Global Action for Health System Strengthening

G8 Hokkaido Toyako Summit Follow-Up

Global Action for Health System Strengthening

Policy Recommendations to the G8

Task Force on Global Action for Health System Strengthening

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Table of Contents

List of Abbreviations

AIDS	acquired immune deficiency syndrome
CBHI	community-based health insurance
DHS	Demographic and Health Surveys
EHRP	Emergency Human Resources Program (Malawi)
EU	European Union
G8	Group of Eight
GAVI	Global Alliance for Vaccines and Immunization
GDP	gross domestic product
GHWA	Global Health Workforce Alliance
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
H8	Health Eight
HEP	Health Extension Program (Ethiopia)
HEW	health extension workers (Ethiopia)
HIV	human immunodeficiency virus
HRH	human resources for health
ICN	International Council of Nurses
IHP+	International Health Partnership and Related Initiatives
ILO	International Labour Organization
IMF	International Monetary Fund
JCIE	Japan Center for International Exchange
JLI	Joint Learning Initiative
MDG	Millennium Development Goal
MMR	maternal mortality ratio
NGO	nongovernmental organization
NHS	national health services
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
P4H	Providing for Health
PEPFAR	President's Emergency Plan for AIDS Relief (United States)
PHC	primary healthcare
SHI	social health insurance
U5MR	under-five mortality rate
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	US Agency for International Development
WHO	World Health Organization
WHS	World Health Survey

The G8 and Global Health: Emerging Architecture from the Toyako Summit

*Keizo Takemi and Michael R. Reich**

The declaration of the G8 Toyako Summit, held in Japan in early July 2008, covered global health issues under the topic of "Development and Africa." The official summary made the following statement on health:

> The G8 leaders welcomed the *Report of the G8 Health Experts Group*, presented along with its attached matrices showing G8 implementation of past commitments, and set forth the Toyako Framework for Action, which includes the principles for action on health. Furthermore, regarding the G8 commitment to provide $60 billion for health agreed at last year's G8 Heiligendamm Summit, the G8 leaders agreed to provide the said amount over five years. In addition, with regard to malaria prevention, leaders agreed to provide 100 million mosquito nets by the end of 2010.[1]

The *Report of the G8 Health Experts Group* was prepared by government officials in health and foreign policy from the G8 countries, with leadership from Japan, and covered a number of critical issues in global health.[2] The report reflected growing policy attention to health system strengthening by Japan and the global health community more broadly.[3] Prior to the summit, Keizo Takemi and a group of leaders from diverse sectors in Japan organized a Working Group on Challenges in Global Health and Japan's Contributions,

* The authors appreciate comments on earlier drafts of their paper received from Susan Hubbard, Laura Frost, Masamine Jimba, Scott Gordon, Michael Goroff, Sofia Gruskin, Ravindra Rannan-Eliya, Marc Roberts, and Kenji Shibuya. They also benefited from the research assistance provided by Meghan Reidy.

run by the Japan Center for International Exchange (JCIE)—a nonprofit and nongovernmental organization in international affairs and global issues—and involving key actors from government ministries, Japan's development agencies, academia, and NGOs. At the summit's conclusion, the government of Japan decided it needed a mechanism for following up on the new policy initiatives to which the G8 leaders had committed and engaged in a Track 2 process with the study group and JCIE to explore policy options. Those efforts were designed to identify action-oriented policy recommendations for the G8 on health system strengthening and to maintain momentum and continuity for future G8 summits, especially the 2009 meeting to be hosted by Italy.

This chapter provides an overview of Japan's activities on global health to follow up on the Toyako Summit declaration and presents the context for three chapters with policy recommendations for G8 action. Below, we review the emerging focus on health system strengthening and discuss the unique role of the G8 in global health governance and architecture. We then discuss the three policy chapters and conclude with a discussion of future directions.

A Growing Focus on Health Systems

The world is currently experiencing a shift in the global health agenda from an emphasis on disease-specific approaches to a focus on health system strengthening. These two approaches are often called the "vertical" and "horizontal" approaches to health improvement. In this debate, some have argued for a third compromise strategy that would combine the two into a "diagonal approach."[4] Others have called for this debate to "rest in peace."[5] We believe that a better balance needs to be found between the two approaches so that efforts at fighting specific diseases and strengthening health systems can support each other more effectively. But balance is difficult to define with precision, especially when the knowledge base is thin and contested about how vertical programs affect horizontal efforts; there is no good evidence that this is a zero-sum game, where improving one necessarily injures the other. Yet, clearly the disease-focused programs are nervous about shifts in global resources to health systems.

The growing attention to health systems can be attributed to several factors. First, the development of disease-specific approaches over the past decade has created various unintended consequences.[6] The disease-specific approaches have contributed greatly to health improvement, particularly since existing multilateral and national health agencies could not deal with the devastating

effects of diseases like HIV/AIDS in many developing countries. But, now recipient countries are confronted with a fragmented array of uncoordinated disease control programs promoted by multiple donors. The opportunity costs of servicing the disease-specific programs have been recognized as reducing the effectiveness of health ministries. In addition, the disease-specific programs attract financial and human resources away from government agencies and may be contributing to a weakness of health systems. Two of the major disease-specific programs—the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) and the Global Alliance for Vaccines and Immunization (GAVI) Alliance, a consortium of organizations to promote immunization and vaccination—have launched significant efforts to strengthen health systems in recipient countries. While those programs have encountered problems in implementation, they nonetheless reflect recognition of the need to develop both disease-specific and health-system-strengthening approaches.[7]

A second factor contributing to the focus on health systems is recent efforts by the World Health Organization (WHO) to restore policies for primary healthcare (PHC). The PHC approach was officially launched on the global stage through the Alma Ata Declaration of 1978.[8] Implementation of PHC at the country level, however, confronted many challenges in poor countries. The WHO is now seeking to resurrect the PHC approach with the *World Health Report 2008*, issued in October on the 30th anniversary of the Alma Ata Conference,[9] and with a renewed emphasis on the principles of universal coverage, people-centered approaches, and effective delivery of primary care.[10]

A third factor is growing recognition about the difficulties that health system weaknesses present in achieving the Millennium Development Goals (MDGs).[11] Problems in health system performance are considered major causes for the delays in achieving key targets of the health-related MDGs—those related to child mortality (MDG 4), maternal mortality (MDG 5), and the prevention of HIV/AIDS, malaria, and other diseases (MDG 6). These delays are particularly pronounced in countries in sub-Saharan Africa.

Fourth, the growing demand for aid effectiveness and donor harmonization at the country level, based on the principles of the Paris Declaration, reflects concerns about system-wide impacts of global health initiatives. The increase in resources devoted to health worldwide, however, has focused more on inputs (especially human and financial resources) rather than outputs or health impacts (such as effective coverage and improved health). Yet, there is limited evidence that previous attempts to achieve strong donor coordination (through poverty reduction strategies and sector-wide approaches) have helped improve health system performance.

Advocates of single-disease control programs are concerned that the renewed emphasis on health systems could move resources away from their programs and undermine progress achieved to date. The risk of allowing infectious diseases to increase should be carefully monitored as efforts develop to strengthen health systems. A community-based approach, with attention to collective quality of life, could help avoid undesired consequences of a focus on health systems.

Health System Strengthening

No consensus exists on the operational definition of health system strengthening. Several competing approaches are currently popular in the global health community, promoted by different agencies.[12] We briefly present several of the main approaches here.

The WHO's *World Health Report 2000* raised a broad international debate on issues related to health systems.[13] The report defines a health system as including "all the activities whose primary purpose is to promote, restore, or maintain health." The main focus of the report and the ensuing debate, however, was on how to measure different aspects of health systems rather than on how to strengthen health system performance.

The WHO presents its updated approach to health system strengthening in *Everybody's Business*. This 2007 report, however, does not provide a clear definition or boundary for a health system. Indeed, the report states, "There is no single set of best practices" for health system strengthening because "health systems are highly context-specific."[14] In addition, the report's framework is not easy to apply in practice. The book identifies six "building blocks" for a health system: service delivery, health workforce, information, medical technologies, financing, and leadership/governance. But it is not clear how they fit together, how they relate to one another, or how one builds a health system with the blocks.

The World Bank describes its approach to health system strengthening in its 2007 strategy document on "healthy development."[15] The document recognizes that the bank needs a "collaborative division of labor with global partners" (p. 18), including the WHO, UNICEF, and the United Nations Population Fund (UNFPA), which are viewed as providing technical expertise in disease control, human resource training, and service delivery. The bank considers its comparative advantages as broader systemic issues, especially health financing and health economics, as well as public-private partnerships, public sector reform and governance, intersectoral collaboration for health, and macroeconomics

and health. A major challenge for the bank is implementing its strategy at a time when the bank's own financing is becoming a smaller proportion of global health funds, when the substantive problems encompass more than the bank's areas of comparative advantage, and when the previous bank strategy of 1997 has not been effectively evaluated (p. 38).

With the growth of interest in health system strengthening, the world now confronts a proliferation of models, strategies, and approaches. The WHO and World Bank efforts represent just two approaches; other frameworks also exist. How do we evaluate these different conceptual models and select an appropriate one? Unfortunately, there is no cookie-cutter approach to health system strengthening, no single formula that can be applied to all countries. Improving health system performance is a process, and that process must be adapted to the situation of each country—its political and economic circumstances, its social values, and its national leadership.

From a policymaker's perspective, a strategic framework on health system strengthening should help in deciding what to do, how to do it, and what results to expect. In addition, the framework should relate to appropriate theories while it helps to produce practical results. The framework should also provide guidance on how to implement the ideas in real-world political conditions and how to relate the objectives to different ethical perspectives. We believe that one approach to health system strengthening proposed by Marc J. Roberts, William Hsiao, Peter Berman, and Michael R. Reich[16] takes important steps in meeting these criteria and can help sort through the diverse concepts promoted by different agencies.

Global Health Architecture and the G8

The G8's role in global health

The global health architecture is undergoing fundamental structural changes. As noted in the World Bank's strategy document, the once-dominant players are increasingly marginal and less influential. This is true for both the World Bank's prior financial dominance and the WHO's prior normative dominance. Global health policymaking has become a multi-stakeholder process but without an explicit institutional process and with competition and confusion at global and national levels. The proliferation of overlapping yet opposing frameworks for health system strengthening reflects this disorganization. We believe that

the G8 can play a major role in catalyzing efforts to reframe the global health architecture in a more coherent direction.

The rise of the G8 coincides with rapid changes in global health governance in the 21st century, especially the declining role of the WHO as the sole international health agency. In the past decade, new stakeholders have entered the decision-making arena of global health, including the Bill & Melinda Gates Foundation, the Global Fund, and GAVI. At the same time, public-private collaboration has become a maxim of health policy at both the global and country levels.

One traditional strength of the WHO has been its constitutional mandate to represent member states through the World Health Assembly. In the new era of global health, however, the WHO is limited by its legal framework in its interactions with the private sector and NGOs. Another major strength and constraint of the WHO is its nature as a technical agency that mainly offers information and technical advice but cannot substantively influence how national governments allocate financial and human resources to strengthen health systems.

Calls to reform the WHO have a long history. Each new director-general has pursued change at the organization, but implementation of new ideas remains a challenge.[17] Recent calls for the reform of the WHO reflect broader attempts to reform the UN, and these appeals have gained increasing persuasiveness and priority on the global agenda.[18] It is imperative for the WHO, as the world's principal agency for global health policymaking, to clarify and strengthen its core functions and improve its technical and organizational competencies.

Into this increasingly crowded field of global health has emerged a new entity known as the Health 8 or H8—comprised of the WHO, the World Bank, GAVI, the Global Fund, UNICEF, the UNFPA, UNAIDS, and the Gates Foundation. This meeting of global health leaders resembles the meeting of global political leaders, providing a locus for discussion with limited organizational capacity. At their inaugural meeting on July 19, 2007, the H8 leaders stated they "met informally" with the objective of "strengthening their collaboration in global health in order to achieve better health outcomes in developing countries."[19] Among the five themes discussed was "the renewed interest in health systems."

The H8 leaders agreed that health system strengthening should be judged by its ability to deliver health outcomes, and they urged the WHO and the World Bank "to fast-track the completion of the normative framework for health systems strengthening." The H8 thus creates an opportunity for enhanced

communication, collaboration, and consensus building on global health policy, including interactions with the G8.

The national leaders of the major market economies began meeting on an annual basis in 1975, creating a new generation of global institutions. The G8 has considered global health issues at every meeting since 1996, according to a systematic analysis of the G8 and global health governance.[20] The study found that the G8 has emerged as an "effective, high-performing centre of global health governance across the board." Japanese and Italian leadership have been important in pushing the G8 to address global health issues, exemplified by the 2000 Kyushu-Okinawa Summit that led to the formation of the Global Fund.

The nature of the G8 provides a highly personal, visible, and flexible mechanism for addressing global health policymaking. The once-a-year meeting of national leaders allows for focused discussions with key stakeholders from outside the G8 circle. For example, the G8 has included four core African partners at several meetings to discuss critical issues of development and health. The emergence of the G8 in global health governance reflects the need for a more flexible mechanism than the existing multilateral health institutions in order to tackle emerging global health threats that require collective action. The G8 can think and act outside of the existing global health bureaucracies and stakeholders and is thus uniquely positioned, through its power and vision, to help shift the global health agenda and priorities. Yet, at the same time, the G8 does not have its own implementation capacity and therefore must depend on existing organizations or new entities for action.

The rise of the G8 and the H8 in global health reflects a power shift in global politics. The globalization of health issues means that common agendas stretch across national boundaries, so individual states cannot focus solely on their own geopolitical issues. Nation states with the ability to deal with transnational challenges will consequently have more influence in international politics. The G8 process encourages the eight political leaders to tackle global issues and at the same time provides incentives for stakeholders outside the G8—in the private sector, NGOs, and international agencies—to find ways to influence what happens inside the G8. This power shift is restructuring the architecture of global health policymaking. The H8 members are seeking to define their own roles in the new architecture. But where this restructuring will lead remains uncertain.

The emergence of global health as foreign policy has contributed to the rising interest of the G8. In March 2007, the foreign ministers of Brazil, France, Indonesia, Norway, Senegal, South Africa, and Thailand issued the Oslo Ministerial Declaration on the "urgent need to broaden the scope of foreign

policy" to include global health. They declared, "Together, we face a number of pressing challenges that require concerted responses and collaborative efforts. We must encourage new ideas, seek and develop new partnerships and mechanisms, and create new paradigms of cooperation."[21] This initiative by foreign ministers on global health calls for new forms of global governance to address health challenges and asserts a set of common values, including the belief that "every country needs a robust and responsive health system." The UK and Japanese governments have embraced the global-health-as-foreign-policy strategy with particular enthusiasm.[22]

Global health and human security

The agenda for global health thus encompasses more than population health; it now intersects with foreign policy, economic development, and human rights and human dignity. Nations ignore these broader dimensions at their own peril. Such people-centered approaches have converged into the concept of human security over the past decade. Human security complements the traditional concept of national security and has been defined as protection of "the vital core of all human lives in ways that enhance human freedoms and human fulfillment,"[23] with particular attention to freedom from want and freedom from fear. Human security is achieved through two kinds of strategies: protection strategies that shield people from critical and pervasive threats, and empowerment strategies that enable people to develop the capacity to cope with difficult situations. This approach has particular relevance for health system strengthening because human security focuses on individuals and communities, represents a demand-driven process, and seeks to promote a comprehensive view of how to improve well-being.

Japan is one of the strongest advocates for human security. This approach provides a context for reframing Japan's postwar pacifism, which is reaching a turning point under a new generation of leaders. Human security provides a conceptual foundation for a renewed Japanese pacifism and a new form of global citizenship. For the past decade, the Japanese government has used global health as an entry point for its policy on human security and given global health high priority on its foreign policy agenda.[24] Within the human security framework, the global health agenda offers a field for developing concrete strategies that can be implemented through both bilateral and multilateral agencies and through G8 processes.[25] The dual strategies embedded in human security—protection and empowerment at the community level—are consistent with the WHO's

renewed commitment to PHC and with Japan's postwar efforts to strengthen its own national health system.

Policy Recommendations for the Toyako Follow-Up

To continue the momentum on health system strengthening created by the Toyako Summit, the Japanese government asked for policy recommendations on how to follow up on the commitments made in Toyako, encouraging the Takemi Working Group and JCIE to launch a new project to explore concrete recommendations. Since its inception, the Takemi Working Group has enjoyed the participation of leaders of diverse sectors in Japan, including the strong continuing involvement of the three relevant government ministries: foreign affairs; health, labor, and welfare; and finance. The project prepared three policy papers on themes highlighted in the Toyako Framework for Action on Global Health: health workforce, health finance, and health information. The project has been conducted outside the formal channels of government agencies as a Track 2 diplomatic effort with the informal participation of Japan's ministries of health, finance, and foreign affairs, plus representatives from H8 agencies, G8 governments, and civil society organizations. This Track 2 strategy provides flexibility for the project organizers to listen to various experts and consider ideas outside the conventional wisdom, while assuring collaboration with key stakeholders. The strategy is designed to identify innovative approaches to health system strengthening that can gain acceptance by the G8 and the relevant implementing agencies.

The chapters—on people, money, and data—address three necessary components of health system strengthening. They cover topics that are important inputs to health systems: managers and policymakers need people, money, and data to make decisions on what a health system should do. At the same time, health information is an output, providing assessments of different health system activities (how money and people are used and what they produce in terms of health outputs and health outcomes). The three components are also related to each other: money is required to hire people; those people work in the health system where they collect, analyze, and interpret health information; and the data are used by people to decide how to spend more money. The chapters' main findings and specific recommendations for G8 action outlined below.

Health workforce

Human resources for health has been a long-standing concern in health planning and management, and there are currently monumental shortages of health workers around the world. But Professor Masamine Jimba, who heads the research team on health workforce, identifies other major challenges beyond the sheer number of health workers, including inadequate payment, motivation, training, and supervision, as well as poor working environments. Professor Jimba also identifies a massively unequal distribution of health workers within and among countries and across specialties and skills. In response, his paper recommends three major actions by the G8 to address these problems:

1 Strengthen the capacity of countries to plan, implement, and evaluate health workforce programs so that they can more effectively use the existing health workforce and implement the G8 commitments
   1.1 Develop mechanisms for evaluating health workforce progress at the country level
   1.2 Identify ways to change macroeconomic policies to reduce constraints on expanding the health workforce
   1.3 Strengthen international networks of higher education institutions to provide access to health and medical education in areas with limited resources
2 Address the demand-side causes of international health worker migration
   2.1 Clean their own houses by increasing the number of health workers in their own countries using their own resources
   2.2 Support the WHO code of practice to address migration issues
   2.3 Seek practical solutions that protect both the right of individuals to seek employment through migration and the right to health for all people
3 Conduct an annual review of actions by G8 countries to improve the health workforce
   3.1 Assess what the G8 countries are doing, what has worked, and evidence to support this, using a standard set of common measures
   3.2 Use this review to evaluate how health systems are performing, to identify gaps in financing and information, to develop evidence-based best practices, and to increase knowledge on how to improve health system performance through strengthening of human resources, as well as to see how well G8 countries are carrying through on what they have pledged to do

Health financing

There are no fully accurate estimates of health financing in developing countries, but recent trends show that external and domestic sources of funding for health have been increasing. Yet, in his chapter on this topic, Dr. Ravindra P. Rannan-Eliya emphasizes that "more money has not necessarily meant better results." Some countries are able to achieve better health system performance with limited financial resources, while others that have made high investments in health have been less successful. This wide variation in country performance provides an opportunity for understanding the conditions under which some health systems work better with limited financing. There is a growing global consensus that public financing represents an important necessary condition, although the form of public financing (i.e., tax financing versus social health insurance) remains a point of debate. Better performance also depends on how the available funds are used and how health system coverage is expanded to hard-to-reach populations. Dr. Rannan-Eliya recommends three major actions by the G8 to address these challenges of financing for health systems in the developing world:

1 Complement efforts on increasing money for health with efforts to improve the value of health spending through support for better country-led health financing and systems policies.
2 Build on the existing consensus among technical experts with an explicit G8 commitment to prioritize support for country health financing policies that place public financing for health, in the form of tax financing and/or social health insurance, at the core of efforts to expand coverage for poor people and vulnerable groups in society.
3 Invest in the ability of developing country partners to make better financing policies. This will require increased investments in building national capacity for health systems policy assessment and in the mechanisms to understand and share the lessons of best practice countries.

Health information

The chapter on health information, written by Professor Kenji Shibuya, identifies two major types of challenges in this area: technical and allocative inefficiencies. In the former, he explains that appropriate data do exist but are not used by policymakers or policy analysts, either because they do not have access to the information or because they do not have the capacity to analyze and

use the data to answer questions about health system performance. Professor Shibuya describes the allocative inefficiency as uncoordinated data collection and compilation without well-defined measurement strategies. To correct these inefficiencies, he recommends three major actions by the G8:

1 Implement a G8 annual review to assess the G8's commitments to health systems and programs
   1.1 Define a standard set of metrics and measurement strategies for monitoring and evaluating aid effectiveness, health programs, and systems
   1.2 Plan and assess future health-related activities by the G8 and its partners using a common framework and metrics
2 Establish a digital commons using a network of global and regional centers of excellence to improve access to—and the quality of—datasets and analyses at the country and global levels
   2.1 Promote the principles of open access and data sharing in the public domain
   2.2 Develop a global databank for common indicators (starting with MDG targets, human resources, and resource tracking) and a data exchange and quality assurance mechanism
   2.3 Establish a Cochrane-type process for global health monitoring to generate empirical evidence for health policy
3 Pool resources for health metrics at the global and country levels to create a Global Health Metrics Challenge
   3.1 Develop capacity and create an incentive structure for countries and data producers to collect, share, analyze, and interpret better-quality data
   3.2 Make health funding contingent upon third-party evaluation that is compliant with agreed principles, including developing a standard measurement strategy, putting data in the public domain, strengthening local capacity, and making appropriate use of information technologies
   3.3 In countries with incomplete or inexistent civil registration, prioritize development of civil registration systems
   3.4 Invest in a series of nationally representative household surveys for multiple diseases and risk factors

Discussion

The three chapters on health workforce, health financing, and health information express several common themes on global health policy. While these three components (people, money, and data) do not constitute a complete model of health system performance, they do represent areas that are high on the global health agenda and are important elements of any model.

First, all three chapters stress the need for the G8 to address the quality of resource use as well as the quantity of resource provision. The authors agree on the need to make more effective use of existing resources (people, money, and data) in addition to the need for more resources from both external and domestic sources. The G8, for example, could promote efforts to identify best practices and the conditions under which existing resources are effectively used to improve health system performance.

Second, all three chapters call on the G8 to enhance country capacity and ownership for health system strengthening. The G8 can help ensure that countries have adequate human and financial resources in order to collect, analyze, and interpret data and evaluate their own health system performance. The G8 can help countries build their capacity to use their health system resources more effectively.

Third, all three chapters agree that the G8 should implement an annual review on global health commitments, with a standard set of common measures to assess how resources are being provided and used to improve health system performance. Japan started the process for an annual review of commitments at the Toyako Summit; this process should be expanded and institutionalized.

Actually strengthening health systems will require the G8 to move from summitry to accountability, and it will require collaboration with H8 organizations and national institutions in both donor and recipient countries. The G8 Summit is a thin body, effective in reviewing critical global problems and setting priorities for global policy agendas. The G8-H8 relationship is still evolving, as is the nature of decision making within the H8 itself. Both entities are informal networks rather than formal institutions. As a result, effective G8 action on health system strengthening will require creativity at the global and national levels and more interactions across levels. The G8 does not have the capacity to become a global health apex institution, but the G8's special leverage can help move health system strengthening forward in new ways.

The specific recommendations, therefore, adopt different strategies on health system strengthening. Some seek to clarify and strengthen existing institutions and frameworks. Others seek to create new entities but without proposing a new

global funding mechanism. We have sought innovative solutions to problems in health systems and attempted to articulate ideas not stated elsewhere, including ideas that may be unpopular or uncomfortable for existing organizations. We seek to provoke creative thinking and action on health system strengthening. Yet we also seek to avoid unnecessary politicization of the global health community, focusing on substantive functions rather than political questions. Another overarching objective of this report is to contribute to strengthening the capacity and clarifying the role of the WHO in the global health architecture.

These activities to follow up on the Toyako Summit declaration mark a concerted effort by Japan and its partners to enhance their substantive contributions to global health policymaking, rather than just providing financial donations. The nature of global problems in many spheres now outruns the capacity of global governance institutions. This institutional gap represents both an opportunity and an obligation for the G8 countries as a new leverage point for global health policymaking. The world has witnessed a remarkable growth in global flows of health workers, health finances, and health data. In our increasingly globalized world of health, the G8 Summit provides a setting for personal engagement by national leaders who can shape policy responses to meet critical problems. This project has identified concrete actions, in the context of the revived approaches of human security and PHC, to be pursued by the G8 nations. These actions will necessarily require collaboration with the H8 organizations, other sympathetic developed and middle-income countries, and recipient countries. We believe that the government of Japan, for its part, should integrate global health more fully into its bilateral and multilateral diplomacy and that it can enhance its diplomacy by working more closely with international civil society networks and encouraging their further development.

The global financial crisis makes it all the more important for the G8 to address health system strengthening and deliver on existing commitments to global health. Fears are rising about potential cutbacks from rich countries in official development assistance as well as private giving to NGOs.[26] But as Prime Minister Gordon Brown of the United Kingdom stated in September 2008, the international community should do more, not less, to help the world's poorest people in this time of economic crisis.[27] The G8 can play a catalytic role in assuring that pledged funds are delivered in ways that create tangible benefits for the world's poorest people. We recommend that the G8 also consider promoting the development of innovative financing mechanisms for health system strengthening. The G8 can also work to protect government budgets for social welfare in developing countries

from being squeezed by the financial crisis, and to avoid a repetition of the cuts that occurred under the structural adjustments and economic turmoil of the 1980s and 1990s.

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Opportunities for Overcoming the Health Workforce Crisis

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Why Now?

The health workforce—the people who actually deliver clinical and public health services—is a fundamental element of any functioning health system. All countries have to deal with the challenges of ensuring an appropriate supply and distribution of health workers, maintaining adequate levels of training, retaining health professionals, and managing their motivation and performance. However, policymakers in low- and middle-income countries face particular challenges, and there is a dearth of evidence to help guide and support their decisions.[1] For decades, human resources for health (HRH) was neglected by donor agencies and global health initiatives in favor of easier, more targeted areas, such as provision of vaccines and other medical products. Increasing awareness of these many challenges, such as migration, HIV/AIDS, and constraints on scaling up interventions, has underlined the importance of investing in health workforces and helped to move HRH onto the global agenda.

Two major documents successfully defined and helped elevate the role of the health workforce on the global health agenda. First, in 2004, the Joint Learning

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Initiative (JLI) published a monumental work, *Human Resources for Health: Overcoming the Crisis*. The JLI identified three major forces assailing the health workforce: the devastation caused by HIV/AIDS, the acceleration of labor migration, and the legacy of chronic underinvestment in human resources.[2] Second, the World Health Organization (WHO) published its 2006 *World Health Report*, in which it estimates that more than 4 million health workers will be needed to meet the shortfall, including 2.4 million physicians, nurses, and midwives. It also identifies 57 countries as having a critical shortage, and of these, 36 are in sub-Saharan Africa. By calling it a "crisis," the JLI and 2006 *World Health Report* were successful in gaining more attention for the health workforce at the global level. These developments helped to bring about the establishment of the Global Health Workforce Alliance (GHWA) in May 2006, which is directed by the belief that, as the late WHO Director-General J. W. Lee stated, "every person, in every village, everywhere should have access to a skilled, motivated and supported health worker."[3]

However, labeling something a crisis can only accomplish so much. What has done more to put the health workforce on the global agenda is clear evidence that donors are having trouble achieving their program objectives without increasing the number of qualified health workers. This is especially true of HIV/AIDS projects. Not only the disease itself but also its treatment can have detrimental impacts on HRH, where vertical HIV/AIDS programs drain human resources from the rest of the health system, presenting problems both for the existing health system and for scaling up of new initiatives.[4] Additionally, focusing on the numbers alone neglects the more complex issues of distribution of workers within countries, performance of workers, and the poor working conditions that can impact that performance.[5]

To cope with the health workforce crisis, the First Global Forum on Human Resources for Health issued the Kampala Declaration and Agenda for Global Action in 2008, which identified 12 immediate and urgent actions to be taken.[6] Four months later, the world leaders taking part in the Toyako G8 Summit voiced their support for the declaration, making more specific financial and technical commitments for the health workforce than they did for any of the other five building blocks of the WHO health system framework: health services; health information; medical products, vaccines, and technologies; health financing; and leadership and governance.

In the Toyako Framework for Action on Global Health, the following recommendations were proposed as actions to be taken for the health workforce: act as a whole to narrow the gap between existing workforces and what is needed; increase the use of skilled health workers; encourage treat, train, retain

strategies and task shifting; encourage the WHO's work on developing the code of practice; and encourage further development of the GHWA.[7]

As the 2006 *World Health Report* states, "the moment is ripe for political support as problem awareness is expanding, effective solutions are emerging, and various countries are already pioneering interventions."[8] The health workforce is now receiving unprecedented inputs such as funding, technical assistance, and new policy initiatives from various stakeholders. The challenge is making the best use of the inputs to improve outputs and outcomes. Whether this momentum lasts depends on what actions are taken to overcome this challenge.

In this report, we seek to identify the most important and immediate recommendations and actions to be taken by the G8 countries to strengthen the ability of the health workforce to improve the performance of the health system and health outcomes. In order to do this, we first analyze the role of health workforces in strengthening health systems and improving health outcomes. Then we explore the major challenges and opportunities that can be leveraged to strengthen health workforces. Finally, we provide policy recommendations as to what the G8 should do to improve HRH.

Health Workforce and Health Systems: Major Issues

Of the six health system building blocks in the WHO health system framework, there are three input-related blocks: medical products, vaccines, and technologies; health financing; and the health workforce. Of these three, the health workforce is one of the key inputs to drive the health system as a whole; however, we have little knowledge about how health workforce improvement can result in an improved health system. The relationship between the health workforce and health outcomes is just as complex. In this section, we analyze these relations so that we can make better recommendations for action with the objective of creating better outcomes through the use of existing inputs and future increased inputs to the health workforce.

Human resources and health systems

The WHO has emphasized the need to have sufficient numbers of health workers to achieve the basic objectives of the Millennium Development Goals (MDGs). It has suggested that a minimum of 2.3 doctors, nurses, and midwives

per 1,000 people should be a basic numerical target.[9] This target may be useful for advocating greater attention to human resource issues in low-density countries; however, in many countries it is not a realizable objective in the short term given the finances available in the national budgets. For example, in 2006 Ondo State, Nigeria, had 0.71 health workers per 1,000 people with annual wage implications of US$14.3 million out of a total health budget of US$22.6 million.[10] If Ondo State were to reach the WHO's 2.3 target, the annual wage implications would be a staggering US$50.1 million.[11] The target also does not address the issue of developing a workforce with the appropriate mix of skills, especially the use of paraprofessionals and nurses. In addition, it does not address the problem in several countries (for example, Egypt, some states in India, and many former Soviet bloc countries) of over-supply of doctors.[12] It also ignores the other system factors that are necessary for health workforces to be effective.

Human resources are only effective if the system in which they function is able to do the following:

- educate sufficient numbers of adequately trained and appropriate health workers;
- provide sufficient financing for their salaries, supplies, and transportation;
- effectively motivate them and manage their administrative, information, logistics, and supply needs;
- establish appropriate physical infrastructure and delivery models; and
- provide safe working conditions.[13]

In other words, human resource improvements require more than just appropriate numbers of the right types of health workers; improvements are required in how the health system creates and supports health workers and in the political context that is needed to achieve and implement reforms so that they can achieve improvements in health objectives.[14]

In many countries, interventions focus on one aspect of human resources or another, with some degree of success; however, very few take the comprehensive, integrated approach seen in Malawi's Emergency Human Resources Program (EHRP), which can multiply single-issue benefits.[15] An effort to mitigate one of the severest human resources shortages in sub-Saharan Africa, the six-year program focuses on retention, deployment, recruitment, training, and tutor incentives for 11 priority cadres of health workers. The EHRP includes attracting unemployed or retired staff back into service, using expatriate staff to fill gaps temporarily, expanding domestic training capacity, and initiating salary top-ups and in-service incentives (particularly for rural services).[16] The plan

includes strengthening information and monitoring systems, and preliminary results demonstrate that the program is having a positive impact. There is some evidence to suggest a reduction in nurse migration and an increase in medical school applications, potentially due to improved future salaries.[17] This can be seen as a groundbreaking model to link the health workforce to health system strengthening as a whole. The government of Mozambique is similarly trying to undertake a comprehensive approach with its Health Workforce Development Plan for 2008–2015; however, it still needs partners to support and collaborate with the project for it to be successfully implemented.

To improve health workforce management at the country level, the WHO has recently published a guide to strategic planning for human resources. This tool focuses on the health system approach, suggesting indicators for assessing the financing, education, and management components of a health system that are needed to provide for an effective health workforce.[18] It also offers political strategies for gaining sufficient support for reforms designed to improve health workforce effectiveness. In particular, it recommends a careful analysis of the levels of financing available within the country resource envelope, appropriate levels of salary relative to other labor markets, an education system with the ability to provide sufficient qualified graduates in different categories, appropriate management, and system supports for health management information systems and logistics. To provide safe working conditions, the Joint Programme on Workplace Violence in the Health Sector—developed by the International Labour Organization (ILO), the International Council of Nurses (ICN), the WHO, and Population Services International—and the ICN itself have also issued practical guidelines.[19] Such efforts are critical to retaining health workers, particularly in developing countries.

Health workforce and outcomes

As the Toyako Framework for Action on Global Health acknowledges, there is a need for greater evidence to support recommended changes in health systems and the numbers and types of health workers who are needed to achieve improvements in health outcomes. Recent studies suggest an association between higher densities of health workers and both lower maternal and infant mortality rates and higher immunization rates.[20] These aggregate studies are not sufficient for causal analysis and do not account for different health systems and different skill mixes. These cross-country studies also do not take into consideration the distribution of health workers within a country and therefore do not account for

disparities in types of existing health workers, particularly between urban and rural areas. Indicative of the problem is the relative success of some countries with low densities of health workers in successfully moving forward toward achieving the MDGs. For example, data for the 2008 countdown cycle showed that 16 of 68 priority countries (24 percent) were on track to meet MDG 4.[21] Out of those 16 countries, 8 (Bangladesh, Eritrea, Haiti, Indonesia, Lao PDR, Morocco, Nepal, and Peru) are identified as experiencing health workforce crises in the 2006 *World Health Report*. This suggests that a health workforce crisis does not always create a crisis for achievement of the MDG 4 targets. Another example serves to illustrate that it takes more than numbers to improve health outcomes. Nigeria has 1.45 health workers per 1,000 people and Ghana has 0.93, two of the highest numbers in West Africa; however, while Ghana has some of the region's best health indicators, with a maternal mortality ratio (MMR) of 590 and under-five mortality rate (U5MR) of 100, Nigeria's are lagging with an MMR of 1,100 and U5MR of 183.[22]

Clearly, additional studies are necessary to understand the relationship between health outcomes on the one hand and health workforces and health system characteristics on the other. However, it is likely that in countries with low health status, low density of health workers, inadequate supply of low-level health workers, and low levels of financing, we need initiatives to increase an appropriately skilled health workforce and improve the financing, management, and education systems. By understanding these relationships, we can take better action to use health workforce inputs to gain better health outcomes.

Challenges for Health Workforces

While the WHO and the JLI have advocated increasing the numbers of doctors, nurses, and midwives, the challenge involves more than just increasing the number of health workers. Only increasing the number of health workers will not always improve health system performance or health outcomes, and there are broader systemic challenges to improving both the quantity and quality of HRH.

Inappropriate quantity and quality of the existing health workforce

Overcoming shortages: The target of 2.3 health workers for every 1,000 people is unrealistic in many countries while other countries face high

unemployment among certain cadres within the healthcare sector. Nonetheless, there is still clearly a need for increases in specific types of health workers in many low-income countries. Shortages can be caused by a variety of factors, including insufficient pools of high school graduates, lack of medical schools or other training facilities, HIV/AIDS, labor markets, and migration.

The first challenge is in the education system. Some countries do not have a sufficiently large pool of high school graduates to provide applicants to nursing and medical schools, and in many countries there is a deficiency in educational infrastructure to train health workers of the appropriate type and with adequate skills.[23] This is an area where the link between the health and education sectors must be strengthened.

Second, HIV/AIDS presents HRH challenges on multiple levels. HIV treatment increases workloads for health workers, and of the workers themselves are impacted by the disease, which increases sick leave and decreases their numbers.[24] The lack of qualified health workers is increasingly being recognized as a major constraint in scaling up of antiretroviral therapy in many low-income countries with high burdens of HIV/AIDS.[25] In addition, there is growing fear that the demand for increases in health workers for HIV/AIDS programs is shifting staff from other priority programs, suggesting a need for a comprehensive approach to addressing human resource needs.

Third, the market for human resources is often influenced by a range of political, economic, and social factors. Supply and demand of HRH is shaped not just by health needs and the number of workers trained but also by current wages and working conditions relative to other occupations. Shortages can result when governments lack the budgetary resources to hire workers at a competitive salary and provide them with the supplies and working conditions necessary for them to perform their jobs. To ensure that health workers actually work in the health field may require an increase in incentives to retain them and to improve equity of distribution, especially in rural areas.[26]

Finally, global market demand for HRH can lead to migration from countries that already have severe worker shortages to wealthier countries with higher wages and better working conditions. This issue of migration is discussed below, as it is one of major focuses of this chapter.

Improving skills of appropriate health workers: In addition to a deficiency in the number of health workers, the quality of key service providers is still lacking, especially in areas needed to address the MDGs. Continuing professional education is crucial to providing quality care, but recent studies have indicated that health workers in developing countries may

be particularly vulnerable to unequal distribution of continuing professional education opportunities due to small budgets, rural location, and biased selection processes. This unequal distribution can contribute to unequal quality of care and lower morale.[27]

In order to achieve health outcomes, such as the MDGs—particularly MDG 5—health workers require additional skills and supplies that are often not available, especially in rural areas. Higher-level health professionals, such as doctors, take longer and are more costly to train, and many resist rural postings. Lack of emergency obstetric care and blood banks in remote areas contributes to high levels of maternal and infant mortality. General physicians and paraprofessionals often do not have the obstetric skills necessary and, therefore, apparent access to services is not effective. One solution for this has been to train health workers who would otherwise be considered auxiliary to perform other tasks, from primary care to major surgery.

Task shifting from doctors, nurses, and pharmacists to assistants has met with some resistance from professional groups and with concerns about quality and safety.[28] However, several trials with community health workers have shown substantial reductions in child mortality.[29] In a more extreme example, clinical officers in Malawi and técnicos de cirurgia in Mozambique are able to perform caesarian sections. Studies in these two cases found no substantial difference in outcome between surgeries performed by doctors and those carried out by surgically trained non-doctors.[30] This kind of task shifting may be a short-term solution, but what is less clear is if it will prove to be an effective long-term solution. It may be necessary to reevaluate the skills and tasks assigned for each level of health worker to best fit the needs of each country and context.

More examples of effective use of community health workers are given in the 2008 *World Health Report*, in which the primary healthcare approach is reappraised. Examples include Malaysia's scaling up of 11 priority cadres of workers, Ethiopia's training of 30,000 health extension workers (HEW), Zambia's incentives to health workers to serve in rural areas, and the 80,000 Lady Health Workers in Pakistan. Of them, Ethiopia's innovative actions are unique in transferring responsibilities to community health workers. The Ministry of Health in Ethiopia launched the Health Extension Program (HEP) in 2003. The HEP is an innovative community-based program that aims to make essential health services available at the grassroots level. Its target is to train 30,000 HEW by 2009. The HEP is designed to provide services at the community level covering 16 health extension packages categorized under three major areas: disease prevention and control (i.e., HIV/AIDS, sexually transmitted infections, tuberculosis, and malaria); family health services; and

hygiene and environmental sanitation.[31] As of January 2008, a total of 24,000 HEW had been trained and deployed to communities.[32]

Using an example from Uganda, where HIV/AIDS requires a large amount of human resources, community health workers have taken on the responsibility of nurses in delivering HIV/AIDS services, while nurses have taken on that of doctors. This is said to have relieved the country's burden due to the health worker shortage to some extent.[33] In Tanzania, the lowest level skilled workers have taken on roles in achieving the MDGs. A case study of expanding priority interventions in Tanzania claims that a considerable number of tasks could be delivered by occupational categories with lower skill levels or other individuals at the community level.[34] For instance, drugstore staff might be authorized to dispense drugs for common conditions such as malaria.[35]

Overcoming macroeconomic policy constraints

Many of the above challenges are the result of the broader need for strategic planning for human resources and increased health system strengthening. Low salary levels, as well as inadequate management skills and key management systems (e.g., logistics, management information systems), are common systemic issues that need strengthening. As described above, low salaries can make it a challenge to hire and retain qualified health workers. In some countries, government spending on health workers' pay has been constrained by macroeconomic factors, such as the recruitment freezes and limits on the public sector wage bill that were often part of structural adjustment programs imposed as a condition of loans from the World Bank. In many countries, the macroeconomic policies do not allow governments to pay the salary levels that would retain health workers.[36] The Kampala Declaration and Agenda for Global Action takes up this issue and suggests that financial institutions take actions such as "country-specific analysis of macroeconomic conditions that impact wage ceilings, health spending, and constrain civil service hiring arrangements necessary for meeting established priority needs in the health sector."[37] It is important that dialogue between governments and institutions such as the World Bank and the International Monetary Fund (IMF) take into consideration the need to scale up the health workforce while ensuring that prospects for overall economic growth and long-term fiscal sustainability are maintained. The main problem, at this stage, is the total lack of transparency. The IMF and the World Bank talk about "fiscal space constraints," but nobody knows how they are estimated or applied.

Improving country capacity

As the JLI report states, country-led strategies constitute the primary engine for driving workforce development.[38] Country strategies have five key dimensions: 1) engaging leaders and stakeholders, 2) planning human investments, 3) managing for performance, 4) developing enabling policies, and 5) learning for improvement. Developing countries, alone or in collaboration, must strengthen their capacity for strategic planning, management, and policy development, but most low-density-high-mortality countries lack the capacity to do it alone.

As countries' roles are so crucial, the Kampala Declaration identified seven actions for them to take. However, the actions suggested in the declaration are for what each country *should* do, which is not the same as what each country *can* do. In most low-density-high-mortality countries, lack of capacity to carry out these seven actions will mean that little progress will take place. Each country should be better able to cary out these actions if they are supported by local or international consultants.

For example, in one low-income country in Southeast Asia, the Department of Personnel and Organization in the Ministry of Health made a draft strategic framework and implementation plan for the development of HRH in October 2007, assisted by the local WHO office. However, one year later, the draft remained a draft. The Japan International Cooperation Agency has tried to launch a skilled birth attendant program in the country, but because the implementation plan has not been finalized, the program is stuck in the planning stage. This case shows that, due to a lack of capacity in making decisions and in implementation, a "strategic framework and implementation plan" made little progress for more than a year. The same may happen in many low-income-high-mortality countries in Africa as well.

This example also suggests that only making a declaration or giving recommendations is not enough. There needs to be much more attention given to building capacity and converting good program design or good planning into actual programs. Even sending short-term experts in health systems may have limited utility. What is needed is a facilitator to move the actions forward for a sufficient period of time. This facilitation work is not the role of the G8. However, the G8 can contribute by proposing the formation of a framework to make it happen. As we saw in the Kampala Declaration, it is easy to understand what each country *should* do, but the understanding of what each country *can* do is more difficult. Each action needs midwifery support. Each country's ability to undertake these actions will emerge step by step as a

result of supporting efforts by locally available consultants, whether they are local or international.

To strengthen country capacity for health workforce management, the ILO's "social dialogue" approach may be useful. This approach includes negotiation and consultation, starting with the exchange of information between and among representatives of governments, employers, and workers on issues of common interest relating to economic and social policy.[39] This is one of the existing midwifery methods that facilitators may consider adopting, as its role is now widely recognized in advancing and sustaining reform processes in many areas of the health sector, thus improving healthcare and mitigating any negative impact on public health. An example of its implementation can be seen in Ghana, where social dialogue was initiated in 2002. For instance, to address retention and brain drain issues in the country, representatives of the government, employers, regulatory bodies, the private sector, training institutes, hospitals, and labor groups were brought together. The social dialogue involved bargaining and negotiations for incentives to retain healthcare workers, such as offering better working conditions and creating a committee for distribution of cars. As a result, tangible incentives were offered, including allowances for additional duty hours and cars for health workers.[40]

Tackling migration of human resources

Health workforce issues should be looked at not only within a single country's health system but also through the broader global lens of the international labor market. In an ideal world, the level of HRH would be determined by what is needed to maintain or improve the health status of the population. In reality, the market for human resources is often influenced by a range of political, economic, and social factors. Supply and demand of HRH is shaped not just by health needs and the number of workers trained but also by current wages and working conditions relative to other occupations.[41] A major concern in African and Asian countries is the migration of health workers to higher wage countries. Migration produces significant strains on the health system of many countries, often by taking away the more skilled workers in any category, producing shortages in specific categories and specialties and requiring increased production of health workers.[42] There are financial strains as well, as countries invest in training new health workers only to have these workers migrate. It has been estimated that Ghana alone has lost at least £35 million of

its training investment, while the UK has saved £65 million in training since 1998 by recruiting from Ghana.[43]

Health worker mobility is influenced by a range of "push" and "pull" factors. Deficiencies in the human resources components of a health system, such as training, appropriate staffing, competitive salaries, effective management, and safe working conditions, all serve to push health workers toward migration. Pulling workers toward the destination countries are opportunities for professional development, better wages, improved working conditions, and higher standards of living.[44] Ultimately, migration is driven by a shortage of workers in middle-income and wealthy countries and is likely to continue until destination countries address their own underlying causes of health worker shortages. Some of these causes include aging populations, feminization of the workforce, caps on enrollment in training programs (physicians), and periods of pay depression leading to a decline in enrollment in training programs (nurses).[45] While in the UK efforts to expand medical school output and change immigration policy have resulted in a surplus of applicants over available post-graduate training opportunities, in the United States inaccurate predictions of physician surplus have led to policies that will result in even greater shortages.[46] Both developed and developing countries need to establish policies to manage migration by improving data collection to facilitate good workforce planning, providing financial and non-financial incentives to encourage worker retention, and making agreements between countries to encourage professional development and exchange while limiting the possible detrimental effects of losing workers.[47] These efforts should be made to "anchor" health workers to resist the push and pull factors, particularly in low-income countries.

There is some evidence that migration may have a positive economic effect by providing remittances back to the supply countries.[48] Recent studies assessing the impacts of migration on availability of health workers and health status indicators have not found a negative association, suggesting that there is insufficient understanding of the impact of human resources supply on health systems and health outcomes.[49] This positive aspect of migration makes the migration issue more complex and urges us to deal with the health workforce issue not only as part of the health system but also as part of the lives of people in the low- and middle-income countries.

However, while there are significant gaps in knowledge about the causes and effects of migration, health system reforms designed to increase retention and reduce incentives to migrate—especially of the more skilled workers—should be promoted.

Facilitating donor coordination

Lack of coordination among donors and "bandwagoning" of donors all ganging up on one problem presents a more complex challenge to HRH. In 2008, the Global Economic Governance Program at Oxford University brought together a group of current and former health ministers and senior health officials from developing countries to discuss gaps and challenges they face in dealing with current global health financing and governance arrangements. According to their report, "a constant deluge of new initiatives, focusing on specific diseases or issues, makes it extremely difficult for governments to develop and implement sound national health plans for their countries."[50] In other words, donors frequently shift their attention from one "fashion" to the next without regard to continuity or sustainability. The report also detailed widespread views that the inclination of donors to repeatedly create new initiatives, such as the parallel priorities and delivery of care by donors, weakens national strategies.[51] This difficulty was exacerbated by the absence of transparency among donors and restricted awareness by health ministries about where donors were directing funds. As one minister said about donors, "they like to monitor activities, but they do not like to be monitored and evaluated."[52]

Sridhar and Batniji argue that "the global health community should now move toward incorporating the concept of ownership into health assistance and realizing the principles of the Paris Declaration. Without systematic attention to the articulated needs of developing countries through consultation and real partnership, donors for global health will not achieve informed and inclusive decision making."[53] It is true that such incorporation of country leadership is inevitable, but not all countries have the capacity to perform the task.

The G8 has claimed that "acting as a whole" is important. Acting as a whole means acting together between donor agencies and recipient countries, but it also means the UN agencies, NGOs, and other civil society organizations acting together. However, in this context, it is crucial that the G8 countries first act as a whole. In a sense, this has been achieved by their funding for UN agencies; the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund); and other global health initiatives. In addition to the WHO and other UN agencies, each bilateral agency has a project office in most countries. Documents show that it is only the UK and the United States that are currently working together to achieve a common goal of health workforce strengthening. The UK and the United States are working together to strengthen the health workforce in Ethiopia, Kenya, Mozambique, and Zambia, but they are not coordinating with other countries in the same way. Bilateral and multilateral support do not

orchestrate common action even if they might have a common goal. Although each country has committed to overcoming the health workforce crisis together, no strong mechanism exists to allow all of them to work together at both the global and country level. Changes are needed to increase complementarity, avoid duplicated efforts, and ensure communications and transparency among donor agencies.

Opportunities for Improving the Health Workforce

Although there is not yet a cooperative force that works together toward a certain goal, and each country has its own agenda, there are currently many resources that can be utilized for health workforce strengthening. These resources include recommendations and guidelines from different health organizations; country commitments, particularly those from G8 countries; several global health initiatives; the GHWA; and the human security approach. This section intends to provide an overview of these resources and their overlapping, yet independent, inputs that can be synthesized into a valuable driving force to propel us toward better solutions to the current health workforce crisis.

Recommendations and guidelines (see Annex 3)

Several organizations have published documents and codes that provide guidelines and recommendations targeting different topics and challenges for the health workforce crisis. In addressing potential negative impacts of health worker migration from developing countries to developed countries with higher salaries, the WHO is in the process of publishing a *Code of Practice on International Recruitment of Health Personnel*. The first draft was reviewed throughout September 2008. It provides ethical guidelines and principles for international recruitment by developed countries, while also acknowledging the basic rights of health workers. The code is said to be the first of its kind on a global scale for migration. Although it is not legally binding, the recommendations in the code can serve as powerful suggested "rules of the game" for countries' policy development on international recruitment of health workers.

The WHO published the report *Task Shifting—Global Recommendations and Guidelines* to propose an option for relieving the shortage of health professionals

in regions that have low health professional densities and high mortality rates by using trained paraprofessionals. It is an alternative consideration for some applicable countries that do not have sufficient human resource capacity yet wish to seek short-term relief for their health workforce crisis. Additionally, the GHWA and the WHO published *Scaling Up, Saving Lives* to address the shortage of health workers by drawing up proposals for scaling up education and training of health workers. Finally, the Kampala Declaration and Agenda for Global Action called on governments to commit to its proposed strategies to work as a whole in solving the health workforce crisis.

It is impossible for governments, donors, and facilitators to act as a whole without a set of "common denominators." These guidelines and policies from authoritative organizations, such as the WHO, provide an opportunity to improve policies for strengthening health systems, particularly human resources.

G8 political commitments (see Annex 1)

During the Fourth Tokyo International Conference on African Development in May 2008 and the Toyako G8 Summit in July 2008, Japan committed to helping increase and enhance the quality and quantity of HRH for 26 countries in Africa in order to increase health workforce coverage and fulfill the pledge of training 100,000 health workers. Later in July 2008, the United States added a human resources component to the reauthorization of the President's Emergency Plan for AIDS Relief (PEPFAR II), committing to a target of training and retention of at least 140,000 healthcare professionals and paraprofessionals. In September 2008, during the UN High Level Meeting on MDGs, the prime minister of the UK pledged to spend an estimated £450 million over the next three years to support national health plans for eight International Health Partnership countries, which would include the increased training of health workers. Although these commitments do not fill the gap in health workforce needs at the global level, they offer great opportunities to show how increasing inputs can produce output and outcomes. Success in these efforts could be leveraged to trigger more inputs in the coming years.

Global health initiatives

Global health initiatives such as the Global Fund, PEPFAR, and the Clinton Foundation provide assessment, financial, and technical assistance to tackle

various health challenges in developing countries. Although most of the funds are used to control specific diseases such as HIV/AIDS, malaria, and tuberculosis, the funds have also begun to be used for strengthening health systems. The global initiatives may have their own targets, but they all have a common understanding of the importance of strengthening health systems with respect to HRH. The detailed actions and commitments from these organizations are outlined in Annex 2.

In addition to financial assistance, by expanding the health workforce, these global initiatives are helping target countries build their capacity to strengthen health systems as one of the side effects of their activities. For example, the Clinton Foundation, whose objectives vary from fighting HIV/AIDS to supporting HRH programs, focused in its annual meeting in September 2008 on efforts to train and manage the largest expansion of health workers in history to improve global health. In addition, PEPFAR committed to funding and training a considerable number of healthcare professionals and paraprofessionals in 15 developing countries as part of its HIV/AIDS initiative. Furthermore, the Clinton Foundation and the US Agency for International Development (USAID) even provide all-around assistance in some areas that include not only financial and technical assistance but also assessments and analytical support.

Global Health Workforce Alliance

G8 countries themselves can act as a whole much better if an innovative mechanism is created. The GHWA has the potential to take on such a task at the global level, but it needs more powerful mechanisms to work at the country level. At the global level, all of the G8 countries except Japan support the GHWA, although Japan is also becoming a member. The GHWA operates in two strategic directions: accelerating action in individual countries and addressing global constraints that impede country-level action. In its two-year lifespan, the GHWA has developed programs and guidelines that enable countries to plan and manage health workforce issues. Task forces have been set up to advise on advocacy, workforce education, training, management, migration and retention of staff, universal access to HIV prevention and treatment, and the role of the private sector.[54] Although the GHWA is trying to accelerate actions at the country level, it may face implementation difficulties as it does not have country offices. The WHO's country offices might support its work, but health workforce or health systems experts are not always available in all

of the WHO offices. The opportunities that the GHWA can offer should be used more practically.

Taking a human security approach to overcoming the health system crisis

The health workforce crisis is not only a crisis of health workers but also of health systems, particularly among low-density-high-mortality countries. In these countries, more than one building block is not functioning appropriately, and these blocks are synergistically worsening the health system as a whole. As a result, most of these countries have shown little progress in achieving the health-related MDGs.

According to data compiled by the MDG monitor, 52 low- and middle-income countries are off track on MDGs 4 and 5. Most of these countries are low-density-high-mortality countries, which have shown little improvement in health outcomes over the years. Under such conditions, just increasing the density of health workers will improve neither health system performance nor health outcomes. We may need a health system repair package program, similar to a comprehensive humanitarian support package, that includes a basic package of systems interventions. Malawi's EHRP is one such example.[55] The Capacity Project by USAID is also similar to this approach, and it may be a better option in some countries. Another potential strategy is what has come to be known as the human security approach.

Over the past 15 years, the concept of security has moved beyond a focus solely on the security of nations to include a focus on the security of individuals and communities. To support them, the human security approach covers economic, food, health, environmental, personal, community, and political security. The human security approach has the potential to contribute to improved health for several reasons. First, as a human-centered approach, human security focuses on the actual needs of a community, as identified by the community. Second, human security highlights people's vulnerability and aims to help them to build resilience to current and future threats and to help them to create an environment in which they can protect their own and their family's health even in the face of other challenges. Third, human security aims to strengthen the interface between protection and empowerment. In the context of public health, a protection approach aims to strengthen institutions in a society to prevent, monitor, and anticipate health threats. On the other hand, an empowerment approach aims to enhance the capacity of individuals and communities to assume responsibility for their own health. Human security also looks at the

interface between these two approaches and encourages those with political and economic power to create an enabling environment for individuals and communities to have more control over their own health.[56]

The last aspect of the human security approach is similar to one of primary healthcare reform, namely "public policy reforms to promote and protect the health of communities."[57] The other three sets of primary healthcare reforms—"universal coverage reforms to improve health equity,""service delivery reforms to make health systems people-centered," and "leadership reforms to make health authorities more reliable"—are also closely related to the human security approach, as they all put focus on individuals and communities.

Although the momentum of global health is still strong, such momentum has not sufficiently benefited people living in most low-density-high-mortality countries. Now is the time to achieve a breakthrough for these countries. The human security approach has the potential to overcome this challenge.

Policy recommendations

To take advantage of the opportunities, the G8 should take the following actions:

1) Strengthen the capacity of countries to plan, implement, and evaluate health workforce programs so that they can more effectively use the existing health workforce and G8 commitments
   a) Develop evaluation mechanisms for health workforce progress at the country level
   b) Identify ways to change macroeconomic policies to reduce constraints on expanding the health workforce
   c) Strengthen international networks of higher education institutions to provide access to health and medical education in areas with limited resources
2) Address the demand-side causes of international health worker migration
   a) Clean their own houses and increase the number of health workers in their own countries using their own resources
   b) Support the WHO code of practice to address migration issues
   c) Seek practical solutions that protect both the right of individuals to seek employment through migration and the right to health for all people

3) Conduct an annual review of actions by G8 countries to improve the health workforce
   a) Assess what the G8 countries are doing, what has worked, and evidence to support this, using a standard set of common measures
   b) Use this review to evaluate how health systems are performing, identify gaps in financing and information, develop evidence-based best practices, and increase knowledge on how to improve health system performance through strengthening of human resources, as well as on how well G8 countries are following through on what they have pledged to do

Annex 1: G8 Commitments

Country	Target	Type of Assistance	Details	Other health system support
Japan	26 African countries	Training of 100,000 health workers	• Supports increasing/enhancing the quality and quantity of HRH	
Italy	African countries	Human resource development and financial assistance	• Supports health system and human resource development in collaboration with NGOs • Major investments often in the form of sector budget support in 6 African countries	
Canada	Mozambique, Mali, Tanzania, Zambia, Nigeria, Ethiopia, Malawi, Niger, and Ghana	Financial assistance	• Supports the implementation of national health sector strategic plans, which enables it to recruit, train, and retain additional health workers at all levels of their health systems and to expand coverage of front-line health services for their populations	
France	20 African and 3 Asian countries	Human capacity development and financial support	• Trains people in developing countries in health • Makes annual contribution of €300 million to the Global Fund (See Global Fund in Annex 2)	
US	Ethiopia, Kenya, Mozambique, and Zambia	Assessment	• Identifies best way to maximize support to strengthen human resources and health systems	USAID works with governments to expand the reach and improve the quality of care of community-based health insurance and supports development of pharmaceutical management systems in more than 20 countries

UK	Ethiopia, Kenya, Mozambique, and Zambia	Financial assistance	• Plans to spend at least US$420 million on health, including health workforce, over the next three years	
Russia	4 African countries	Training and education	• Trains and provides education to support strategies to control malaria and a framework for a debt-relief initiative	
Germany	7 African countries	Human capacity development	• Health worker–related programs: assists with reintegration upon return to home country after training in Germany	Spends €500 million annually to fight HIV, malaria, and tuberculosis and to strengthen health systems

Reference:

G8 Health Experts Group, *Toyako Framework for Action on Global Health—Report of the G8 Health Experts Group*, http://www.g8summit.go.jp/doc/pdf/0708_09_en.pdf.

Annex 2: Existing Health Workforce Strengthening Resources from Global Health Initiative

Organization	Target	Type of Assistance	Details	Other
Global Fund	Fight HIV/AIDS, tuberculosis, and malaria	Financial assistance: international health financing	• Committed US$11.3 billion in 126 countries to date, 23 percent for human resources and 9 percent on infrastructure and equipment	57 percent of the approved funding was contributed to Africa
World Bank	Developing countries	Financial and technical assistance	• Provides low-interest loans, interest-free credit, and grants • Invests in education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management in developing countries	
PEPFAR	15 countries: Botswana, Ethiopia, Haiti, Mozambique, Nigeria, South Africa, Uganda, Zambia, Côte d'Ivoire, Guyana, Kenya, Namibia, Rwanda, Tanzania, and Vietnam	Financial assistance	• Estimate investment of US$309 million for training health workers in 2008 • Plans to support 2.7 million trainings to target training and retaining of 140,000	Heaviest focus is on HIV/AIDS-related actions; however the sideways approaches also benefit health workforce strengthening
Clinton Foundation, Clinton Global Initiatives (CGI)	In partnership with 10 African countries for HRH programs	Health system assessments and financial assistance through fund raising	• Interventions include training, clinical mentoring, recruiting, capacity building, and curriculum development	Clinton HIV/AIDS Initiative works with markets and governments to make treatments more accessible in the developing world

DFID	6 African countries, Cambodia, and Nepal	Financial assistance	• Invests £450 million over the next three years to support national health plans, incorporating training of more nurses, midwives, and doctors	
USAID Capacity Project	Developing countries; build and sustain the health workforce (Latin America, Africa, Eastern Europe, and Asia)	Assessment, financial, and technical support Global leadership; generating, organizing, and communicating knowledge about HRH Provides country-level support to implement effective and sustainable HRH programs	• Supports improved workforce planning and leadership • Assists in developing better education and training programs • Assists in strengthening systems to support workforce performance • Encourages health workers to remain at their posts	Participated in the development of the HRH Action Framework, published in the 2006 *World Health Report*

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Annex 3: Existing recommendations

Code of Practice on International Recruitment of Health Personnel

Upon recognizing the significance of migration of health workers for health systems, the World Health Assembly adopted resolution WHA57.19, which called for the development of a Code of Practice on the International Recruitment of Health Personnel. Web-based public hearings on the first draft code of practice were held by the WHO on September 1–30, 2008. Those who were invited to contribute to the hearing included member states, health workers, recruiters, employers, academic and research institutions, health professional organizations, and relevant sub-regional, regional, and international organizations. The initiative provided all members concerned with international recruitment of health personnel an opportunity to comment on the draft. Input has been received and published on the WHO website.

Objectives of the code

The code of practice has four main objectives:

1. Establish and promote voluntary principles, standards, and practices for the international recruitment of health personnel
2. Serve as an instrument of reference to help member states establish or improve the legal and institutional framework required for the international recruitment of health personnel and in the formulation and implementation of appropriate measures
3. Provide guidance that may be used where appropriate in the formulation and implementation of bilateral agreements and other international legal instruments, both binding and voluntary
4. Facilitate and promote international discussion and advance cooperation on matters related to the international recruitment of health personnel

Key elements of the code

The key elements of the first draft of the Code of Practice on International Recruitment of Health Personnel can be summarized into five categories: ethical and fair recruitment, partnership and mutuality of benefits, safeguarding the health workforce, monitoring of international health worker migration flows, and accession to and withdrawal from the code.

Although it is not legally binding, the framework is anticipated to promote ethical recruitment, the protection of migrant health workers' rights, and remedies for addressing the economic and social impact of health worker migration in developing countries. While several other codes of practice for the international recruitment of healthcare professionals already exist on a regional level, the WHO Code of Practice is expected be the first of its kind on a global scale for migration (WHO 2007, WHO 2008).

Source:
Resolution WHA 57.19
http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R19-en.pdf
WHO Code of Practice on International Recruitment of Health Personnel
http://www.who.int/bulletin/volumes/86/10/08-058578.pdf
Summary of comments on the code of practice
http://www.who.int/hrh/public_hearing/comments/en/print.html

Kampala Declaration and Agenda for Global Action

Endorsed by the participants of the first Global Forum on Human Resources for Health, held in Kampala, Uganda, on March 6, 2008, the Kampala Declaration and Agenda for Global Action serves to bring global attention to the worsening health worker crisis.

The contents of the Kampala Declaration consist of 12 elements calling upon:

1. government leaders to provide the stewardship to resolve the health worker crisis, involving all relevant stakeholders and providing political momentum to the process;
2. leaders of bilateral and multilateral development partners to provide coordinated and coherent support to formulate and implement comprehensive country health workforce strategies and plans;
3. governments to determine the appropriate health workforce skill mix and to institute coordinated policies, including through public-private partnerships, for an immediate, massive scale-up of community and mid-level health workers, while also addressing the need for more highly trained and specialized staff;
4. governments to devise rigorous accreditation systems for health worker education and training, complemented by stringent regulatory frameworks developed in close cooperation with health workers and their professional organizations;

5. governments, civil society, the private sector, and professional organizations to strengthen leadership and management capacity at all levels;
6. governments to assure adequate incentives and an enabling and safe working environment for effective retention and equitable distribution of the health workers;
7. while acknowledging that migration of health workers is a reality and has both positive and negative impacts, countries to put appropriate mechanisms in place to shape the health workforce market in favor of retention. The WHO will accelerate negotiations for a code of practice on the international recruitment of health personnel;
8. all countries to work collectively to address current and anticipated global health workforce shortages. Richer countries will give high priority and adequate funding to train and recruit sufficient health personnel from within their own countries;
9. governments to increase their own financing of the health workforce, with international institutions relaxing the macro-economic constraints on their doing so;
10. multilateral and bilateral development partners to provide dependable, sustained, and adequate financial support and immediately to fulfill existing pledges concerning health and development;
11. countries to create health workforce information systems, to improve research, and to develop capacity for data management in order to institutionalize evidence-based decision making and enhance shared learning; and
12. the GHWA to monitor the implementation of this Kampala Declaration and Agenda for Global Action and to re-convene this forum in two years' time to report and evaluate progress.

Besides the Kampala Declaration, the Kampala Agenda for Global Action proposed six fundamental and interconnected strategies that intend to translate political will, commitments, leadership, and partnership into effective actions in addressing the health workforce crisis:

1. Building coherent national and global leadership for health workforce solutions;
2. Ensuring capacity for an informed response based on evidence and joint learning;
3. Scaling up health worker education and training;
4. Retaining an effective, responsive, and equitably distributed health workforce;

5. Managing the pressures of the international health workforce market and its impact on migration; and
6. Securing additional and more productive investment in the health workforce.

Source:
Kampala Declaration and Agenda for Global Action:
http://www.who.int/workforcealliance/Kampala%20Declaration%20and%20Agenda%20web%20file.%20FINAL.pdf

Task shifting to tackle health worker shortage: global recommendation and guidelines

The WHO, together with PEPFAR and UNAIDS, has developed global guidelines for task shifting. These guidelines were formally launched during the first ever Global Conference on Task Shifting held in Addis Ababa on January 8–10, 2008. The conference convened health ministers and other senior government officials, opinion leaders, United Nations agencies, and NGOs from both industrialized and resource-constrained countries, and, concluded with an endorsement of the Addis Ababa Declaration on Task Shifting.

Task shifting is the name given to a process of delegation whereby tasks are moved, where appropriate, to less specialized health workers. By reorganizing the workforce in this way, task shifting presents a viable solution for improving healthcare coverage by making more efficient use of the human resources already available and by quickly increasing capacity while training and retention programs are expanded.

Example: task shifting in Uganda

In Uganda, task shifting is already the basis for providing antiretroviral therapy. With only one doctor for every 22,000 patients and an overall health worker deficit of up to 80 percent, Uganda is making a virtue of necessity. Uganda's nurses are now undertaking a range of tasks that were formerly the responsibility of doctors. In turn, tasks that were formerly the responsibility of nurses have been shifted to community health workers, who have training but not professional qualifications. As part of the approach, Uganda has expanded its human resources for delivering HIV and AIDS services by creating a range of non-professional types of healthcare

workers. These people receive specific training for the tasks they are asked to perform.

Source:
Addis Ababa Declaration on Task Shifting
http://www.who.int/entity/healthsystems/task_shifting/Addis_Declaration_EN.pdf

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Strengthening Health Financing in Partner Developing Countries

*Ravindra P. Rannan-Eliya**

The Health Challenges Confronting Developing Countries

Three serious health challenges confront developing countries and require health to remain a core issue in global development: 1) many partner developing countries are not making adequate progress toward the health-related Millennium Development Goals (MDGs), 2) large gaps in social health protection make a major contribution to impoverishment in many countries, and 3) deficiencies in health systems increasingly impair human security not only in partner developing countries but also in middle- and high-income countries.

The centrality of health in the development agenda is reflected in the fact that three of the eight MDGs are health related (MDGs 4, 5, and 6) and that G8 members have made substantial commitments in previous meetings. Nevertheless, while substantial progress is being made toward most MDGs, the most serious shortfalls that have emerged are clearly in human development and health.[1] Despite substantial progress toward the disease-focused MDG 6

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(HIV/AIDS, malaria, and other diseases), much of the developing world is off track to achieve the more general, and ultimately more important, MDGs 4 and 5 (child and maternal mortality respectively). In sub-Saharan Africa and South Asia, most people live in countries that are actually doing worse in terms of progress than before the 1990s, despite the MDG commitments.[2] Improving progress toward the health-related MDGs will require substantial increases in access to services and the performance of health systems, which is simply not possible until more effective financing policies are established in partner developing countries.

The past decade has seen growing evidence that households are likely to be confronted with catastrophic expenses when they are forced to pay out-of-pocket for healthcare. Globally, more than 100 million people each year fall into poverty because of the cost of medical treatment,[3] exacerbating and perpetuating poverty in the poorest countries. Health-related expenses remain the most important reason for households being pushed back below the poverty line, even in some of the fast-growing countries of Asia, such as China, Vietnam, and Bangladesh.[4]

The recent increased awareness of the need to improve financial risk protection from catastrophic health expenditures has forged a convergence between the previously separate agendas for health and social protection. It places the issue of health coverage directly within Japan's guiding framework of human security, and it coincides with the joint interests of EU member states to make social health protection a second pillar in EU strategies to strengthen health systems.[5] At the same time, moving toward social health protection is central to the World Health Organization's (WHO) renewed emphasis on the primary healthcare approach to strengthening health systems.[6] This shift in attention to the social protection aspects of health policy also marks an alignment in global health policy with core motivations of social protection and solidarity that have always guided health financing in the G8 nations themselves.

Alongside these developments, the growing interconnectedness of G8 members and partner developing countries as a result of globalization forces a broader view of human security that takes into account emerging transnational threats to health. With the poorest economies often being the likely foci of future pandemics,[7] as well as presenting new risks to global food and supply chains,[8] the G8 countries have a keen interest in ensuring that partner countries adequately and effectively finance core public health functions in their health systems.

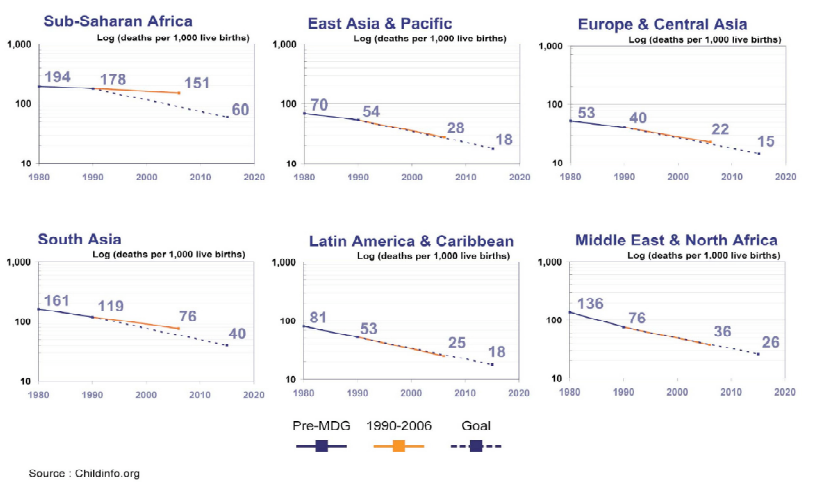
What Drives these Problems?

Progress to date

The G8 has responded to the health-related MDGs in the past decade by committing significant new resources for health sectors in developing countries. Since the 2002 Monterey Summit, external financing flows for health have been scaled up from both official partners and private sources, especially for HIV/AIDS and maternal and child health.[9] Partner developing countries have also increased domestic financing, with significant increases in Africa achieved through a mix of fiscal expansions and increased prioritization of health in government budgets.[10] Indeed, as Dr. Margaret Chan, the head of the WHO, observes, "health has never before seen such wealth."[11]

Yet, despite this scaling up of both external aid and domestic financing, rates of progress toward attaining MDGs 4 and 5 have not significantly changed, especially in the most critical regions of sub-Saharan Africa and South Asia,[12] where the recent data suggest even a slowing of progress in the years since 1990 (fig. 1).[13] In no developing region has performance dramatically improved. Money alone has proved sufficient neither to achieve better health gains, nor to reduce impoverishment from catastrophic medical bills.

Figure 1: Progress toward MDG 4 by region, 1980–2006[14]



Source : Childinfo.org

Key reasons

There are several reasons why partner developing countries have often failed to improve progress toward health goals or social protection. In failed states, the explanation is undoubtedly the lack of any functioning health system and the general disruption of normal life. In these conditions, where we may have to accept that attaining the MDGs is not feasible, the only effective response will often be external humanitarian assistance, including donor-led delivery interventions.

In the case of other developing countries, the critical problems lie at the level of the health system for the most part and require concerted policies and action by and with partner developing countries. It is no coincidence that the greatest lags in progress occur with those MDGs—4 and 5—that require improvements at a broad level across the whole health system and which are not as susceptible to disease-focused interventions as is the case with MDG 6. There are several key reasons for this:

- inadequate funding for health in many countries
- ineffective and inefficient health financing and delivery systems that give rise to significant shortfalls between what is achieved and what was potentially feasible with the funding that was available
- lack of integration between funding for vertical and horizontal programs, resulting in competition for resources and undermining national strategies and
- lack of information on what countries know about the operation of their health systems and potential solutions

Inadequate funding is critical, but how much is needed?

Despite the considerably higher burden of disease and ill health in developing countries, overall health spending in partner countries is significantly less than that in developed countries. The average G8 nation spent more than 10 percent of GDP on health in 2007, compared with 5 and 6 percent in low- and middle-income partner countries respectively.[15] Even after adjusting for purchasing differences, health spending in the poorest countries, at US$20–50 per capita, is one-thirtieth the level of that in developed countries, and less than US$30 in most of the partner countries of greatest concern. This lower level of spending buys developing countries lower levels of coverage by effective health

interventions. For example, in the typical developing country the average person is able to see a doctor only one or two times a year, while the much healthier citizens of G8 nations visit a doctor five to seven times a year on average.[16] Increasing spending can clearly help to improve coverage and access.

The clear emphasis on increasing official development assistance (ODA) for health since at least 2000 demonstrates the G8's recognition of this constraint.[17] While both G8 and partner countries have certainly delivered in terms of increased funding for health, especially in areas linked to MDGs 4, 5 and 6,[18] it is worth pausing and asking whether this has been enough.

There have been many efforts since the early 1990s by the UN, World Bank, WHO, and others to answer how much financing is required either to scale up access to basic minimum services or to achieve some or all of the health-related MDGs. Their estimates suggest that the required public and external financing in low-income countries ranges from US$30 to US$50 per capita (and higher in middle-income countries).[19] In contrast, actual public spending in low-income countries is less than US$15, of which up to 40 percent, on average, is from external financing.

Although further increases in external financing are needed, it has to be accepted that even without the current global financial crisis, achieving levels of US$30–50 per capita from both public and external sources in the poorest countries was never realistic by 2015. Such target levels of expenditure represent 10–20 percent of GDP in the poorest countries, and are, on average, much higher than their overall tax revenues, implying that the shortfall could only be met by external flows. That level of external flows would, in most countries, present serious challenges in terms of absorption and macroeconomic stability.

However, the likely shortfalls in funding compared with the global targets do not necessarily eliminate any likelihood of substantial progress toward key health goals. There are three reasons for thinking this.

First, most of the global cost estimates appear to be overestimated, when estimated using actual country data. Recent efforts have responded to such criticism by applying methods that use country-level data. Such projects by the UN, UNICEF, the World Bank, and others have tended to produce much lower estimates on required funding, of the order of US$20–35 per capita.[20]

In addition, current global cost estimates assume that future expansions in health service coverage will cost as much as current service delivery. This ignores the potential for countries to partly fund expansions in coverage by improvements in the technical efficiency of service delivery, i.e., by reducing the average unit cost of a service. This assumption not only runs counter to histori-

cal experience in Organisation for Economic Co-operation and Development (OECD) nations, where efficiency gains have typically reduced costs,[21] but it also ignores evidence of similar 1–2 percent efficiency gains in developing countries.[22] Developing countries that have been able to generate such efficiency gains in the past have been able to expand services considerably with only modest increases in spending, since a 2 percent annual increase in efficiency implies a doubling of service delivery every 20 years without any increase in funding. Past examples include Botswana, which doubled service coverage during 1960–1980 without increasing health budgets as a share of GDP, and Uganda, which financed a tripling of service delivery during 1955–1969, half through increased spending and half via efficiency gains.

Finally, several low-income and lower-middle-income developing countries have been able to achieve universal access to basic health services and also stay on track to achieve their health-related MDGs, but almost all of them have done so by spending far less than the global targets for spending. For example, Sri Lanka, a low-income country, had largely achieved universal access by 1990, with government and private spending being less than US$10 per capita each. Vietnam today is well on track with similar levels of financing.

This suggests that even if funding does not attain currently identified global targets, it does not mean that countries cannot make substantial progress toward the MDGs and in expanding access to health services. More attention, therefore, needs to be given to increasing the value obtained from current and future spending on health in developing countries.

Inefficient and ineffective health financing and delivery systems

The notion that health spending is often inefficient and that more spending does not necessarily result in better outcomes is well known to G8 nations. For example, in the United States, health spending per capita varies more than three-fold across the country, and yet higher spending does not necessarily result in better outcomes, nor does lower spending translate into lower quality, with such centers of medical excellence as the Mayo Clinic able to deliver high-quality care at half the cost or less of other centers.[23] Problems of how money is transformed into effective, accessible, quality healthcare are also well documented in many developing countries.[24] These problems of inefficiency fall into two types: allocative and technical. Allocative inefficiency is the suboptimal distribution of available public resources across the potential uses or programs. For example, in many developing countries, preventive health services

may be underfunded, while another service, such as family planning, may receive disproportionately more resources despite there being a similar need.

Technical inefficiencies further impair the effectiveness of money invested in programs or interventions. Such inefficiencies might mean that providers do not use the least-cost method for delivering a service or provide the best quality for any given level of resources. Examples include the use of antibiotics when oral rehydration solution is sufficient for cases of diarrhea, procurement systems' failure to purchase medicines at the lowest available prices, or an inefficient mix of medicines and personnel being used to provide a service. Technical inefficiencies can also be due to low productivity of healthcare workers, who see fewer patients than they might. The impact of such inefficiencies can be large, and, in some countries, can be seen in as much as a tenfold variation in the unit cost of delivering similar services at different facilities.[25]

The existence of such inefficiencies, and the potential they imply for improving the results from health spending, have been recognized since the early 1990s, for example in the World Bank's *World Development Report 1993* and by the WHO Commission on Macroeconomics and Health.[26] However, not much weight was placed on addressing this problem—in contrast to that of inadequate funding—since it was felt that not enough was known about what actions could be taken.[27] While this may have been a sensible strategy in the 1990s, it has not been without consequence. The problem of inefficiency has largely been neglected for the past decade, with minimal efforts being made to understand the problem and identify possible solutions. Now that funding levels have improved, and the variation in the value that different countries achieve for their spending is even clearer, the time is long overdue focus attention on this area.

Lack of integration between health systems and vertical programs

Frustration at the difficulties of rapidly expanding health systems coverage, considerations about the efficiency of different approaches to delivering critical interventions, as well as changing priorities in health, have led to the development of vertical health programs in many countries. However, while these initiatives have certainly been successful in promoting specific communicable diseases on the global health agenda, vertical programs have themselves created three major problems. First, the selective, external financing of such programs often leads to distortions within health systems, as better-funded vertical programs compete for and deprive other parts of the health system of critical

inputs, such as staffing. Second, vertical programs often make it harder for countries to effectively plan the development of an integrated health service delivery system, which must remain at the core of any sustainable expansion in overall health services coverage. Third, such programs may fail to benefit from the synergies of integrated services.[28]

These problems are not new. The original Alma Ata Declaration of 1978 with its commitment to integrated health service delivery, a commitment that is encapsulated in the WHO concept of primary healthcare, was a reaction to the perception that investments in selective primary healthcare and other vertical interventions had undermined the development of developing country health sectors. In the 1990s, the pendulum swung back, as growing frustration with actual progress in developing primary healthcare, and the apparent inability to deal with increases in devastating and costly communicable diseases, led to increased investments in vertical programs. The G8 has been on both sides of this debate, committing to supporting overall health systems but also investing heavily in vertical programs through such channels as the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) and the US President's Emergency Plan for AIDS Relief (PEPFAR). However, it is now readily apparent that greater focus is needed to assist countries to strengthen their overall health systems and integrated delivery, as the Global Fund and other initiatives run up against the limitations of weak health systems with often restricted capacity for scaling up. This is a significant motivation for the WHO's new call to refocus on primary healthcare in its *World Health Report 2008* and is reflected concretely in the International Health Partnership and Related Initiatives (IHP+) and Providing for Health (P4H) initiatives that stress harmonization and health system strengthening.

Lack of information and evidence to manage health systems effectively

Inadequate information and evidence are critical constraints to improving the performance of health systems. Problems exist in two areas. First, health information systems in most developing countries continue to be weak and cannot provide health managers with the information required to effectively monitor and improve service delivery and financing strategies. Common deficiencies include 1) the lack of reliable information systems, such as national health accounts, to track overall spending, whether it be public financing, external resource flows, or private spending;[29] 2) the lack of routine information systems to track equity in health services, which are

vital both to identify inequities and to develop responses;[30] and 3) the lack of information systems that provide managers with data to understand the operational efficiency of their health services, and which can support improvement of overall service delivery. It must be stressed, though, that in most developing countries, the lack of such systems is not due to the lack of information tools or platforms but to the severe lack of domestic capacities to implement and sustain such tools.

Second, as countries face the challenge of improving their health systems and financing strategies, we often know which countries have done well and might be good models for emulation, but we know far less about the operational details of how they did it. Such a lack of easily accessible knowledge about best practices in financing and delivery, and the lack of mechanisms to share such knowledge among developing countries, mean that good performance is rarely shared and learned from.

The Importance of Health Financing Policies

The half-way mark in the 15-year timeframe for achieving the MDGs, which began in 2000, has already passed. Yet, it is hard to demonstrate that increased investments in partner countries have accelerated progress toward MDGs 4 and 5. Even after allowing for the fact that HIV/AIDS seriously slowed or reversed health gains in Africa, progress in other regions has not appreciably improved, and in some it has even slowed (fig. 1).

Money is essential for delivering healthcare, but it alone does not translate into better health or effective risk protection. In developing countries, as in the G8, there is little, if any, relationship between the amount that countries spend and health outcomes, or indeed, between total spending and risk protection.[31] In the coming years, the fiscal pressures facing G8 members and partner developing countries will be severe. It will require significant efforts to increase expenditures for health, but there will be constraints on how much spending can be further increased. In this context, and given what we already know about the often poor correlation between total spending and health outcomes, it is critical to complement the G8 focus on increasing spending with an emphasis on improving the value of health spending in partner health systems.

Health financing is the most important control knob that policymakers have to influence the operation of a health system. Health financing includes not

only the processes that mobilize funding but also how funds are channeled and applied to obtain health services. Other than the need for more money, there is broad consensus among technical agencies and experts that developing countries face three key challenges in their health financing strategies:

1. how best to expand risk pooling
2. how to improve efficiency in the use of resources and
3. how to ensure access of the poor to needed services[32]

The first challenge is shifting from out-of-pocket financing to public or private pooling arrangements that ensure effective financial protection and coverage. Out-of-pocket payments remain a dominant source of healthcare financing in developing countries, accounting for 30–85 percent of total health spending in the poorest countries. Large out-of-pocket payments to obtain needed care often impoverish households. The global evidence shows that the extent to which households face such catastrophic expenses is directly related to the extent to which health systems rely on out-of-pocket financing.[33] Without significant risk pooling, developing countries are unable to prevent a high incidence of financial catastrophe associated with sickness or achieve basic social protection objectives.

The second challenge countries face is ensuring that financing mechanisms support better allocation and use of inputs. When provision is direct, governments can simply plan the allocation of resources, but whether the allocation of resources is efficient and equitable cannot be guaranteed. When provision is indirect, in the sense that governments purchase services from independent providers—as can occur in insurance-based systems—the allocation of resources depends on how providers are paid and on what basis. How resource allocation is linked to financing and the details of actual implementation matter for the overall efficiency of the health system.

The third challenge is expanding access by the poor to needed and effective medical services, which are critical to health improvements. In most countries, the poor lack adequate access, either because they cannot overcome the financial barriers or because funding fails to bring services close to them. Unless this gap is addressed, overall health indicators will not improve substantially. Whether they are public sector user fees or payments made to private providers, out-of-pocket payments are significant barriers to health improvement. They discourage use and reduce coverage of available preventive and personal curative services, both of which are needed to improve health outcomes. A principal justification for removing public sector user fees is that it provides a

free alternative to private provision, thus expanding the availability of services that are affordable to the poor. Recent work in Africa has shown how even small payments associated with the social marketing of mosquito nets reduce uptake and make such social marketing investments far less cost-effective than free public distribution.[34] By increasing utilization of critical services, abolition of user fees can also improve their cost-efficiency.

Health financing policies in partner countries thus must serve three key functions:

1. Revenue collection—This refers to how funds are mobilized, e.g., general revenue taxation, social health insurance (SHI), out-of-pocket payments, etc. This determines the overall level of funds mobilized and how sustainable these levels are. In general, revenue collection capacity depends on a country's economic and institutional development, which is least in the poorest countries
2. Risk pooling—This is critical for financial protection. It depends on the ability to prepay and share across the population the expenses involved in medical treatment. Both tax and insurance financing can serve this function, but, as with revenue collection, country capacity for risk pooling increases with income, with capacity being weakest in the poorest countries
3. Resource allocation and purchasing—This involves how resources are allocated to inputs, services, and patients and how providers are paid. When provision is directly organized through government-operated services, it can be difficult to ensure efficient allocation. Yet, when provision is indirect through purchasing, it requires a minimum degree of government capacity to do effectively, and this is more likely to be lacking in the poorest countries

Strengthening policies for health financing is critical for partner developing countries. Failure to do so continues to be the main constraint, preventing the realization of better outcomes from current investments. Where developing countries have put effective policies in place, they have been able to achieve universal coverage, effective risk protection, and sustained improvement in health outcomes, and they often do so at below-average levels of expenditure.[35]

What Do We Know and What Do We Not Know?

What financing options do developing countries have?

In practice, there are only four different financing methods available to countries other than out-of-pocket financing and external aid: 1) tax-financed national health services (NHS), 2) SHI, 3) community health insurance, and 4) private or voluntary insurance.[36]

The first two—tax-funded NHS and SHI—are the predominant forms in G8 nations with the exception of the United States, where private health insurance plays a major role. The problem for developing countries is to know which methods to use and how to implement them effectively in order to expand risk pooling, ensure access for the poor, and maximize efficiency in use of resources.

Tax-financed national health services

Tax-financed NHS are the most common strategy that developing countries have adopted. In this, public revenue collection is through general revenue taxation, with the funds directly financing government-operated healthcare services, which are made available to the whole population on a universal basis at zero or minimal price. The approach integrates public financing and provision.

Tax financing has many advantages. First, it achieves the highest degree of risk pooling and has proved the most equitable in being able to distribute costs most fairly across the whole population.[37] Second, taxation offers a broader revenue base than social insurance and one less likely to act as a disincentive for formal sector job creation. In poor countries, while most people cannot make significant insurance contributions, almost all of their governments are still able to raise taxes. Third, a key selling point is that it makes services available for free, thus eliminating financial barriers to access.

Unfortunately, most developing countries that rely on this approach fail to achieve equitable access to health services and adequate risk protection. Despite the promise of universality, in many countries the rich capture the available public services, leaving the poor without access. Such public systems often operate with great inefficiency, resulting in low quality and inadequate, unresponsive provision.[38] However, as in G8 nations, there is no empirical evidence that public sector provision is any more inefficient than the alternative private provision.

Nevertheless, several countries at all income levels successfully use the tax-financed NHS mechanism to provide the poor with access to services and effective risk protection. Examples include Sri Lanka, Kerala in India, Honduras, Malaysia, Botswana, and many Caribbean and Pacific Island states. Most do so at low cost, with government health spending being less than average, and less than 2–3 percent of GDP. Most are also exceptional health performers, on track to achieve their health-related MDGs. However, it is important to appreciate that these are not replicas of the NHS systems found in G8 nations, such as the UK, where the public sector provides almost all services. All of these developing countries have privately financed private health sectors accounting for a substantial 35–60 percent of overall financing and provision. Unlike G8 nations, these poor countries cannot afford to allocate the level of tax revenues (4–5 percent of GDP) that is necessary to ensure that almost all service provision is publicly financed. So their ability to manage their public-private mix in financing and delivery is critical. Unlike other poor countries, they manage to use the public system to reach the poor, while persuading the rich to self-pay for private services. Among high-income economies, Hong Kong SAR (China) and Cyprus provide comparable cases.[39]

Crucially, the only low-income countries that have been able to ensure universal and pro-poor access to health services,[40] and which are able to ensure effective risk protection,[41] all employ this tax-financed, government delivery approach complemented by private financing and provision. Unfortunately, there is only limited understanding of what these best practice countries do differently to be so successful and what lessons they can give to others. Abolition of user fees might be one element, but we do not fully understand how they are able to deliver services efficiently so as to meet the inevitable increases in patient demand, which have challenged African countries that have recently abolished fees.[42] Similarly, most do not means-test access to services, but we do not fully understand how they are able to ensure that public services serve mostly the poor.

Social health insurance

SHI is the main financing method in many developing countries, particularly middle-income ones. It involves the mandatory collection of contributions from designated segments of the population (typically through payroll taxes), and pooling of these contributions in independent funds that pay for services on behalf of the insured. In the classic SHI model, which originated in

Germany, there is an explicit link between making contributions and the right to benefits.[43] SHI can achieve significant risk pooling and equitably distribute the burden of payments between rich and poor, but not as much as general revenue taxation.[44]

Many middle-income countries have successfully used SHI to achieve universal access and effective risk protection. However, although often seen as a solution to failed tax-financed NHS systems, it has proven much harder to implement in the setting of low-income countries. To date, no country whose income is below US$1,000 per capita has been able to achieve universal access to healthcare services through SHI.[45] The central problem is that in poor economies with small formal sectors, SHI premiums are much harder to collect than general revenue taxes. Effective premium collection also requires a high degree of state capacity, (government technical and administrative capability), which tends to be most limited in low-income countries. Consequently, most developing countries have not been able to extend SHI coverage to the informal sector and rural populations.[46]

Nonetheless, a few poorer countries have had significant success in extending social insurance coverage despite having large informal sectors. None of them follow the classic SHI model, where insurance coverage is linked to insurance payments. All of them deviate by employing substantial tax monies to fund their SHI schemes and by extending insurance coverage mostly on a noncontributory basis. For example, both Mongolia[47] and Thailand[48] extended coverage with SHI to 90–100 percent of their population, but in order to finance the majority of the population who were outside the formal sector, 60 percent or more of the insurance fund comes from general revenue taxes. In both cases, increases in taxation were necessary. In Mongolia, these allocations could not be sustained and coverage fell, illustrating how difficult it is for poor countries to use SHI when their tax base is small. It is also worth noting that both countries have largely used the expanded SHI schemes to pay for public provision, suggesting that public provision can still play an important role under SHI.

Currently, some low-income countries, such as Ghana and Rwanda,[49] are attempting to use SHI to achieve universal coverage. However, none have been able to raise coverage levels to over 75 percent.[50] We do not know enough about the limitations they face or how well coverage actually benefits the poor. Countries such as these need much more information than we currently have on how other best-practice countries with small formal sectors succeeded in achieving universal SHI coverage.

Community-based health insurance

Community-based health insurance (CBHI) differs from SHI in that it involves voluntary membership and is controlled by community organizations rather than state agencies. Although CBHI was once important in some G8 nations (i.e., Germany and Japan) where it preceded the establishment of SHI, it is not used today by any developed country and is only found in the poorest countries.

CBHI takes diverse forms, but it typically operates where those in the informal sector incur out-of-pocket costs in order to obtain healthcare, and they lack access to other insurance. Evaluations by the World Bank, the International Labour Organization, and others conclude that in low-income settings CBHI schemes make only modest contributions to overall coverage and only as a complement to other formal schemes.[51] With the exceptions of China and a few schemes in India, CBHI has not proven able to cover large numbers of people (coverage rarely exceeds 10 percent of the population) or reach the very poor.[52] The main reasons are that the voluntary contributions of poor people are usually insufficient to fund the required levels of coverage, the risk pooling provided is inadequate, and scaling up such informal arrangements proves to be difficult.

Although many continue to advocate CBHI as a potential stop-gap solution, the evidence clearly indicates that CBHI approaches are not able to scale up to achieve universal coverage or provide high levels of effective risk protection.

Private or voluntary health insurance

Private or "voluntary" health insurance provides some element of risk pooling, which can be substantial if coverage is arranged through organized employee groups. However, well-known problems in insurance markets of adverse selection and cream-skimming severely limit its ability to cover people outside organized employee groups.[53] Private insurance schemes tend to be highly cost-inefficient, as they incur significant administrative costs and provide few pressures for cost control. Thus, in G8 nations, private health insurance has never been able to extend health coverage to most people, and its main purpose in Europe is only to provide complementary coverage to other public schemes. Even in the United States, where private health insurance is most developed, it leaves more than 45 million people uncovered[54] and is a significant factor behind high overall health expenditures.[55] In developing countries, the smaller

formal sector and weaker financial markets generally limit coverage of private health insurance to less than 2–5 percent of the population, and to less than 5 percent of overall healthcare financing.[56] Strong adverse selection effects usually eliminate the market for many types of coverage relevant to MDGs 4, 5, and 6, with items such as maternal care, routine outpatient treatment, and HIV/AIDS care often excluded.

There have been frequent claims (for example in Africa in the 1990s) that private insurance initiatives might provide a way to scale up healthcare coverage in low-income countries.[57] Yet experience has shown that none have been able to surmount the basic problems that prevent private insurance from scaling up or being cost effective in the G8 setting.[58] Currently, there are initiatives to support private health insurance schemes in Africa, but none have demonstrated the ability to scale up coverage in the poorest African countries. Indeed, one project in Namibia proposes to spend more than US$35 per capita to extend subsidized private health insurance schemes for upper-middle-income workers, which does not appear to provide a cost-effective, sustainable, or equitable way to use scarce donor funds for extending coverage to the poor in a region where per capita spending on the poor is typically less than US$10.[59]

What do we know to improve healthcare financing policies in developing countries?

In the past three decades, we have accumulated considerable knowledge about what works in healthcare financing in developing countries and what does not, to supplement what has been learned in G8 countries themselves. There is now broad consensus among technical experts and development agencies that the key to increasing coverage of health services in the poorest countries, and improving equity and risk protection, is to expand and rely on public financing.[60]

The general principles by which developing countries and their donor partners should improve health financing are clear:

1. to improve coverage of the poor and to improve financial risk protection, countries must shift financing from out-of-pocket payments toward reliance on public financing, involving tax financing and/or SHI
2. although the ability to mobilize tax financing in the poorest countries is inherently limited, many countries have room to increase current levels and should do more to promote such funding for health[61]

3. increased external assistance can help, but its effectiveness depends on better pooling and integration with domestic sources of financing and better design
4. if SHI is relied on to expand public spending in poor countries, it must be partly financed by taxation to enable coverage extension to the poor; given the constraints to increasing taxation in the poorest countries, this makes SHI less feasible in these countries
5. where tax-financed NHS are the main channel for public spending, countries will need to share the burden of financing with the private sector; yet, the public-private mix must be managed effectively so that public spending preferentially reaches the poor
6. user fees for health interventions whose coverage needs to increase should be reduced or eliminated where possible so as to improve access by the poor
7. countries should not rely on private health insurance or CBHI to expand coverage of the services to the poor, since experience in both G8 and developing countries has repeatedly shown that they are not effective

Where are the gaps in what we know?

While the broad principles are clear, we often lack detailed knowledge of how to achieve such improvements in actual and diverse country settings. There are several reasons. One is that health financing has tended to suffer from conflicts over ideology and analytic approaches. The debates between market and non-market perspectives in particular have hindered consensus formation on what the evidence shows. Nevertheless, there is now consensus that in the area of healthcare financing, a strong state role is universally needed to address inherent market failures in financing, and there is acceptance that market approaches may sometimes benefit the delivery side.

Another reason is there has been insufficient effort to explain and learn from the past experience of best practices in health financing in the developing world. Technical experts find it easier to research and evaluate programmatic interventions, which lend themselves more easily to experimental methods, than to research and explain successes at the level of national financing systems, where more historical and reflective approaches are needed. Consequently, we know surprisingly little about what lessons can be drawn from such successes and how they can be applied to others.[62]

A third reason relates to the way in which development agencies broker global knowledge about what works in health financing. These agencies source much

of this knowledge from what is generated through their own country investment and advisory activities, but because their mandates lead them to focus on countries with poor health financing policies, their in-house knowledge on best practice countries is often limited.

There are four areas where critical knowledge gaps have emerged:

1. A few developing countries operate tax-funded, integrated health services alongside private provision to achieve effective and equitable coverage of the poor, despite limited spending. They often do this without explicitly targeting public services. How they do this and manage the public-private mix needs to be better understood since it has direct relevance to the poorest countries with limited fiscal capacity and capabilities to use more sophisticated strategies.
2. New public sector management has been advocated for developing countries to split purchasing from provision and to use the financing mechanism as a lever to improve the performance of public services. However, success with this approach has been rare in poor countries, often due to weak institutions. Knowledge is limited on how to assess institutional preconditions for such reforms, how to address weaknesses, and whether such reforms are beneficial.
3. Expansion of SHI from already established formal sector groups to the informal and rural sectors confronts significant challenges in many countries. Not enough is known about how successful countries tackled this in the past and how such expansions should be implemented so as to make universal coverage feasible.
4. Several developing countries achieve high levels of health service coverage and sustain rapid improvements in health indicators despite small expenditures, certainly far below currently recommended international targets. What explains their ability to obtain such good value from little financing and what role the financing system plays are not sufficiently understood.

Challenges for the G8 in Health Financing and Global Initiatives

The G8 plays a lead role in influencing the global health agenda, and its member countries provide crucial assistance to partner developing countries. The past decade has seen significant increases in funding for health, but the impact in terms of accelerated health progress has often been modest or negligible.

Looking forward, the G8 needs not only to raise support but also to work with partner countries to improve financing policies so as to increase the returns to health investments. To do this, the G8 faces five challenges:

1. The G8 cannot impose better policies on partner countries. How does the G8 encourage countries to increase their commitment and take ownership of better policies?
2. Donor assistance is not without limits. How should funding gaps be prioritized?
3. Despite broad consensus on the key principles of effective health financing, the G8 countries themselves often contribute to policy confusion in developing countries. How can this be resolved?
4. Vertical funds and initiatives are a key channel for external financing, but they often cause tensions within health systems. How can this be addressed?
5. The global financial crisis will squeeze the fiscal capacity of both developed and developing countries. What should the response be?

Improving the policy environment in partner developing countries

World Bank and OECD work on aid effectiveness shows that health ODA is only effective in improving health outcomes in countries with sound policies and institutions. Conditionality only works if governments are committed to the conditions they agreed to. Donors cannot force policies, only help to design them, and since aid is fungible, external investments often effect little change in spending patterns.[63]

The emergence of good policy is evidently not just a result of evidence. Germany did not introduce SHI, or Thailand move toward universal coverage, simply because of technical analysis. Politics and political leadership also matter. However, national capacity to assess policy options, to adapt international and domestic experience, and to analyze challenges is a necessary tool to facilitate policy change and to extend healthcare coverage in a sustainable manner. Japan is a powerful reminder of this: from the late 1800s, its capacity to assess international experiences and decide for itself what was most appropriate drove the establishment and design of its health system. Similarly, the United States has significantly expanded the policy analysis capacity available to its policymakers as it confronts the challenges of improving coverage and achieving better value for public health spending.[64]

For improvements in financing policy to be sustained, countries—more than donor partners, must be convinced that policies are desirable, and they must have the adequate capacity to implement those policies. Most developing countries lack the technical capacity to make their own assessments, which would also enable them to retain ownership over these choices. Consequently, they often mistrust or reject evidence. Thailand is known for its recent reforms, but these were made possible by a sustained effort to build national capacity for health systems policy research. In contrast, many African countries lack even one qualified health financing expert, let alone institutions.

Although this gap in national capacities has been recognized,[65] there has been little improvement in practice in the past decade. There are a few examples of best practice in using ODA to build capacity, such as in the Kyrgyz Republic and China, but these are exceptions. In the spirit of partnership, the G8 needs to facilitate the building of in-country policy analysis capacity to complement its other efforts to support policies.

Prioritizing funding gaps for external assistance

Country policies and institutions matter. At the same time, it is not realistic to expect that all assistance should only be given to countries with good policies and institutions. First, countries with weak institutions are the ones that are most likely to fail to achieve the health-related MDGs, and thereby the most in need. Second, humanitarian considerations matter to the governments and publics of G8 nations, and in the case of failed or highly vulnerable states, it is not realistic to link assistance to the actions of the government. In stronger countries, the direction may be to link external assistance to performance. However, even this is not straightforward. The relationship between investment and outcomes is often difficult to show, so basing performance on outcomes is not easy. More importantly, if the performance goals that donors use are not related to a country's own strategies, then this will only undermine national coordination and planning.

Thus, the G8 needs a more strategic approach to allocating external assistance. In the weakest, most vulnerable or failed states, humanitarian objectives must predominate, and direct support to health services may be required, if necessary through nongovernmental providers. At the same time, in weak states, the key development goal of building state capacity cannot be ignored. External assistance to Afghanistan has often bypassed state institutions because of frustration with weak capacity. Yet such policies have almost certainly undermined

state development, overall aid effectiveness, and critical G8 interests in that country.[66]

Where countries are stronger, assistance should focus on encouraging better policy strategies and not specific programmatic objectives. This is best done through arrangements that ensure that ODA objectives are aligned with national plans, such as through sector-wide agreements.[67] G8 nations have recognized this through their support for initiatives such as IHP+ and P4H, both of which embody the principles of aid harmonization, support for country policies, and public financing. These have the potential to significantly improve health financing in partner countries, and the G8 should substantially expand its support for both.

Resolving mixed donor messages on health financing

Lack of consensus among technical experts and G8 members, as well as a consistent failure to take a systemic approach to health financing, have led the development community to frequently change the recommendations that it makes on health financing to country partners. For example, in the past three decades, leading agencies have advised African countries that the solutions to the region's health financing problems include introducing user fees,[68] revolving drug funds,[69] private health insurance,[70] and community health insurance; increasing taxation;[71] removing user fees; and introducing SHI and private health insurance again.[72]

Other than reducing the credibility of global evidence, these contradictions cause uncertainties at the country level and undermine coordination between donor and partner countries. The most serious problem is the differing interpretations by G8 members on the choice between the SHI model and tax-financed NHS. The choice between the two is a nuanced one and depends critically on the specific country circumstances. It is embodied in the P4H initiative and reflected in many high-level documents issued by the OECD, the EU, and others,[73] as well as in the relevant WHO resolution,[74] which some G8 members have endorsed. However, this consensus is frequently negated by the practical differences that often arise between agency officials in the messages delivered to countries.[75] At the same time, the general consensus on public financing that has been achieved by most experts and is reflected in international consensus documents has not translated well into clear policy commitments. So, for example, although the G8 countries have committed to supporting public financing mechanisms through P4H, and several European

governments have committed to supporting the abolition of user fees as a first step, the development community continues to provide conflicting signals. Given the central importance of this issue, there is a role that the G8 should play in advocating a clear and robust common position, building on the consensus represented by P4H.

Resolving tensions between vertical initiatives and health systems

The many vertical health initiatives, such as the Global Fund and PEPFAR, represent a major source of new funding for health systems. The tensions that they cause are well known. Although new initiatives, such as IHP+, are working to harmonize donor investments, these vertical initiatives will continue. One response to this problem has been to urge them to allocate part of their funding toward health system strengthening and cross-cutting activities.

The efforts of the Global Fund to do this are instructive. Its mandate prevents it from substantially changing what it can finance, but when the Global Fund opened up channels for health system strengthening support, actual take-up by countries was poor. The main reason for this appears to be weak capacity within countries to prepare effective proposals exploiting such new funding windows. This reveals that the real issue is not that vertical funding initiatives undermine country planning but that the capacity of overall country planning and management to effectively coordinate external funding flows is typically weak. These are problems that need more attention not by such vertical initiatives but by those agencies whose remit is to support health system strengthening, such as the World Bank and the WHO. In this respect, the P4H initiative can make an important contribution by supporting countries to better link domestic and external financing.

The implications of the emerging global financial crisis

The current financial crisis will lead to severe pressures on the budgets of both developed and developing country partners. In the past, this has resulted in reductions in ODA from developed countries and reductions in public spending by developing countries. There will be temptations to use policy to shift the burden of health financing back to private sources and to cut back on support to the poorest countries. Is this the appropriate and inevitable response this time? The lessons of the past, as well as pragmatic considerations, suggest not.

First, past experience in both developed and developing countries clearly shows that at times of severe economic slowdown, the poorest people are least able to fall back on private resources in order to meet health and social needs. This was the case in countries as diverse as Japan and Sri Lanka in the early 1930s and in Thailand and Indonesia following the 1997–1998 currency crisis. In each instance, recognition of the failure of private mechanisms led to stronger national commitments to use public financing for health. Such situations indeed provide the rare political opportunities to expand social protection (as it did in the United States in the 1930s), and donor countries would do well to support developing countries in doing this. Second, as the global economy slows, both developed and developing nations must respond to the International Monetary Fund's call to take concerted action to increase domestic consumption.[76] The G8 countries have an interest in encouraging policies that boost consumption at lowest fiscal cost in both developed and developing countries. Expansions of health coverage can represent one of the most effective fiscal multipliers to do this. In fact, in the case of China, a significant expansion in public spending on basic health services is likely to be one of the most effective ways of boosting domestic demand.

Finally, the G8 and partner developing countries have a mutual interest in preventing the financial crisis from leading to protectionism that reverses past gains in trade liberalization. A sustained recession, with its negative impacts on large numbers of workers, has the potential to undermine confidence in the global market economy and in an open trading system. It is precisely in this situation that investing in effective and expanded publicly financed social protection mechanisms, including health, to assist vulnerable groups will be most valuable in maintaining support for an open global economy.

Recommendations for G8 Action

Despite substantial increases in investments in global health by G8 members, overall performance by developing country partners toward the health-related MDGs has not visibly accelerated. Weaknesses in health financing policies at the country level play a major role. More money is necessary, but improving the value of health spending through improvements in financing policies is also crucial. The global financial crisis has increased fiscal and credit constraints in both developed and developing countries and increases the vulnerability of those without access to health coverage. This increases the need for effective social health protection measures, strengthening moves toward universal coverage.

The G8 should respond with three actions:

1. The G8 should complement its efforts on increasing money for health with efforts to improve the value of health spending through support for better country-led health financing and systems policies.
2. The G8 should build on the existing consensus among technical experts with an explicit G8 commitment to prioritize support for country health financing policies that place public financing for health, in the form of tax financing and/or SHI, as the core of efforts to expand coverage for poor people and vulnerable groups in society.
3. The G8 should invest in the ability of developing country partners to make better financing policies. This will require increased investments in building national capacity for health systems policy assessment and in the mechanisms to understand and share the lessons of best practice countries.

Implications

The commitment to prioritize support for country health financing policies that place public financing at their core recognizes that the key goal is to increase risk pooling and reduce financial barriers to access by the poor, if health coverage and human security are to be improved. In concrete terms, this should translate into the following:

1. Explicit support and encouragement for partner developing countries who wish to abolish user fees in their public sectors, recognizing that the abolition of user fees must be accompanied by appropriate investments in health systems to ensure that free services are actually available to and used by poor people. Such policies might start first with the provision of services relevant to MDGs 4, 5, and 6.
2. Bolstering the IHP+ and P4H initiatives, with directions to G8 countries' aid agencies and multilateral agencies to ensure a clear and coherent message to partner developing countries that both taxation and SHI financing are recommended options but that their choice will depend on the specific country circumstances. This should reflect the global evidence indicating that SHI mechanisms are more feasible in middle-income country settings, while tax-financed mechanisms have worked even in low-income country settings.

Investing in country capacity to make good health financing policy choices recognizes that only when developing countries can take ownership over these decisions will the necessary country commitment be forthcoming. In concrete terms, this requires the following:

1. Scaling up of investments to develop country capacity for health systems policy analysis;
2. Significant investment to support partner developing countries in improving the evidence base on best practices in country financing and delivery that is needed to inform better policies and in a way that encourages joint learning; and
3. A fresh look at what has worked before in capacity building, and how agency practices can be improved, to avoid the lip service to capacity building that has unfortunately characterized past activities.[77]

Opportunities

It would be wrong to think that the current economic climate is a bad time to expand the G8's commitments to improve health in developing countries. Indeed, it is a unique opportunity to address key challenges in health sectors.

In past meetings, the G8 has laid a credible basis for addressing the health problems facing partner countries, demonstrated by their scaled-up external assistance for health and their commitments to support health system strengthening. More recently, the IHP+ and P4H initiatives pushed by G8 nations, such as France, Germany, and the UK, justify enhanced engagement that is based on alignment with country-led policies, support for public financing to improve coverage and equity, and enhanced social health protection. Both initiatives also stress the importance of investing in the capacity of countries to assess their own progress and learn from each other's own experience. So the IHP+ and P4H initiatives provide an important framework to advance the key recommendations of this chapter.

The G8 should build on and enhance the two initiatives, by providing a clear message of its support for translating the principle of public financing for better health into increased reliance on taxation and SHI, improving the value of health spending, and enabling developing countries to take greater ownership. This can and should explicitly identify the progressive attainment of universal coverage and strengthening of social health protection as the two motivating goals.

At the same time, the G8 should challenge fears that the crisis will reduce available funding for health. As noted, the current financial crisis requires fiscal expansion, and not contraction, in both developed and developing nations. Instead, the crisis provides an opportunity to support increases in health spending that are linked to better coverage and which can strengthen health systems to achieve better value for their spending. In this respect, the High-Level Task Force on Innovative International Financing for Health Systems can play an important role. It can learn from past efforts to identify new ways for G8 nations to financially support health systems and capacity building, at a time when conventional ODA budgets may be under pressure. At the same time, it should recognize that the key driver for better health systems is the health financing policies of countries themselves and that innovative new external financing mechanisms will only be effective if they link to and encourage better domestic policies in countries.

Notes

1. International Monetary Fund and World Bank, *Global Monitoring Report 2008: MDGs and the Environment: Agenda for Inclusive and Sustainable Development* (Washington DC: International Monetary Fund and World Bank, 2008).
2. Adam Wagstaff and Mariam Claeson, *The Millennium Development Goals for Health: Rising to the Challenges* (Washington DC: World Bank, 2004).
3. Ke Xu et al., "Protecting Households from Catastrophic Health Spending," *Health Affairs* 26, no. 4 (2007). cited in *WHO World Health Report 2008*, xiv.
4. More than 70 million people a year have been estimated to fall below the poverty line in selected countries of Asia, with as many as 2.6 percent of households in China and 3.8 percent in Bangladesh doing so in a given month. Eddy van Doorslaer et al., "Effect of Payments for Health Care on Poverty Estimates in 11 Countries in Asia: An Analysis of Household Survey Data," *Lancet* 368, no. 9544 (2006).
5. EU Presidency/Commission, "Background Paper for Informal Meeting of Development Ministers of the European Union, 29–30 September 2008—Working Session: Strengthening Health Systems in Developing Countries" (Brussels: EU Commission, 2008).
6. World Health Organization, *World Health Report 2008: Primary Health Care Now More Than Ever* (Geneva: World Health Organization, 2008).
7. As recent experiences with HIV, SARS, and avian influenza have shown, the most significant global risks of new pandemic pathogens arise in the poorest economies where there is the greatest risk of new pathogens emerging, owing in particular to agricultural practices, and where public surveillance and control systems are weakest.
8. This is well illustrated by the global impacts of the contamination of milk products with melamine in China in 2008.
9. Giulia Greco et al., "Countdown to 2015: Assessment of Donor Assistance to Maternal, Newborn, and Child Health between 2003 and 2006," *Lancet* 371, Special issue Countdown 2008 (2008).
10. Ke Xu et al., "Protecting Households from Catastrophic Health Spending,"
11. Margaret Chan, *Address by Dr. Margaret Chan to Executive Board of WHO* (WHO, 2007 [cited 25 September 2008]); available at http://www.who.int/dg/speeches/2007/eb120_opening/en/index.html.
12. Ke Xu et al., "Protecting Households from Catastrophic Health Spending."
13. To achieve MDGs 4 and 5, countries must reduce child and maternal mortality by two-thirds of their 1990 levels by 2015. This translates into an average annual reduction in mortality rates of 4.3 percent a year. Historically, the annual rates at which individual countries have been able to reduce mortality have tended to be quite steady over time for individual countries. So for most countries, the MDGs imply accelerating the rate of decline in mortality. For child mortality (MDG 4) for which data are the most reliable, the evidence shows that for the critical regions of South Asia and sub-Saharan Africa, the rates at which countries have been reducing mortality have in fact slowed during the 1990s, with progress being slower than in the preceding decades. To some extent, this is due to the impact of HIV in sub-Saharan Africa, but elsewhere, such as South Asia, this is clearly not the reason.
14. Child mortality estimates from the Inter-Agency Group for Child Mortality Estimation, as described in Edilberto Loaiza, Tessa Wardlaw, and Peter Salama, "Child Mortality 30 Years after the Alma-Ata Declaration," *Lancet* 372 (2008).
15. World Health Organization, *World Health Statistics 2008* (Geneva: World Health Organization, 2008). See also note 7 above.
16. In OECD countries, annual rates of doctor consultations range from 4 to 15 per year, as detailed in OECD, *Health at Glance 2007: OECD Indicators* (Paris: OECD, 2007). This is

4–10 times more than in most low-income countries. In the case of hospitalizations, the disparity is even greater, with annual rates in OECD countries being 5–10 times higher.

17. At the 2000 Okinawa Summit, the G7 committed to finding and mobilizing substantial new financial resources for HIV/AIDS and health in general in order to support expansion of coverage of critical health services in developing countries.
18. Figure 1 shows that overall external flows for health have increased in the past decade. In addition, other data suggest significant increases in recent years in the specific areas of HIV/AIDS and also maternal, neonatal, and child health [Greco et al., "Countdown to 2015: Assessment of Donor Assistance to Maternal, Newborn, and Child Health between 2003 and 2006." *Lancet* 371 (2008): 1268–1275]. Other data show that domestic financing has also increased in most partner countries.
19. A large number of estimates of the global financing needs have been published. They range considerably in their implied amounts because of differences in the methodologies used and also in what they attempt to estimate. Some, for example, focus on the marginal increases in public spending required to achieve just the health-related MDGs, while others attempt to estimate overall financing levels (both public and external) required to achieve universal coverage with basic health services. The key estimates are given by the WHO Commission on Macroeconomics and Health, *Macroeconomics and Health: Investing in Health for Economic Development* (Geneva: World Health Organization, 2001), which estimated a public financing need of US$34 per capita in 2001 in low-income countries, and other more recent World Bank estimates, which have suggested a requirement of US$30-50 per capita in the poorer developing countries.
20. Pablo Gottret and George Schieber, *Health Financing Revisited: A Practitioner's Guide* (Washington DC: World Bank, 2006). For a discussion of the UN MDG Needs Assessment Model, the UNICEF/World Bank/WHO Marginal Budgeting for Bottlenecks Model, and other alternative cost estimates, see Chapter 7.
21. Ernst R Berndt et al., "Chapter 3: Medical Care Prices and Output," in *Handbook of Health Economics*, ed. A. J. Culyer and J. P. Newhouse (Amsterdam: Elsevier Science BV, 2000). The authors review the considerable efforts that have been made to estimate health service efficiency changes in mostly developed economies. See also Martin Hensher, *Financing Health Systems through Efficiency Gains*, Paper No. WG3:2, *CMH Working Paper Series* (Geneva: Commission on Macroeconomics and Health, 2001).
22. Ravindra P. Rannan-Eliya, "Towards a Model of Endogenous Mortality Decline: The Dynamic Role of Learning and Productivity in Health Systems" (A thesis submitted to the Faculty of the Harvard School of Public Health in partial fulfillment of the requirements for the degree of Doctor of Public Health, Harvard University, 2004).
23. Peter R. Orszag, "Increasing the Value of Federal Spending on Health Care," in *Statement of Peter R. Orszag, Director, CBO, before the Committee on the Budget, U.S. House of Representatives, July 16, 2008* (Washington DC: Congressional Budget Office, 2008).
24. World Bank, *World Development Report 2004: Making Services Work for Poor People* (New York: Oxford University Press, 2003);.Gottret and Schieber, *Health Financing Revisited: A Practitioner's Guide*.
25. Rannan-Eliya, "Towards a Model of Endogenous Mortality Decline."
26. Hensher, *Financing Health Systems through Efficiency Gains*.
27. Observations by Christopher J. L. Murray, Institute for Health Metrics and Evaluation, at the International Conference on Global Action for Health System Strengthening, November 3–4, 2008.
28. *World Health Report 2008* (p.49) provides an example of how comprehensive health centers are more effective in increasing coverage rates for vaccination than more selective delivery facilities.
29. Although there have been significant investments by the WHO, the World Bank, and several

G8 members to support the development of such NHA systems in partner developing countries since the early 1990s, very few of these investments have resulted in sustained capacity in developing countries to maintain such systems [Anna H. Glenngård and Frida Hjalte, "Findings from a Study of Regional NHA Networks" (Stockholm: SIDA, 2005)].

30. The importance of developing national systems to routinely monitor and understand inequalities is a key recommendation of the WHO Commission on Social Determinants of Health, *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health.* (Geneva: World Health Organization, 2008).
31. See note 7 above.
32. Gottret and Schieber, *Health Financing Revisited*.
33. Eddy van Doorslaer et al., "Catastrophic Payments for Health Care in Asia," *Health Economics* 16, no. 11 (2007). See also note 4 above.
34. Jessica Cohen and Pascaline Dupas, "Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment" (Cambridge, MA: Poverty Action Lab, Massachusetts Institute of Technology, 2008).
35. Several examples of this, such as Sri Lanka, Thailand, Costa Rica, and Tunisia, are discussed in Gottret and Schieber, *Health Financing Revisited*.
36. Gottret and Schieber, *Health Financing Revisited*.
37. Comparative analyses of who pays taxes in Europe and in other developing regions consistently find that taxation is the mechanism that places the least burden on the poor and mobilizes the most from the better-off [Eddy van Doorslaer, Adam Wagstaffe, Frans Rutten, ed., *Equity in the Finance and Delivery of Health Care: An International Perspective* (Oxford: Oxford University Press, 1993)]. Although there has been concern that indirect taxation, which predominates in many developing countries, is regressive, largely based on this being the situation in Europe, actual studies have demonstrated that in most developing countries even indirect taxation is progressive in its incidence [Owen O'Donnell et al., "Who Pays for Health Care in Asia?" *Journal of Health Economics* 27 (2008)].
38. Gottret and Schieber, *Health Financing Revisited*; Hensher, *Financing Health Systems through Efficiency Gains*.
39. Although Hong Kong SAR and Cyprus are high-income economies, their health financing strategies have until recently looked more like other developing economies, with public financing only paying for about half of overall healthcare services.
40. Owen O'Donnell et al., "The Incidence of Public Spending on Healthcare: Comparative Evidence from Asia," *World Bank Economic Review* 21, no. 1 (2007); Lucy Gilson et al., "Challenging Inequity through Health Systems: Final Report of the Knowledge Network on Health Systems" (Johannesburg: Centre for Health Policy, University of the Witwatersrand, 2007).
41. See note 4 above.
42. Lucy Gilson and Di McIntyre, "Removing User Fees for Primary Care in Africa: The Need for Careful Action," *British Medical Journal* 331 (2005).
43. It is often argued that this link can make SHI more politically sustainable than tax financing.
44. In contrast to the NHS model, SHI usually involves a separation of financing from provision, which allows for purchasing and the use of direct financial incentives to motivate providers. However, this reliance on payment for services can induce inefficiencies as providers face incentives to provide excess care or to raise costs.
45. See note 4 above.
46. William C. Hsiao and R. Paul Shaw, eds., *Social Health Insurance for Developing Nations*, *WBI Development Studies* (Washington DC: World Bank, 2007).
47. P. Nymadawa and K. Tungalag, "Mongolia," in *Social Health Insurance: Selected Case Studies*

from Asia and the Pacific (New Delhi: WHO Regional Office for South-East Asia and WHO Regional Office for Western Pacific Region, 2005).

48. Viroj Tangcharoensathien et al., "Thailand," in *Social Health Insurance: Selected Case Studies from Asia and the Pacific* (New Delhi: WHO Regional Office for South-East Asia and WHO Regional Office for Western Pacific Region, 2005).
49. Rwanda is often described as relying not on SHI but on community health insurance, but the high level of public subsidies for the Rwandan *mutuelles* (more than 50 percent) and the considerable degree of state involvement and management mean that it resembles a form of SHI.
50. Coverage is less than 40 percent still in Ghana and has reached just under 75 percent in Rwanda.
51. ILO and STEP (Strategies and Tools against Exclusion and Poverty), "Extending Social Health Protection in Health through Community-Based Health Organizations" (Geneva: International Labor Organization, 2002); Bjorn Ekman, "Community-Based Health Insurance in Low-Income Countries: A Systematic Review of the Evidence," *Health Policy and Planning* 19, no. 5 (2004); Melitta Jakab and C. Krishnan, "Review of the Strengths and Weaknesses of Community Financing," in *Health Financing for Poor People: Resource Mobilization and Risk Sharing*, ed. Alexander Preker and Guy Carrin (Washington DC: World Bank, 2004); Gottret and Schieber, *Health Financing Revisited*.
52. M. Kent Ranson et al., "Equitable Utilisation of Indian Community Based Health Insurance Scheme among Its Rural Membership: Cluster Randomised Controlled Trial," *BMJ* 334, no. 7607 (2007).
53. William C. Hsiao, "Why Is a Systemic View of Health Financing Necessary?" *Health Affairs* 26, no. 4 (2007); Gottret and Schieber, *Health Financing Revisited: A Practitioner's Guide*.
54. Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, "Income, Poverty, and Health Insurance Coverage in the United States: 2007, Current Population Reports, P60–235" (Washington DC: US Census Bureau, 2008).
55. Gerard F. Anderson et al., "It's the Prices, Stupid: Why the United States Is So Different from Other Countries," *Health Affairs* 22, no. 3 (2003).
56. Gottret and Schieber, *Health Financing Revisited: A Practitioner's Guide*; see also note 16 above.
57. R. Paul Shaw and Charles C. Griffin, *Financing Health Care in Sub-Saharan Africa through User Fees and Insurance*, *Directions in Development* (Washington DC: World Bank, 1995).
58. Mukesh Chawla and Ravi P. Rannan-Eliya, "Experiences with Resource Mobilization Strategies in Five Developing Countries—What Can We Learn," *Data for Decision Making Publication Number 31-2* (Boston: Harvard School of Public Health, 1997).
59. This is based on a review of the available documentation for initiatives supported by the Dutch Health Insurance Fund in Nigeria and Namibia.
60. ILO, "Social Health Protection: An ILO Strategy Towards Universal Access to Health Care," (Geneva: Social Security Department, International Labour Organization, 2007); World Health Organization, *World Health Report 2008: Primary Health Care Now More Than Ever*; Gottret and Schieber, *Health Financing Revisited: A Practitioner's Guide*; see also note 7 above.
61. Gottret and Schieber, *Health Financing Revisited: A Practitioner's Guide*.
62. Ibid.
63. Ibid.
64. Peter R. Orszag, "Increasing the Value of Federal Spending on Health Care."
65. Ministerial Summit on Health Research, "The Mexico Statement on Health Research—Knowledge for Better Health: Strengthening Health Systems" (Mexico City: Ministerial Summit on Health Research, Mexico City, November 16–20, 2004).
66. World Bank, "Afghanistan: Managing Public Finances for Development (Report No. 34582-

Af)" (Washington DC: World Bank, 2005); Matt Waldman, "Falling Short: Aid Effectiveness in Afghanistan" (Kabul: Agency Coordinating Body for Afghan Relief (ACBAR), 2008).

67. Ke Xu et al., "Protecting Households from Catastrophic Health Spending"; Gottret and Schieber, *Health Financing Revisited*.
68. John Akin, Nancy Birdsall, and David De Ferranti, *Financing Health Services in Developing Countries: An Agenda for Reform, A World Bank Policy Study* (Washington DC: World Bank, 1987).
69. UNICEF, "The Bamako Initiative; Reaching Health Goals through Strengthened Services Delivery" (New York: Bamako Initiative Management Unit, UNICEF, 1990).
70. World Bank, *Better Health in Africa, Development in Practice Series* (Washington DC: World Bank, 1995); Shaw and Griffin, *Financing Health Care in Sub-Saharan Africa through User Fees and Insurance, Directions in Development*.
71. Ke Xu et al., "Protecting Households from Catastrophic Health Spending."
72. In 2006, the Dutch government invested €100 million in the Health Insurance Fund to support development of private health insurance schemes in Africa (see http://www.hifund.nl).
73. WHO, *World Health Report 2008: Primary Health Care Now More Than Ever*.
74. WHO World Health Assembly Resolution 58.33—"Sustainable health financing, universal coverage and social health insurance."
75. For example, conflicting recommendations on tax financing and SHI by different European donors and international agencies have led to fierce disputes between donor partners in Bangladesh and Tanzania (personal communications from relevant officials to author).
76. International Monetary Fund, "Letter from IMF Managing Director Dominique Strauss-Kahn to the G-20 Heads of Governments and Institutions, 6 November 2008" (Washington DC: International Monetary Fund, 2008).
77. WHO Alliance for Health Systems and Policy Research reviewed what might be done in its 2007 Biennial Review, but this initiative needs to be followed up on.

Task Force on Global Action for Health System Strengthening

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Toward Collective Action in Health Information

*Kenji Shibuya**

Globally, 9 percent of total gross national income is spent in the health sector. Donor agencies transfer US$16 billion for health programs in developing countries each year.[1] These figures represent an unprecedented increase in funding for health, and as a result, the global health landscape is unrecognizable from a decade ago. The Millennium Development Goals (MDGs) have revitalized interest in global health issues, and the influx of new money and multiple stakeholders has opened the way to innovative structures, networks, partnerships, and alliances beyond traditional health and development models.

This attention is accompanied by greater demand for more and better information to track performance and ensure accountability. There is growing global interest in health information, particularly in metrics and evaluation, as exemplified by the MDGs and such major global health initiatives as performance-based financing. This unprecedented interest has increased the pressure on countries and agencies to generate high-quality and timely data.[2]

As one of the most influential entities in the global health arena, the G8 has an important role in tackling the deficiencies in the systems that are expected to generate this information. At the Toyako G8 Summit, the *Report of the G8 Health Experts Group* recognized the need for action to create appropriate

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monitoring and assessment of health systems so that policymakers could base their decisions on accurate health information.[3]

This chapter briefly reviews the current status of health metrics and evaluation in the context of health system strengthening and describes the role of the G8. We identify key challenges in this field and propose the development of a standard set of health metrics, accompanied by a measurement strategy, to monitor, evaluate, and facilitate the effective use of resources in global health. We conclude that collective action is required to promote the generation and use of sound health information, particularly at the country level, and to realize the G8's commitment to more accountability for the resources that are being invested in improving national health systems.

The Case for Better Health Information

During the past decade, health systems have become a prominent agenda item in global health, reflected in the World Health Organization's (WHO) *World Health Report 2000*; initiatives such as the International Health Partnership (UK), Women and Children First (Norway), the Catalytic Initiative to Save a Million Lives (Canada); efforts to advance social protection for health (Germany and France); and the Toyako G8 Summit and follow-up activities (Japan).[4]

However, without sound measurements to benchmark achievements and efficiency of resource use, debates on priorities for health and what does or does not work tend to be based more on ideology than on evidence.[5] The higher profile of health systems and the rapidly escalating demand for more progress and accountability in global health have exposed major gaps in the supply and use of health statistics for developing countries.

Health is one of the fundamental components of human security and development.[6] Effective health governance—the ability of national governments and the international development community to meet the health needs of the peoples of the world—requires laws, development, partnerships, and evidence.[7]

Health information contributes to all four of these functions at the global and national levels. The evidence function of health governance relies on the capacity to count, and account for, births, deaths, and causes of death. Counting everyone can also safeguard individual rights related to survival, livelihood, and dignity. While strengthening health information is essentially a national matter, the provision and accuracy of this information also has global implications insofar as it contributes to human security and development. Development

efforts in health and human security converge around the critical need for better information.

Health information can also serve other purposes: first, to sustain interest in, and funding for, global health by demonstrating positive results; second, to enhance efficiency by building a solid knowledge base of what works, thus generating a process of shared learning among countries; third, to improve the quality of decision making by providing sound evidence; fourth, to foster interdisciplinary dialogue by bringing together various areas of enquiry; and fifth, to promote the values of transparency and accountability as essential ingredients of democratic governance both nationally and globally.[8]

Health agencies and countries are actually generating increasing amounts of data.[9] Such data, however, do not necessarily provide comprehensive information for users, nor do they answer critical questions posed by the global health community. The lack of effective and efficient health monitoring and evaluation can be attributed to the following six factors.

First, the quantity and quality of data relevant for monitoring progress and assessing health systems is poor and has suffered from considerable underinvestment in the past decade.[10] Second, the efforts for correcting the scarcity of data have led to proliferation of indicators, inconsistent frameworks, and fragmented activities among stakeholders.[11] Third, work is duplicated across agencies, and these agencies compete to fill the same gaps rather than maximizing their comparative advantages.[12] Fourth, progress toward making data openly accessible remains slow.[13] As an example, at the midpoint of the efforts toward achieving the MDGs, there is no publicly accessible complete database with primary data on child mortality, the indicator for MDG 4.[14] Fifth, there is an obvious trade-off between country ownership, which was a core component of the Paris Declaration,[15] and independent evaluations. In particular, despite a growing trend toward performance-based disbursement, agencies are still vulnerable to political pressure from recipient countries.[16] Finally, many countries lack both the incentives and capacity to collect, share, analyze, and interpret better quality data.[17]

Health System Strengthening and Health Information

Global efforts to improve health conditions in poor countries have employed two distinct strategies in recent decades, one focusing on health systems and the other on specific diseases. The first strategy has emphasized

principle-based approaches to health improvement. In the late 1970s, the world embarked on a major effort to strengthen health systems, through the primary healthcare movement. The second strategy has emphasized disease-specific approaches, exemplified by the formation of disease control programs and funding mechanisms such as the Global Alliance for Vaccines and Immunization (GAVI) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund).

Currently, a consensus is emerging that the health problems of low- and middle-income countries can only be addressed with a more balanced approach between disease-specific and system-based solutions. While the government of Japan supported a strong vertical approach for three major communicable diseases in 2000 at the Kyusyu-Okinawa G8 Summit,[18] eight years later, the Toyako G8 Summit statement on health includes commitments to both achieving MDGs 4, 5, and 6 and strengthening health systems.[19]

The Health 8 (H8), an informal group of eight major health-related organizations (the WHO, UNICEF, the UN Population Fund, UNAIDS, the Global Fund, GAVI, the Bill & Melinda Gates Foundation, and the World Bank), is now advocating for scaling up of high-impact interventions needed to reach these goals. The International Health Partnership and Related Initiatives (IHP+), brings the H8, the African Development Bank, the Organisation for Economic Co-operation and Development, the European Commission, 14 countries, and 12 donor agencies together to advocate for strong donor coordination and country ownership, with an emphasis on meeting the health-related MDGs and on general health system strengthening.

But tension persists between the disease-specific programs and health system strengthening. In particular, there is limited evidence that disease-specific programs have contributed to strengthening health systems. Previous attempts to achieve strong donor coordination (e.g., poverty reduction strategies and sector-wide approaches) have not been shown to help improve health system performance.[20]

The challenge with such coordinated efforts for strengthening health systems is carefully monitoring how the country's plan is developed since no metrics have been developed to assess the impact of donor coordination. Efforts must be made to measure the extent to which donor coordination truly leads to improved health system performance.

Health information underpins the health system

Among the six core pillars of health systems proposed by the WHO,[21] health information underpins the entire health system, including health system inputs (workforce, financing), process, outputs (effective coverage), and impacts (health outcomes) (table 1). Health information also strengthens stewardship functions.[22]

Table 1: Indicators for assessing health system performance[23]

A. Health system inputs and process measures: These refer to resources invested in the health system and activities introduced to achieve program goals. Indicators in this category track the following:

1. Human resources, such as measures of health personnel per 1,000 people, number of personnel completing training per year, new recruits, attrition rates, etc.
2. Infrastructure and equipment, such as complete inventories of buildings and available technological and laboratory equipment
3. Drug supply, including the types and quantities of drugs available in the area of intervention and broken down by district/sub-area (where relevant)
4. Operational measures, including how many hours per day and how many days per week the facilities are providing services, measures of the management of the referral system, etc.
5. Program activities, such as number and type of community outreach programs, educational materials and workshops for the population, etc.

B. Program output measures: These are measures of the direct output of the health system; they can change in a very short period of time, and any change in them can be directly attributed to the health system. Therefore, they can be used for monitoring progress throughout the implementation of the program, identifying areas of weakness in the program, and evaluating the impact of the program.

1. Coverage: For the set of interventions that are being delivered through a program, coverage is defined as the proportion of the population receiving an intervention out of all those in need of the intervention. In other words, it measures the number of people who received an intervention (the numerator) out of the universe in need of the intervention (denominator). Coverage is measured separately for each intervention and then aggregated into a composite measure of health system coverage.
2. Effective coverage: Effective coverage takes into consideration the quality of the intervention being delivered. Quality ranges from zero to one; if the individual receiving the intervention gets the maximum health gain from it then quality equals one. If an intervention is being delivered but it results in no health gain to an individual, then quality equals zero. Measures of

effective coverage are important to monitor as they track both the population receiving interventions and the quality of the interventions being delivered.

C. **Health outcome (impact) measures**: This refers to the three main goals of a health system, namely improved health, fairness in financial contribution, and responsiveness, but the primary focus is the population health outcomes.
   1. Population health outcomes: Improving the health of the target population is the defining goal of a healthcare program. Metrics for measuring population health include the following:
      a. Child mortality: Under-1 and under-5 mortality
      b. Adult mortality: Age- and sex-specific mortality rates, as well as a summary measure of adult mortality such as 45q15, i.e. the probability of dying between the ages of 15 and 59.
      c. Causes of death: Numbers of deaths attributable to the major causes. The list of major causes might vary slightly across countries but will likely have significant overlap. The composition of the leading causes of death for children and adults should be monitored as useful input into the epidemiologic profile of the population.
      d. Disease-specific health outcomes and risk factors: These should be decided on separately for each program, depending on the composition of the package of services being delivered.
   2. Health expenditure: This is measured in terms of catastrophic health spending and out-of-pocket expenditure. Indicators include total amount of health expenditure from all sources, amount of out-of-pocket health expenditure, and the proportion of households that spend more than 30 percent of their disposable income on health.
   3. Responsiveness: Responsiveness captures the non-medical aspects of the interaction between a patient and the health system. Indicators of the responsiveness of health systems are critical to measure during the implementation of a new system of delivering health care.
      a. Quality of care, including the cleanliness of the facilities, the quality and cleanliness of the patient beds, the availability of food during inpatient stay, patient satisfaction, etc.
      b. Promptness of care/waiting time, such as average waiting times in facilities and average waiting times to get specialized care, when needed.
      c. Access to social networks (mostly for inpatient care), such as whether patients are able to have their family members and other members of their social network visit during their hospital stay.
      d. Communication between providers and patients, such as whether diagnoses are effectively communicated to the patient and whether the patient understands what they are supposed to do upon leaving the facility in terms of taking medication, follow-up visits, etc.

Thus, any global health actions, whether vertical or horizontal, need to be matched by an increase in quality and quantity of health information

and guided by a standard set of health metrics and evaluation methods if they are to have an appreciable (and measurable) effect on health system performance. Generating this information is a great challenge for the horizontal approach as metrics for assessing health system performance require a range of health information, including the dimensions of health worker training, basic health infrastructure, procurement and distribution of reliable supplies of essential medicines, and sustainable in-country health financing and risk-pooling mechanisms.

Information on the entire health system is required to evaluate the impact of health workforce retention and task-shifting policies in sub-Saharan Africa and to test whether performance-based financing, long-term predictable funding, or a mixture of the two would have more impact on health.[24] Without timely and high-quality information, the global community cannot tell whether any health policies are having the intended impact. For example, without adjusted estimates from household surveys, we will not know when or if the MDG 4 target is achieved at country, regional, or global levels.[25]

The political and financial attention now being paid to global health has not been matched by improved information on the performance of health systems and new health programs. This shortfall in knowledge is hampering efforts to create a favorable environment for investments in health. Worst of all, the evidence gap is harming work to improve the health of the most vulnerable populations in the world, who are often identified as the intended beneficiaries of disease-specific initiatives such as GAVI and the Global Fund.[26]

Major functions in health information

Key functions in health information are performed by various stakeholders.[27] Such functions—at global, national, and subnational levels, involving government, academic, and civil society actors—include 1) data collection and compilation, 2) monitoring and evaluation processes, and 3) systematic assessment of evidence on health systems and meta-analysis of health interventions (fig. 1). The latter two steps produce necessary—but not necessarily sufficient—inputs to policy formulation.

At the global level, UN technical agencies have a key role in setting norms and standards for data collection and compilation in countries. For example, the WHO produces the *International Statistical Classification of Diseases and Related Health Problems* and the *International Form of Medical Certificate of Cause of Death*.[28]

At national and subnational levels, health information derives from data sources that are either population based, such as censuses, surveys, and civil registration, or facility based, such as facility censuses, health service records, and administrative records.[29] In many countries, a tension exists between the need to obtain valid and reliable data, often at high cost, and the need for timely local information. In practice, periodic surveys are often used to provide national measurements, whereas local decision makers have to rely on periodic or continuous collection of administrative records.

New methods are needed to improve the validity and reliability of timely local measurements at a reasonable cost, including the use of lower-cost sampling methods with larger design effects, record links between surveys and administrative systems allowing estimation of selection bias in administrative systems, and Bayesian methods for local-area estimation.[30]

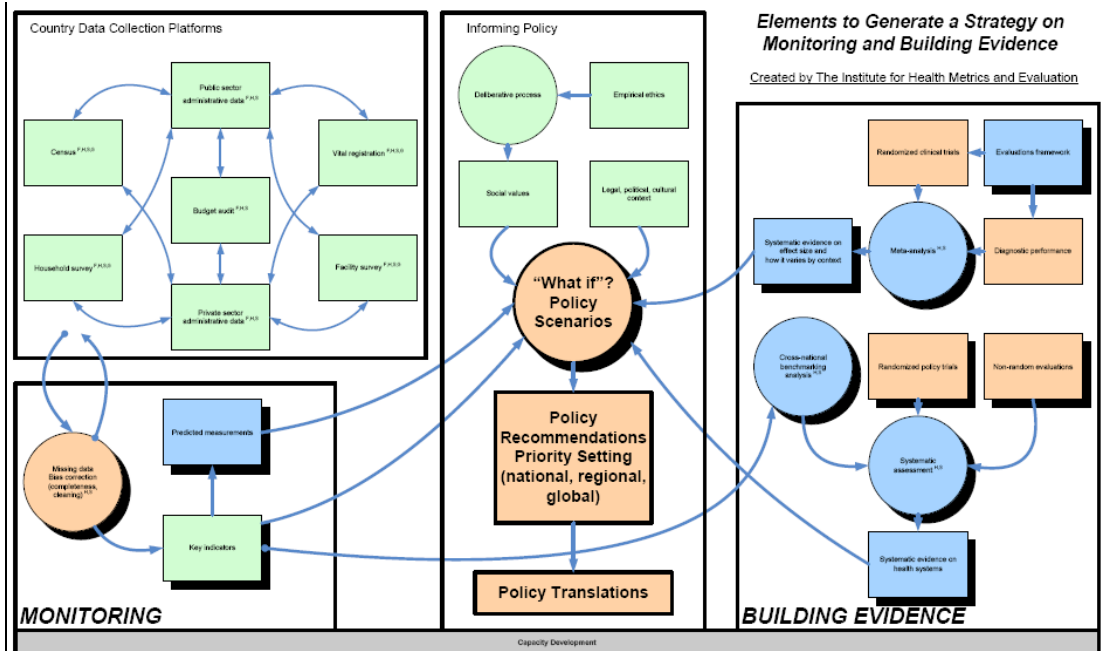
Biased data are of limited use in planning and strategic decision making, program implementation, monitoring of progress toward targets, and assessment of what works and what does not. One of the major functions in country and global health information activities is therefore to derive statistics that are corrected for known sources of bias so that figures are comparable over time and across sites or countries.[31]

The systematic evaluation of health systems and interventions is particularly important to health policy at the national level. Such evaluations can be done by randomized assignment of intervention and control areas or through various non-randomized study designs.[32] Multi-country studies of health system performance are critical to understanding why a certain policy works in one country but not in another.

An often-neglected step in the health information cycle is translating the evidence into policy dialogue and specifying the actions needed to make an impact. The health information products need to be easy to use and designed to meet the immediate and strategic needs of decision makers. This in turn will enhance the awareness of decision makers at all levels of the importance of using reliable health information in their policymaking.

The current flow of health information is often in one direction, from communities to central governments or from countries to international agencies, and there is some concern that there will be further distancing of capacities from local data producers when data gathering and compilation happen at a higher level. In fact, quite a few developing countries are using estimates generated by international agencies to track progress on the MDGs without knowing where such figures come from,[33] and there is a risk that they may not develop their capacities to collect and analyze better quality data. The health

Figure 1



(Source: Institute for Health Metrics and Evaluation, unpublished)

information cycle, therefore, needs to bring the information back to countries and data collectors. The ultimate goal of the global health metrics community is to develop local capacity to collect high-quality data, monitor and evaluate health programs and systems, and inform policy.

The G8's Unique Role in Global Health

The G8 countries account for 48 percent of the global economy and provide roughly 75 percent of the world's development assistance. Although the G8 lacks a constitutive intergovernmental agreement and a secretariat, since 1996 the G8's annual summit and periodic ministerial meetings have emerged as an important forum for global health policy.[34] The G8 is unique in the global health arena: it is a small, collective decision-making forum, with a relatively new interest in population health in developing countries and a substantive influence on the directions and policies of international agencies.

The G8 initially made commitments to support the WHO and the broader UN system in raising the money these agencies needed but were unable to attract on their own.[35] The G8 then found it necessary to launch its own initiatives and started in 2001 by agreeing on the establishment of the Global Fund, followed by the Africa Action Plan (2001–2002), the Health Action Plan (2003), a focus on HIV/AIDS (2006), and most recently the Toyako Framework for Action on Global Health (2008). The Toyako Framework was the first attempt to promote the health-related MDGs through health system strengthening,[36] consistent with the recent directions proposed by the IHP+ and other global campaigns.

Until recently, the G8 has been silent about the need for accountability in the field of global health.[37] At the Toyako Summit, however, the *Report of the G8 Health Experts Group* explicitly stated the need for "appropriate monitoring and evaluation of health systems" and pointed out that policymakers need to be able "to base their decisions on accurate health information."[38]

G8 leaders have demonstrated their capacity to deliver an alternative to existing multilateral organizations through such initiatives as the establishment of the Global Fund.[39] In addition to the policy and resource commitments the G8 leaders make, their annual summits create value by establishing new principles in normative work, by highlighting new issues, and by altering public discourse on these issues.[40] The G8 also has an unparalleled capacity to link health with broader development and security issues. The G8 can also facilitate dialogue between public and private sectors, mobilizing intellectual, human, and financial

resources from government, business, and civil society active in global health at both the global and country levels.[41]

What should the G8 do in global health information?

In the health information arena, the G8 has the capacity to effectively catalyze action on a set of issues that the existing entities—including the H8, academics, civil society, individual donors, and bilateral aid agencies—cannot tackle effectively in isolation. The G8 should not replicate what a single country or agency can do but focus on the issues for which collective action works most effectively. It should define effective and efficient functions for the global health information architecture.

Several UN agencies have mandates and experience in assisting countries to develop their health information systems. Yet, in the case of the WHO at least, arguably little progress has been achieved in guiding the development of these systems over the past few decades,[42] and some countries have even witnessed declining coverage and completeness of vital event registration. While the WHO has established and disseminated some crucial standards for data collection, it has not effectively supported the widespread implementation of these standards by countries. Nor have the UN and its agencies been successful in building the capacity that countries require for data analysis close to the point of capture.[43]

The Health Metrics Network has provided small grants to 65 countries[44] for health information assessments but can only afford an in-depth focus for 6. While these decisions are a combination of explicit strategy and limited resources, the latter often determines a lack of flexibility among the institutions involved. Ensuring a more effective response to countries' needs for expertise and assistance with health information system development is a role that the G8 could play.

Jamison and colleagues propose a framework for defining essential functions of international organizations (See table 2). The first type of essential function transcends the sovereignty of any one nation-state and therefore makes up the core of international health cooperation. These functions address problems of the global commons, in which individual decisions based on property rights are made ineffective by the fact that use of resources cannot be contained within national boundaries.

This is the case with both global public goods, when use by any one country producing them does not preclude use by other countries, and negative

externalities, when behavior in one country causes danger and financial cost to another. Since they cross national borders, problems of the global commons are shared by rich and poor countries alike. The two core functions to address these problems are the promotion of international public goods and the surveillance and control of negative externalities.

The second type of essential function deals with problems within individual countries that may warrant collective action at an international level owing to the shortcomings of national systems; because they supplement activities that are primarily the responsibility of nation states, these functions are supportive.

The emphasis given to these two essential functions needs to be balanced carefully. In the area of health information, initial collective action can concentrate on the first essential function by developing a global database and setting standards to improve comparability of data, followed by capacity building at country level.

The G8 is uniquely capable of arbitrating the functions and roles of the existing components of the global architecture in health information. Its convening power can be used to revamp existing mechanisms, consolidate fragmented activities, and leverage outputs. In particular, through the G8 follow-up process, governments and agencies need to be encouraged to 1) strengthen existing initiatives to conduct monitoring and evaluations efficiently, 2) generate and share rigorous evidence, 3) synthesize studies, 4) build capacity in developing countries, and 5) link researchers, policymakers, and project managers in an effective health information system for using evidence for policy.[46]

Table 2: Essential objectives and functions of international organizations[45]

Basic objectives	Core functions and examples	Rationale
Assure adequate levels of goods with benefits to all countries	Promotion of global public goods Databases Norms and standards Research and development Consensus building on health policy	Collective action is an economically rational approach to provision of public goods from which all can benefit, and international collective action responds to opportunities, benefits of which cover many nations.
Assure opportune response to global threats and control of international transfer of health risks	Intervention to deal with international externalities Threats specified under the WHO's International Health Regulations Transfer of risk factors Trade in legal and illegal harmful substances	If actions in individual countries have consequences for other countries, leaving decision making to countries will fail to include all costs or benefits.

Supplementary objectives	Supportive functions	Rationale
Support development in countries	Technical cooperation and development financing Capacity building Capacity strengthening	According to special needs, some countries require targeted investments in knowledge and financial resources to enhance conditions for sustainable development.
Protect health of vulnerable groups	Agency for dispossessed The poor Special groups	Ethical imperative to protect people when their governments fail or when their human rights are violated; in self-interest of every nation/state to prevent and resolve humanitarian crises.

Key Challenges and Strategies in Health Information

The amount of data available from agencies and countries is rapidly increasing.[47] However, such data do not yet permit reliable monitoring of the trends of both communicable and noncommunicable disease burdens, evaluation of the impact of health initiatives and investments, or a comparable assessment of the performance of health systems. We do not know whether well-intentioned programs do more good than harm until sound evidence is provided.[48]

There are two major sources for this problem in the field of health information:

1. Existing data are neither accessible nor presented in a coherent way (a problem of technical inefficiency); and
2. Data, very often with limited utility, are collected and compiled in an uncoordinated fashion, hence at higher marginal costs (a problem of allocative inefficiency).

The correction of such inefficiencies across agencies, institutions, and countries will make global health metrics more useful and reliable and leverage the comparative advantage of each stakeholder. The biggest challenge facing the global health community is developing the local capacity needed to collect, share, and analyze the high-quality data that are required to guide the ongoing reform of health systems.

Technical inefficiency

Data availability is the key in monitoring progress toward targets and evaluating the performance of health systems and programs. Many consumers of statistics overlook this fact because numbers—such as those representing progress toward the health-related MDGs—continue to be published annually, and the assumption is that these represent meaningful data.[49] Both governmental and academic consumers of these reports are hampered in their attempts to understand or replicate such estimates because they do not have access to the data from which these were derived.

There are three prominent factors that contribute to technical inefficiency in data collection and compilation: 1) the lack of a common database, 2) the lack of standardized metrics and data quality assurance, and 3) the lack of capacity and incentives to share data.

Lack of a common database: As a general principle, common formats, definitions, and standards should be used to collect, compile, and store health information from countries. However, not all countries have achieved—nor are they likely to in the near future—best international practice in this area. However, there can be considerable information content and value in non-standard data sets (e.g., verbal autopsy-derived data on causes of death). Provided these data are well documented and understood, they should be made more widely available for comparative analyses and included along with more standardized compilations.

At a minimum, a common database should include all currently available data and their metadata, with detailed documentation specifying whether data are crude, adjusted, or projected statistics and including a link to the original dataset.[50]

For example, child mortality, the indicator for MDG 4, is one of a few health-related MDG indicators with good data available from a number of sources. These sources include complete and partial vital registration systems for some countries, Demographic and Health Surveys (DHS) and similar surveys, census questions on the number of children ever born and the number surviving, and sample registration systems. Some efforts have been made to put all data sources used for tracking child mortality in the public domain and harmonize the work of defining past trends and generating current estimates.[51]

Despite a major debate over the completeness of child mortality databases,[52] each institution still maintains an independent and incomplete dataset of child mortality. Some of these are in the public domain and others are not, and

there are quite a few data sources for child mortality that are missing from international databases.[53]

The WHO has two binding rules that ensure its legitimacy in collecting global health information. The first World Health Assembly in 1948 adopted nomenclature regulations for diseases and causes of death,[54] and the International Sanitary Regulations—adopted in 1951 and revised and consolidated as the International Health Regulations in 1969, 1973, 1981, and 2005—provide the organization with its disease surveillance mandate.[55]

However, data compiled by the WHO are often dependent on official reporting from countries, and it is not uncommon that the latest national data are not forwarded to the WHO.[56] For example, although the Register General of India has annually published its reports on medically certified causes of death since 1973, the WHO Mortality Database contains no data on India since 2001. The WHO has not received data from China since 2000. In other words, the two most populous countries in the world are not sending their latest mortality data to the WHO,[57] despite reports being shared with academics and other agencies through their collaborative activities. Better data on interventions' effective coverage, risk factors, and health system variables need to rely on household surveys and administrative records implemented independently by different agencies and countries.

Therefore, the global health community has not yet been able to use all existing data to assess progress toward MDG 4. If all global policy-relevant health data—particularly those related to MDGs 4, 5, and 6, and health systems—were available in a common database, independent analysis and synthesis would be possible at both the country and global levels.

As more data become available for users outside traditional health agencies through advances and investments in information technology, strategic collective action is needed in data compilation, building upon the principles of country ownership of data. Existing entities need to strengthen and clarify their functions, and a common data architecture needs to be developed.

Lack of a standard set of metrics and data quality assurance: When developing health information systems, it is essential to determine what exactly to measure and how frequently and most efficiently to do so, recognizing that countries differ in their information needs and priorities. Little progress will be made if countries are advised to report on thousands of indicators. However, the set of measures needs to be sufficiently broad to capture the key information required to manage the health system (see table 1). G8 leadership to guide efforts to fill this critical knowledge gap would be most welcome.

Likewise, experience with the Global Burden of Disease project and other large comparative analyses suggest that there is limited capacity in many countries to critically appraise data.[58] A prerequisite to improving the quality of health information is to improve the capacity of country analysts—particularly those charged with data collection—to critically appraise data for biases, errors, and general plausibility. These skills are not routinely taught in schools of public health but need to be developed if any progress is to be made with improving data quality.

At the Toyako Summit, the G8 Health Experts Group recommended that the G8 should continue "to encourage further collaboration among stakeholders with the aim of standardizing health metrics to collect, analyse and evaluate health data for policy planning and evaluation" at both the global and the country level.[59] In developing a standard set of metrics, there is always an issue of defining the universe of core indicators and a trade-off between the number of indicators and their quality. The health-related MDGs provide a high-profile illustration.[60] In fact, for the health-related MDG indicators, overall availability of any type of statistics on the official UN MDG website is only 15 percent for the interval 1990–2005.[61]

With thousands of indicators recommended but few measured well, the global health community needs to focus its efforts on improving measurement of a small set of priority areas, including aid effectiveness and health system inputs (resource tracking), outputs (effective coverage), and impact (mortality, causes of death, and morbidity). Priority indicators should be selected on the basis of public health significance and specific dimensions of measurability.[62]

The lack of a standard data exchange and quality assurance process for health metrics is also aggravating technical inefficiency. Setting such standards at the global level, specifically by the WHO, is necessary but not sufficient unless standards are developed to enhance the quality of data at the country level.

The introduction of information technology alone cannot solve the problem of interoperability. Applying a complex quality assurance framework can be impractical and even meaningless for a wide range of statistics. There is no compelling evidence that data quality assurance as advocated by the statistical community has contributed to the improvement of statistics. Independence and objectivity are important principles, but these need to be accompanied by incentives and capacity for compliance. Data exchange and quality assurance processes should aim to set a minimum standard while contributing to analytical capacity at the country level.

Lack of capacities and incentives to share data: In general, wider availability of datasets will result in different analyses of key public health issues. This is to be expected and encouraged. Genuine academic discourse about what can and cannot be reliably concluded from data will advance the evidence base for public policy derived from these data. Opening them up to wider use may also encourage methodological developments, which in turn may shed new light on key public health issues.

Despite technological advances, the progress toward open access and data sharing in the public domain is still slow in the area of global health,[63] with the exception of microdata from DHS and the Integrated Public-Use Microdata Series, both of which have sufficient technical, financial, and administrative support.

Data collected by many institutions and countries are still restricted to a limited number of investigators and collaborators for an indefinite period. Access is restricted for the following reasons: 1) to protect the ownership and intellectual property rights of the investigators, 2) to help offset the costs of maintaining data collection, 3) to retain confidentiality of individual participants, and 4) to minimize the risk of misinterpretation of data.[64]

These reasons may not be sufficient to restrict access to invaluable sources of data indefinitely, particularly when such obstacles can be overcome by appropriate and time-limited use of restrictions.

Precedents and protocols exist for addressing concerns around data access. For example, provision of wider access to data from clinical trials and DHS, after a certain period of exclusive rights to the investigators, can be adapted to other contexts. Data sharing may not be guaranteed through principles or codes alone but should be promoted by giving incentives, building capacity, and ensuring sustainability of data collection activities at the country level.[65]

Allocative inefficiency

On the one hand, the amount of data being collected in global health is rapidly increasing.[66] On the other, the political and financial attention now being paid to global health has not been matched by improved sources of information on the performance of health systems and new health programs.[67] This is partly due to the duplication and fragmentation of activities and partly due to the lack of sustainable investment in data collection at the country level.

Duplication among stakeholders: In every aspect of major functions in health information (data collection, monitoring and evaluation, and systematic assessment), there is a duplication of activities across and within agencies and institutions. In data collection platforms, the notable example of duplication and fragmentation is household surveys in countries.[68]

Survey modules in the traditional DHS and Multiple Indicator Cluster Surveys have been expanded substantially to cover a wide range of health and other issues. Single-disease surveys, such as for AIDS, malaria, tuberculosis, or tobacco, are becoming more common, often accompanied by biological and clinical data collection. While this approach ensures more data for the disease of interest, it imposes a substantial burden on countries and misses an opportunity to collect information on a broader range of health issues at relatively little marginal cost.

The World Health Survey (WHS) implemented by the WHO in 2002–2003 was an experiment in collecting a comprehensive set of information in a systematic and comparable way.[69] Such information is required to assess adult health and risk factors, effective coverage, and health system performance, and it was not available from existing data collection platforms. However, the WHO was not strategic enough to engage other stakeholders and enhance country capacity in order to leverage the real potential of the WHS.[70]

In theory, a single survey could include all priority health topics for which data are needed for decision making, from acute infectious to chronic noncommunicable diseases. Limiting factors are the complexity of the survey, the length of the interview, and funding challenges. However, technological advances have made it possible to carry out efficient sampling and include biomarkers in population-based surveys in developing countries. Joint surveys can also facilitate the integration of many existing efforts to strengthen countries' capacity and provide financial and technical incentives to collect, analyze, and share better quality data.

Lack of investment in standard data collection platforms: While demand for health information grows, primary data collection platforms in most developing countries are not improving. The technological potential for linking individual records to population health metrics has not yet had a major impact on primary data collection platforms in health systems in most developing countries.[71]

To increase the availability of high-quality primary data, local capacity for data collection and analysis needs to be strengthened, including making

investments in country data collection platforms, as well as changing the culture around the release of public data.

While there is some funding for making data available, there is much less to support the collection and production of the right data. It is only by supporting those who collect the data and involving them in analysis that the understanding of how better data can result in better health outcomes translates into a data collection incentive.

Another major deficiency is the lack of progress in civil registration.[72] More complete statistics on maternal and child mortality (MDGs 4 and 5); improved data on deaths from HIV/AIDS, tuberculosis, and malaria (MDG 6); and information on who dies and from what causes cannot be continuously generated at national and subnational levels with the methods currently at the disposal of the public health community in most developing countries. The absence of civil registration has other implications as well. When births are not registered, people are less likely to benefit from basic human rights—social, political, civic, or economic.

Global health and development agencies continue to skirt the challenge of confronting the lack of functional systems of civil registration. There is still no identifiable home for civil registration within the UN system, and there are few visible efforts on the part of development agencies to respond to countries' requests for assistance.[73] The absence of vital statistics in many developing countries has been described as both a symptom and a cause of underdevelopment.[74]

Lack of independent and contestable evaluations: In principle, results-based commitments require a relevant baseline indicator and should directly measure subsequent changes in this. This in turn requires a predefined monitoring and evaluation framework and benchmarking.[75] However, most current evaluations, such as the Global Fund's five-year impact evaluation, are done on an ad hoc basis with limited baseline data or based on a comparison of outcomes before and after a program was introduced for the same group.[76]

Such studies do not necessarily provide compelling evidence on what actually works and what does not, since there is no way to rule out the possibility that some other policy or event that coincided with the program caused the observed change in outcomes.[77]

Another major challenge in such studies includes the principle of country ownership and its inevitable conflict with independent and contestable evaluations.[78] For instance, the IHP+, while stressing the mutual accountability of

donors and developing countries, excludes the need for independent verification of national progress toward the health-related MDGs.[79]

Similarly, as health information has been instrumental in promoting disease-specific programs, there has been a debate about the potential conflict of interest if these disease-specific programs evaluate themselves.[80]

Developing a common framework and collaborative community

Since the publication of the *World Health Report 2000*, various comprehensive frameworks have been proposed to assess health systems.[81] Improved methods and better data have since increased the opportunities for evaluating health systems.[82]

As these efforts progress, a comprehensive and consistent framework on health systems will need to be adopted along with a limited set of valid and reliable indicators.[83]

Despite the large resources devoted to health worldwide, the focus of monitoring and evaluation has been on inputs (human resources, financial resources, etc.) rather than outputs and impact on health (e.g., effective coverage and health outcomes). Such an imbalance in monitoring and evaluation practices needs to be corrected in order to shed more light on the system-wide impact of various global health initiatives.

Another limitation of many previous attempts at strengthening health systems is that they were solely focused on direct delivery of services instead of all key functional elements of the health system (i.e., stewardship, resource generation, and financing). This refocus has provided us with an opportunity to provide valid evidence on how to effectively design and manage health systems, one that will require well-designed research.[84]

The global health community urgently needs to correct the two major sources of inefficiencies in data described above, which are limiting the potential of health information activities at both the global and country levels. At the same time, it is necessary to bring together work and evidence on health system assessment (See fig. 1). This requires a regional and global collaborative community and shared learning across systems that can benefit all countries.[85]

For example, effective coverage is considered to be a better indicator of a health system's ability to deliver services by combining needs, quality, access, and utilization of services.[86] However, this metric requires more information and analytical capacity than what is available in countries with limited resources and health information systems. One of the major objectives of the newly

established Latin American Health Observatory is to complement countries' capacities through regional collaboration among centers of excellence in health metrics and evaluation.

In the latest *World Health Report 2008*, the WHO also called for more structured and intensive inter-country collaboration around policy reviews for primary healthcare, which would yield better international comparative data on variations in the development of health systems, on models of good practice, and on the determinants of successful reforms.[87]

Sustaining health information activities at the country level

The current attention to health information is primarily driven by donor agencies and foundations rather than the recipient countries. Along with the lack of capacity and incentives to carry out decent evaluations, there is chronic underinvestment in each function of health information activities, particularly in the area of country data collection and compilation. A recent report by donor agencies estimated that approximately US$250 million will be required annually in external financing to support needed infrastructure and associated operating expenditures.[88]

An innovative funding mechanism is needed in order to build country capacity to monitor and evaluate health systems and to sustain such activities at the country level.[89] One option is collective action or an arrangement that mobilizes funds for data collection and sharing by coordinating commitments of various countries, donors, and agencies.[90]

As in the case of conditional cash transfer programs that transfer money to poor households on the condition that they comply with a set of requirements on health and educational services,[91] some conditionality on the use of pooled resources would be necessary to give incentives and improve capacities to collect better data at the country level. Such conditions would obligate the use of standard measurements, data sharing in the public domain, and local capacity building.

Policy Recommendations

The solution to the lack of accountability and transparency in global health is twofold: enhance existing efforts and create a new approach that directly addresses the lack of incentives to make these efforts representative.[92]

Given the G8's unique role in global health, together with its commitment to accountability and the increasingly prominent role of health metrics and evaluation in global health, we recommend that, through a collective and multi-stakeholder approach, the G8 should focus on correcting the two major inefficiencies in the current field of health metrics by undertaking the following:

1 Implement the G8's **Annual Review** to assess G8 countries' commitments to health systems and programs.
   1.1 Define a standard set of metrics and measurement strategies to monitor and evaluate aid effectiveness, health programs, and systems.
   1.2 Plan and assess future health-related activities by the G8 and partners using a common framework and metrics.
2 Establish a **Digital Commons** using a network of global and regional centers of excellence to improve access to—and the quality of—datasets and analyses at the country and global levels.
   2.1 Promote the principles of open access and data sharing in the public domain.
   2.2 Develop a global databank for common indicators (starting with the MDG targets, human resources, and resource tracking) and a data exchange and quality assurance mechanism.
   2.3 Establish a Cochrane-type process for global health monitoring to generate empirical evidence for health policy.
3 Pool resources for health metrics at the global and country levels to create the **Global Health Metrics Challenge**.
   3.1 Develop capacity and create an incentive structure for countries and data producers to collect, share, analyze, and interpret better quality data.
   3.2 Make health funding contingent upon third-party evaluation that is compliant with agreed principles, including developing a standard measurement strategy, putting data in the public domain, strengthening local capacity, and making appropriate use of information technologies.
   3.3 In countries with incomplete or inexistent civil registration, prioritize development of civil registration systems.
   3.4 Invest in a series of nationally representative household surveys for multiple diseases and risk factors.

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Task Force on Global Action for Health System Strengthening

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Appendices

Appendix 1

Background of the Working Group on Challenges in Global Health and Japan's Contributions

A working group on Challenges in Global Health and Japan's Contributions (informally referred to as the Takemi Working Group) was launched in September 2007 to look at global health in the context of human security—a pillar of Japan's foreign policy—as Japan was gearing up to host the Fourth Tokyo International Conference on African Development (TICAD IV) and the G8 Summit in Toyako, Hokkaido, in the spring and summer of 2008. The Japan Center for International Exchange (JCIE) facilitated the launching of this group and has served as secretariat.

At the G8 Hokkaido Toyako Summit, the world leaders proposed the Toyako G8 Common Framework for Action on Global Health, a framework for strengthening health systems around the world but particularly in developing countries. But, in order for the many stakeholders in global health to come together to create that common framework, the stakeholders in the global health field need to develop a shared understanding of what "health system" means and a shared agenda for building its architecture. Growing momentum among the major Japanese stakeholders in global health to begin to address these questions led to the formation of a task force on "Global Action for Health System Strengthening" under the Takemi Working Group in September 2008.

The first phase of the working group's activities focused on ensuring that global health and human security remained high on the agenda of the Toyako Summit. During that phase, the working group members conducted site visits to learn more about the challenges and that developing countries face in improving health and some of the ways they are dealing with those challenges. Through an intense process of research and dialogue, the working group members developed policy recommendations for the Japanese government as the summit host. The recommendations were discussed in seminars in Geneva, Washington DC, and New York and at a major conference in Tokyo. The working group

also talked extensively with the key people in the government ministries and prime minister's office who were developing the summit agenda.

Human security, which has grown to be a central pillar of Japan's foreign affairs, offered a useful framework for the working group's exploration of global health. As a demand-driven approach that attempts to address the interconnected challenges that threaten the lives, livelihoods, and dignity of individuals and communities around the world, human security seemed to be a natural framework for health issues, which go to the very core of human existence.

The working group, which is led by Keizo Takemi, former senior vice minister of health, labor, and welfare, is unique in Japan in that it takes a participatory approach to impacting the summit agenda. The working group itself representatives from the three relevant ministries (foreign affairs; health, labor, and welfare; and finance), government aid agencies, academia, and NGOs. Just bringing together representatives from the three ministries for substantive discussion is rare in Japan, let alone bringing representatives from other sectors in to take part in the dialogue on an equal footing. The further discussions with experts and practitioners from around the world made it even more of a global and inclusive dialogue.

The Toyako G8 Common Framework for Action on Global Health demonstrates that the G8 countries still take their commitments to improving the health of individuals and communities around the world seriously. The framework emphasized health system strengthening as a complement to the crucial disease-specific programs that are already saving countless lives. The Takemi Working Group chose to explore ways to implement the common framework by looking in depth at the three entry points for health system strengthening that were proposed at the summit: the health workforce, health system monitoring and evaluation, and health financing. The Takemi Work Group is also exploring the overall question of building integrated health systems that are able to respond to the challenges of providing primary healthcare while also tackling individual diseases, to achieve the health-related Millennium Development Goals, and ultimately to enhance the health and human security of people around the world. The papers presented in this volume are the result of the first stage of that exploration.

As a follow-up to the G8 Summit, this group has been reorganized to pursue four primary goals. The first goal is to identify concrete activities for health system strengthening based on the Toyako G8 Common Framework for Action on Global Health. A second goal is to ensure that the political momentum on health system strengthening that was achieved over the past year under the leadership of Japan is transformed into concrete action and to

ensure continuity in the process of moving toward the 2009 G8 Summit, to be hosted by Italy, and beyond. Third, this project aims to identify ways in which the many stakeholders in this field around the world can reach consensus on concrete actions to be taken for health system strengthening and develop partnerships for joint implementation. Finally, the project aims to explore ways in which the G8 itself can play a catalytic role in global health policy making. In all of its activities, the Takemi Working Group acts as a catalyst to synthesize existing initiatives for health system strengthening around the world within the framework of human security.

An international task force of 22 global health experts from various sectors from around the world was launched in September 2008 to further explore the three building blocks and offer policy recommendations, guided by an international advisory board comprising some of the world's top scholars and practitioners in this complex field. Three research teams were created within the task force, one for each of the entry points discussed above. Each research team was tasked with preparing concise, action-oriented policy papers, which were discussed at a workshop on October 4 and a major international conference in Tokyo on November 3–4 on Global Action for Health System Strengthening. Discussion at both events was enriched by the participation of many of the top experts in this field representing a diverse range of organizations and sectors. The product of this intense process of research and dialogue, contained in this report, was submitted to the Japanese government in January 2009, which in turn presented the paper and its recommendations to the Italian government.

JCIE and the Takemi Working Group are working in collaboration with the government of Japan (Ministries of Foreign Affairs; Health, Labour and Welfare; and Finance); the Bill & Melinda Gates Foundation; the Rockefeller Foundation; the World Health Organization; the World Bank; the Global Fund to Fight AIDS, Tuberculosis and Malaria; and other stakeholders.

Appendix 2

Working Group on "Challenges in Global Health and Japan's Contributions"

List of Members

Chair:	
Keizo Takemi	Research Fellow, Harvard School of Public Health; Senior Fellow, Japan Center for International Exchange (JCIE)
Director:	
Tadashi Yamamoto	President, JCIE
	(*alphabetical order*)
Kazushi Hashimoto	Executive Director, Japan Bank for International Cooperation
Masami Ishii	Executive Board Member, Japan Medical Association
Sumie Ishii	Managing Director and Executive Secretary, Japanese Organization for International Cooperation in Family Planning (JOICFP)
Masamine Jimba	Professor, Department of International Community Health, Graduate School of Medicine, University of Tokyo
Yasushi Katsuma	Professor, Waseda University Graduate School of Asia-Pacific Studies
Kiyoshi Kurokawa	Professor, National Graduate Institute for Policy Studies (GRIPS); Chairman, Health Policy Institute, Japan
Daikichi Monma	Deputy Director-General, International Bureau, Ministry of Finance
Taro Muraki	Assistant Minister for International Affairs, Ministry of Health, Labour and Welfare

Yasuhide Nakamura	Professor, Department of International Collaboration, Graduate School of Human Sciences, Osaka University
Yohei Sasakawa	Chairman, Nippon Foundation
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as of January 1, 2009

Appendix 3

Global Action for Health System Strengthening

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Appendix 4

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* Michael R. Reich and Keizo Takemi, "G8 and Strengthening of Health Systems: Follow-Up to the Toyako Summit." *Lancet* 2008; published online January 15. DOI:10.1016/S0140-6736-(08)61899-1.