/AIDS Treatment: MSF Experience in Southern Africa*. Johannesburg: Médecins Sans Frontières. Available at [http://www.msf.org/source/countries/africa/southafrica/2007/Help\\_Wanted.pdf](http://www.msf.org/source/countries/africa/southafrica/2007/Help_Wanted.pdf).

Miller, P. 2010. *Health Reform and the Physician Shortage*. Danvers, MA: Health Leaders Media. Available at <http://www.healthleadersmedia.com/page-1/PHY-250977/Health-Reform-and-the-Physician-Shortage>.

Mills, E.J., W.A. Schabas, J. Volmink, R. Walker, N. Ford, E. Katabira, A. Anema, M. Joffres, P. Cahn, and J. Montaner. 2008. Should Active Recruitment of Health Workers from Sub-Saharan Africa Be Viewed as a Crime? *The Lancet* 371(9613):685–88. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60308-6](http://dx.doi.org/10.1016/S0140-6736(08)60308-6).

Ministers of Health for Pacific Island Countries. 2007. *Pacific Code of Practice for Recruitment of Health Workers*. Port Vila, Vanuatu: World Health Organization. Available at <http://www.wpro.who.int/NR/rdonlyres/6B618EAA-B30B-4CFA-8038-A9F145174895/0/Pacificcodeofpractice.pdf>.

Moore, A., and J.S. Morrison. 2007. *Health Worker Shortages Challenge PEPFAR Options for Strengthening Health Systems*. Washington, DC: Center for Strategic and International Studies. Available at [http://csis.org/files/media/csis/pubs/071016\\_healthworker.pdf](http://csis.org/files/media/csis/pubs/071016_healthworker.pdf).

Mullan, F. 2005. The Metrics of the Physician Brain Drain. *New England Journal of Medicine* 353(17):1810–19. Available at <http://dx.doi.org/10.1056/NEJMsa050004>.

- Mullan, F., C. Chen, S. Petterson, G. Kolsky, and M. Spagnola. 2010. The Social Mission of Medical Education: Ranking the Schools. *Annals of Internal Medicine* 152(12):804–11. Available at <http://www.annals.org/content/152/12/804.full>.
- Nagel, T. 2005. The Problem of Global Justice. *Philosophy and Public Affairs* 33(2):113–47. Available at <http://dx.doi.org/10.1111/j.1088-4963.2005.00027.x>.
- National Health Service Scotland. 2006. Code of Practice for the International Recruitment of Healthcare Professionals in Scotland. Edinburgh: Scottish Executive. Available at <http://nhsrecruitment.scotland.gov.uk/files/CodeofPracticeFinalVersion.pdf>.
- Norr, K., B. McElmurry, and S.J. Misner. 1999. The Community Health Advocate’s Point of View. In *Primary Health Care in Urban Communities*, edited by B. McElmurry, C. Tyska, and R. Spreen Parker, pp. 55–78. Sudbury, MA: Jones and Bartlett. Available at <http://www.amazon.com/Primary-Health-Communities-National-Nursing/dp/0763710105>.
- Nylen, L., and L. Gensheimer. 2008. House Panel Votes to Increase Visas on Foreign Nurses. *CQ Today Online News*, August 1.
- Omaswa, F. 2008. Human Resources for Global Health: Time for Action Now. *The Lancet* 371(9613):625–26. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60277-9](http://dx.doi.org/10.1016/S0140-6736(08)60277-9).
- Organisation for Economic Co-operation and Development. 2009. *Development Cooperation Directorate: Aid Statistics, Donor Aid Charts—United States, 2008–2009*. Available at <http://www.oecd.org/dataoecd/42/30/44285539.gif>.
- Over, M. 2008. Opportunities for Presidential Leadership on AIDS: From an “Emergency Plan” to a Sustainable Policy. In *The White House and the World: A Global Development Agenda for the Next US President*, edited by N. Birdsall, pp. 299–327. Washington, DC: Center for Global Development. Available at <http://www.cgdev.org/content/publications/detail/16560>.
- Oxfam. 2002. *Rigged Rules and Double Standards: Trade Globalization and the Fight against Poverty*. Oxford: Oxfam. Available at <http://www.maketrade-fair.com/en/index.php?file=03042002121618.htm>.
- Ozgediz, D., S. Kijjambu, M. Galukande, G. Dubowitz, J. Mabweijano, C. Mijumbi, M. Cherian, S. Kaggwa, and S. Luboga. 2008. Africa’s Neglected Surgical Workforce Crisis. *The Lancet* 371(9613):627–28. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60279-2](http://dx.doi.org/10.1016/S0140-6736(08)60279-2).

- Partnership to Fight Chronic Disease. 2008. *Almanac of Chronic Disease*. Washington, DC: Partnership to Fight Chronic Disease. Available at <http://www.heart-intl.net/HEART/012810-a/AlmanacofChronic.pdf>.
- Pick, W. 2008. Lack of Evidence Hampers Human-Resources Policy Making. *The Lancet* 371(9613):629–30. Available at [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(08\)60280-9/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)60280-9/fulltext).
- Pillay, Y., and P. Mahlati. 2008. Health-Worker Salaries and Incomes in Sub-Saharan Africa. *The Lancet* 371(9613):632–34. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60283-4](http://dx.doi.org/10.1016/S0140-6736(08)60283-4).
- Pittman, P., A. Folsom, E. Bass, and K. Leonhardy. 2007. *US-Based International Nurse Recruitment: Structure and Practices of a Burgeoning Industry*. Washington, DC: AcademyHealth. Available at <http://www.intlnursemigration.org/assets/pdfs/Report-on-Year-I.pdf>.
- Pogge, T. 2005. World Poverty and Human Rights. *Ethics & International Affairs* 19(1):1–7. Available at <http://dx.doi.org/10.1111/j.1747-7093.2005.tb00484.x>.
- Republic of South Africa Department of Health. 2004. Policy: Recruitment and Employment of Foreign Health Professionals in the Republic of South Africa. Pretoria, South Africa: Republic of South Africa Department of Health. Available at <http://www.doh.gov.za/docs/policy/recruitment.pdf>.
- Riley, P.L., S.M. Vindigni, J. Arudo, A.N. Waudu, A. Kamenju, J. Ngoya, E.O. Oywer, C.P. Rakwuom, M.E. Salmon, M. Kelley, M. Rogers, M.E. St. Louis, and L.H. Marum. 2007. Developing a Nursing Database System in Kenya. *Human Services Research* 42(3):1389–1405. Available at <http://dx.doi.org/10.1111/j.1475-6773.2007.00715.x>.
- Robinson, M., and P. Clark. 2008. Forging Solutions to Health Worker Migration. *The Lancet* 371(9613):691–93. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60310-4](http://dx.doi.org/10.1016/S0140-6736(08)60310-4).
- Roehr, B. 2010. More People Face Treatment Rationing as AIDS Funding Is Cut. *British Medical Journal* 340:c2284. Available at <http://dx.doi.org/10.1136/bmj.c2284>.
- Rosen, L. 2009. In New Directive, Obama Signs Off on Development Review. *The Cable: Foreign Policy*, August 31. Available at [http://thecable.foreignpolicy.com/posts/2009/08/31/in\\_new\\_directive\\_obama\\_signs\\_off\\_on\\_development\\_review](http://thecable.foreignpolicy.com/posts/2009/08/31/in_new_directive_obama_signs_off_on_development_review).

Ruger, J.P., and H.-J. Kim. 2006. Global Health Inequalities: An International Comparison. *Journal of Epidemiology and Community Health* 60(11):928–36. Available at <http://dx.doi.org/10.1136/jech.2005.041954>.

Schatz, J.J. 2008. Zambia's Health Worker Crisis. *The Lancet* 371(9613):638–39. Available at [http://dx.doi.org/10.1016/S0140-6736\(08\)60287-1](http://dx.doi.org/10.1016/S0140-6736(08)60287-1).

Stiglitz, J.E. 2002. *Globalization and Its Discontents*. New York: W.W. Norton & Company, Inc. Available at <http://www.amazon.com/Globalization-Its-Discontents-Joseph-Stiglitz/dp/0393051242>.

Stilwell, B., K. Diallo, P. Zurn, M. Vujicic, O. Adams, and M.D. Poz. 2004. Migration of Healthcare Workers from Developing Countries: Strategic Approaches to Its Management. *Bulletin of the World Health Organization* 82(8):595–600. Available at <http://www.who.int/bulletin/volumes/82/8/595arabic.pdf>.

Sullivan, L.W., and I. Suez Mittman. 2010. The State of Diversity in the Health Professions a Century after Flexner. *Academic Medicine* 85(2):246–53. Available at <http://dx.doi.org/10.1097/ACM.0b013e3181c88145>.

Taylor, A.L. Governing the Globalization of Public Health. *Journal of Law, Medicine and Ethics* 32(3):500–508. Available at <http://dx.doi.org/10.1111/j.1748-720X.2004.tb00163.x>.

Texas Team Advancing Health Through Nursing. 2008. *Texas Nursing: Our Future Depends on It*. Austin: Texas Department of State Health Services. Available at <http://www.dshs.state.tx.us/chs/cnws/TexasTeam/TexasStrategy.pdf>.

UK Department of Health. 2004. Code of Practice for the International Recruitment of Healthcare Professionals. Leeds: UK Department of Health. Available at [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_4097734.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4097734.pdf).

UN General Assembly. 1948. Resolution 217A, Universal Declaration of Human Rights. December 10. Available at [http://www.un.org/events/humanrights/2007/hrphotos/declaration%20\\_eng.pdf](http://www.un.org/events/humanrights/2007/hrphotos/declaration%20_eng.pdf).

UN General Assembly. 1966. Resolution 2200A (XXI), International Covenant on Civil and Political Rights. December 16. Available at <http://www2.ohchr.org/english/law/ccpr.htm>.

UN General Assembly. 1966. Resolution 2200A (XXI), International Covenant on Economic, Social and Cultural Rights. December 16. Available at <http://www2.ohchr.org/english/law/cescr.htm>.

UN General Assembly. 1990. International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families. December 18. Available at <http://www2.ohchr.org/english/law/cmw.htm>.

UN General Assembly. 2008. Doha Declaration on Financing for Development: Outcome Document of the Follow-up International Conference on Financing for Development to Review the Implementation of the Monterrey Consensus. Available at [http://www.un.org/esa/ffd/doha/documents/Doha\\_Declaration\\_FFD.pdf](http://www.un.org/esa/ffd/doha/documents/Doha_Declaration_FFD.pdf).

United Nations. 1987. The Limburg Principles on the Implementation of the International Covenant on Economic, Social and Cultural Rights, UN doc. E/CN.4/1987/17. Reprinted in *Human Rights Quarterly* 9:122–35. Available at <http://www.jstor.org/stable/762292>.

United Nations. 2002. *Monterrey Consensus on Financing for Development*. New York: United Nations. Available at <http://www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf>.

United Nations. 2008. *The Millennium Development Goals Report 2008*. New York: United Nations. Available at <http://www.un.org/millenniumgoals/pdf/The%20Millennium%20Development%20Goals%20Report%202008.pdf>.

United Nations Millennium Project. 2005. *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. New York: United Nations Development Programme. Available at <http://www.unmillenniumproject.org/documents/MainReportComplete-lowres.pdf>.

US Agency for International Development (USAID). 2010. *Implementation of the Global Health Initiative: Consultation Document*. Washington, DC: USAID. Available at [http://www.usaid.gov/our\\_work/global\\_health/home/Publications/docs/ghi\\_consultation\\_document.pdf](http://www.usaid.gov/our_work/global_health/home/Publications/docs/ghi_consultation_document.pdf).

US Department of Health and Human Services. 2002. *Projected Supply, Demand and Shortages of Registered Nurses: 2000–2020*. Washington, DC: US Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Available at [http://www.ahcancal.org/research\\_data/staffing/Documents/Registered\\_Nurse\\_Supply\\_Demand.pdf](http://www.ahcancal.org/research_data/staffing/Documents/Registered_Nurse_Supply_Demand.pdf).

US Department of Health and Human Services. 2010. HHS Awards \$96 Million to Train Health Professionals. Press release, July 1. Available at <http://www.hhs.gov/news/press/2010pres/07/20100701f.html>.

US Department of State, US Agency for International Development, and US Department of Health and Human Services. 2010. US Government Support for Global Health Efforts. Press release, June 18. Available at <http://www.state.gov/r/pa/prs/ps/2010/06/143307.htm>

US Leadership against HIV/AIDS, Tuberculosis, and Malaria Act of 2003. Pub. L. No. 108–25, 117 Stat. 711 (2003). Available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108\\_cong\\_public\\_laws&docid=f:publ025.108.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ025.108.pdf).

US President's Emergency Program for AIDS Relief. 2009. *Human Resources for Health*. Washington, DC: US Department of State, Office of US Global AIDS Coordinator and the Bureau of Public Affairs. Available at <http://www.pepfar.gov/strategy/ghi/134855.htm>.

Walzer, M. 1983. *Spheres of Justice: A Defence of Pluralism and Equality*. New York: Basic Books. Available at [http://www.amazon.com/Spheres-Justice-Defense-Pluralism-Equality/dp/0465081894/ref=cm\\_cr\\_pr\\_product\\_top](http://www.amazon.com/Spheres-Justice-Defense-Pluralism-Equality/dp/0465081894/ref=cm_cr_pr_product_top).

Willets, A., and T. Martineau. 2004. *Ethical International Recruitment of Health Professionals: Will Codes of Practice Protect Developing Country Health Systems?* Liverpool: Liverpool School of Tropical Medicine. Available at [http://www.medact.org/content/health/documents/brain\\_drain/Martineau%20codesofpracticereport.pdf](http://www.medact.org/content/health/documents/brain_drain/Martineau%20codesofpracticereport.pdf).

World Federation of Public Health Associations. 2005. Ethical Restrictions on International Recruitment of Health Professionals from Low-Income Countries. Geneva: World Federation of Public Health Associations. Available at [http://www.wfpha.org/tl\\_files/doc/resolutions/positionpapers/globaltrade/ETHICALRESTRICTIONSINTERNATIONALRECRUITMENT.pdf](http://www.wfpha.org/tl_files/doc/resolutions/positionpapers/globaltrade/ETHICALRESTRICTIONSINTERNATIONALRECRUITMENT.pdf).

World Health Organization. 1948. Constitution of the World Health Organization. Geneva: World Health Organization. Available at <http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf>.

World Health Organization. 2004. *The Global Burden of Disease: 2004 Update*. Geneva: World Health Organization. Available at [http://www.who.int/healthinfo/global\\_burden\\_disease/2004\\_report\\_update/en](http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en).

World Health Organization. 2004. *Human Resources in Health: Report by the Secretariat*. Geneva: World Health Organization. Available at [http://www.searo.who.int/LinkFiles/HRH\\_Documents\\_EB114\\_17-en.pdf](http://www.searo.who.int/LinkFiles/HRH_Documents_EB114_17-en.pdf).

World Health Organization. 2004. *WHO Estimates of Health Personnel: Physicians, Nurses, Midwives and Dentists, Pharmacists*. Geneva: World Health Organization.

World Health Organization. 2006. *International Migration of Health Personnel: A Challenge for Health Systems in Developing Countries*. Report A59/18, 59th World Health Assembly, May 4. Geneva: World Health Organization. Available at [http://apps.who.int/gb/ebwha/pdf\\_files/WHA59/A59\\_18-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA59/A59_18-en.pdf).

World Health Organization. 2006. *The World Health Report 2006—Working Together for Health*. Geneva: World Health Organization. Available at <http://www.who.int/whr/2006/en>.

World Health Organization. 2007. Paying for Health Services. Fact Sheet No. 320. Geneva: World Health Organization. Available at <http://www.who.int/mediacentre/factsheets/fs320.pdf>.

World Health Organization. 2007. *World Health Statistics 2007*. Geneva: World Health Organization. Available at <http://www.who.int/whosis/whostat2007/en>.

World Health Organization. 2007. International Health Regulations. Entered into force 15 June 2007. Articles 6(1), 6(2), 13, parts IV and V.

World Health Organization. 2008. Establishing and Monitoring Benchmarks for Human Resources for Health: The Workforce Density Approach. *Spotlight on Health Workforce Statistics* 6. Available at [http://www.who.int/hrh/statistics/Spotlight\\_6\\_Nov2008\\_benchmarking.pdf](http://www.who.int/hrh/statistics/Spotlight_6_Nov2008_benchmarking.pdf).

World Health Organization. 2008. *Task Shifting: Rational Redistribution of Tasks among Health Workforce Teams*. Geneva: World Health Organization. Available at <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>.

World Health Organization. 2008. The Top Ten Causes of Death. Fact Sheet No. 310. Geneva: World Health Organization. Available at [http://www.who.int/mediacentre/factsheets/fs310\\_2008.pdf](http://www.who.int/mediacentre/factsheets/fs310_2008.pdf).

World Health Organization. 2009. *The Financial Crisis and Global Health: Report of a High-Level Consultation*. Geneva: World Health Organization. Available at [http://www.who.int/mediacentre/events/meetings/2009\\_financial\\_crisis\\_report\\_en\\_.pdf](http://www.who.int/mediacentre/events/meetings/2009_financial_crisis_report_en_.pdf).

World Health Organization. 2009. *Report on the WHO/PEPFAR Planning Meeting on Scaling up Nursing and Medical Education, Geneva, 13-14 October 2009*. Geneva: WHO. Available at [http://www.who.int/hrh/resources/scaling-up\\_planning\\_report.pdf](http://www.who.int/hrh/resources/scaling-up_planning_report.pdf).

World Health Organization. 2010. *Global Atlas of the Health Workforce*. Geneva: World Health Organization. Available at <http://apps.who.int/globalatlas/default.asp>.

World Health Organization. 2010. *Increasing Access to Health Workers in Remote and Rural Areas through Improved Retention: Global Policy Recommendations*. Geneva: World Health Organization. Available at [http://whqlibdoc.who.int/publications/2010/9789241564014\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241564014_eng.pdf).

World Health Organization. 2010. WHO Global Code of Practice on the International Recruitment of Health Personnel. Geneva: World Health Organization. Available at [http://www.who.int/hrh/migration/code/WHO\\_global\\_code\\_of\\_practice\\_EN.pdf](http://www.who.int/hrh/migration/code/WHO_global_code_of_practice_EN.pdf).

World Health Organization. 2010. *The World Health Report—Health Systems Financing: The Path to Universal Coverage*. Geneva: World Health Organization. Available at <http://www.who.int/whr/2010/en/index.html>.

World Health Organization and Global Health Workforce Alliance. 2008. *Country Case Study: Malawi's Emergency Human Resources Programme*. Geneva: World Health Organization. Available at [http://www.who.int/workforcealliance/knowledge/case\\_studies/Malawi.pdf](http://www.who.int/workforcealliance/knowledge/case_studies/Malawi.pdf).

World Health Organization and World Bank. 2003. *High-Level Forum on the Health Millennium Development Goals: Improving Health Workforce Performance*. Geneva: World Health Organization. Available at <http://www.who.int/hdp/en/IP4-improving.pdf>.

## ABOUT THE AUTHORS

Paula O'Brien is a senior lecturer at Melbourne Law School, the University of Melbourne, Australia. She was also a fellow of the O'Neill Institute for National and Global Health Law at Georgetown University Law Center in 2008–2009.

Lawrence O. Gostin is University Professor at Georgetown University Law Center where he directs the O'Neill Institute for National and Global Health Law. He is the director of the World Health Organization Collaborating Center on Public Health Law and Human Rights. Gostin is a professor at the Georgetown University Medical Center and the Johns Hopkins Bloomberg School of Public Health. He is also a fellow at the Center for Socio-Legal Studies, Oxford University. During the completion of this report he was Visiting Professor of Global Health Law at the University of Sydney as well as the Miegunyah Distinguished International Fellow at Melbourne Law School, the University of Melbourne.

SELECTED PUBLICATIONS OF THE  
MILBANK MEMORIAL FUND

A complete list of the Fund's reports may be viewed online at [www.milbank.org](http://www.milbank.org). Single or multiple copies of reports that have print editions are available without charge while supplies last. Most reports are also available electronically on the Fund's website.

*Evolving Models of Behavioral Health Integration in Primary Care*

by Chris Collins, Denise Levis Hewson, Richard Munger, and Torlen Wade

2010 Available online

*Better Health, Not Just Better Health Care: A Prescription for Progress from the Big Cities*

*Health Coalition*

by David Kohn

2009 16 pages

*Healthy States/Healthy Nation: Essays for a New Administration and a New Congress*

by Members of the Reforming States Group

co-published with the Reforming States Group

2009 60 pages

*Evidence-Based Maternity Care: What It Is and What It Can Achieve*

by Carol Sakala and Maureen P. Corry

co-published with Childbirth Connection and the Reforming States Group

2008 Available online

*Medical Regulatory Authorities and the Quality of Medical Services in Canada and the United States*

co-published with the Federation of Medical Regulatory Authorities of Canada and the Federation of State Medical Boards

2008 32 pages

*Improving Population Health: The Uses of Systematic Reviews*

by Melissa Sweet and Ray Moynihan

produced in collaboration with the Centers for Disease Control and Prevention (CDC)

2007 80 pages

*Regulating Medical Services in China*

by Hong Wang, Yanfeng Ge, and Sen Gong

co-published with the Department of Social Development, Development Research Center (DRC), the State Council of P.R. China

2007 48 pages

*Public Housing and Supportive Services for the Frail Elderly: A Guide for Housing Authorities and Their Collaborators*

co-published with the Council of Large Public Housing Authorities

2006 Available online

*2005 Robert H. Ebert Memorial Lecture—Emerging and Re-emerging Infectious Diseases:*

*The Perpetual Challenge*

by Anthony S. Fauci

2006 Available online

*The Future of Academic Medicine: Five Scenarios to 2025*

by the International Campaign to Revitalise Academic Medicine

2005 Available online

**CALIFORNIA/MILBANK BOOKS ON HEALTH AND THE PUBLIC**

The following books are co-published with and distributed by the University of California Press.

For information or to order, call 1-800-777-4726 or visit <http://www.ucpress.edu>.

*Inside National Health Reform*

by John E. McDonough

2011 360 pages

\$34.95 cloth; \$34.95 Ebook

*House on Fire: The Fight to Eradicate Smallpox*

by William H. Foege

2011 240 pages

\$29.95 cloth; \$29.95 Ebook

*Public Health Law and Ethics: A Reader, Revised and Updated Second Edition*

edited by Lawrence O. Gostin

2010 600 pages

\$45.00 paper; \$45.00 Ebook

*Real Collaboration: What It Takes for Global Health to Succeed*

by Mark L. Rosenberg, Elisabeth S. Hayes, Margaret H. McIntyre, and Nancy Neill

2010 280 pages

\$60.00 cloth; \$26.95 paper; \$26.95 Ebook

*Public Health Law: Power, Duty, Restraint—Revised and Expanded Second Edition*

by Lawrence O. Gostin

2008 800 pages

\$45.00 paper; \$45.00 Ebook

*The Health Care Revolution: From Medical Monopoly to Market Competition*

by Carl F. Ameringer

2008 272 pages

\$60.00 cloth; \$60.00 Ebook

*Searching Eyes: Privacy, the State and Disease Surveillance in America*

by Amy L. Fairchild, Ronald Bayer, and James Colgrove

2007 368 pages

\$26.95 paper; \$20.00 Ebook

*Low Income, Social Growth, and Good Health: A History of Twelve Countries*

by James C. Riley

2007 248 pages

\$50.00 cloth

*Medicare Matters: What Geriatric Medicine Can Teach American Health Care*

by Christine K. Cassel

2007 272 pages

\$24.95 paper

*Disease and Democracy: The Industrialized World Faces AIDS*

by Peter Baldwin

2007 489 pages

\$25.95 paper; \$25.95 Ebook

The Fund also publishes *The Milbank Quarterly*, a multidisciplinary journal of population health and health policy. Information about subscribing to *The Milbank Quarterly* is available by calling 1-800-835-6770 or by visiting [www.milbank.org/quarterly](http://www.milbank.org/quarterly).

Information about other work of the Fund is available from the Fund at 645 Madison Ave., 15th Floor, New York, NY 10022. Telephone: (212) 355-8400. Fax: (212) 355-8599. Email: [mmf@milbank.org](mailto:mmf@milbank.org). On the Web: [www.milbank.org](http://www.milbank.org).

*Design and Typography:*  
The Boland Design Company

The Milbank Memorial Fund is an endowed operating foundation that works to improve health by helping decision makers in the public and private sectors acquire and use the best available evidence to inform policy for health care and population health. The Fund has engaged in nonpartisan analysis, study, research, and communication on significant issues in health policy since its inception in 1905.

**MILBANK MEMORIAL FUND**

**645 MADISON AVENUE**

**NEW YORK, NY 10022**

**[WWW.MILBANK.ORG](http://WWW.MILBANK.ORG)**