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Global Health Governance at a Crossroads

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Abstract

This review takes stock of the global health governance (GHG) literature. We address the transition from international health governance (IHG) to global health governance, identify major actors, and explain some challenges and successes in GHG. We analyze the framing of health as national security, human security, human rights, and global public good, and the implications of these various frames. We also establish and examine from the literature GHG's major themes and issues, which include: 1) persistent GHG problems; 2) different approaches to tackling health challenges (vertical, horizontal, and diagonal); 3) health's multisectoral connections; 4) neoliberalism and the global economy; 5) the framing of health (e.g. as a security issue, as a foreign policy issue, as a human rights issue, and as a global public good); 6) global health inequalities; 7) local and country ownership and capacity; 8) international law in GHG; and 9) research gaps in GHG. We find that decades-old challenges in GHG persist and GHG needs a new way forward. A framework called shared health governance offers promise.

Introduction

To discern new directions for global health governance (GHG), it helps to know where GHG has been. This article thus provides a much-needed review of the GHG literature. In the first section we address the transition from international health governance to global health governance, analyze the role of major players — nation-states, United Nations (UN) agencies, multilateral organizations such as the World Bank (WB) and the World Trade Organization (WTO), the G8, non-governmental and civil society organizations (NGOs and CSOs), and public-private partnerships (PPPs) — and explain some accomplishments and challenges under GHG. We then analyze the various ways health has been framed in the global health literature: as national security, human security, human rights, and global public good, as well as the implications of these frames. The third section employs the literature to identify major issues in global health governance and reveals that, despite three decades of serious commitment and earnest effort, GHG remains confounded by the same problems that Charles Pannenberg listed in his 1979 work, *A New International Health Order*. Effective global health governance demands alternative solutions.

Search Strategy

We searched multiple databases including, but not restricted to, PubMed, Web of Science, Medline, Scopus, Academic Search Premiere, EconLit, Public Affairs Information Service (PAIS), International Bibliography of the Social Sciences (IBSS), Social Science Full Text, General Science Full Text, Humanities Full Text, ProQuest, Westlaw, and Lexis-Nexus

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Academic. Search terms included “global health governance,” “health governance,” “global health,” and “governance.” References cited in relevant books and articles identified further publications. We reviewed only materials published in English. Searches had no date restrictions.

Global Health Governance Systems and Actors

Transition from International to Global Health Governance

Until the 1990s, nation-states and multilateral organizations with state members governed international health. Health funding was mainly bilateral, flowing between donor and recipient governments. National ministries shouldered responsibility for health services delivery. The World Health Organization (WHO) coordinated worldwide efforts such as smallpox eradication with a limited set of partners; it also provided for international reporting and handling of disease outbreaks through the International Health Regulations (IHR). International health governance — also referred to as “the multilateral health regime”¹ and “horizontal germ governance”² — was relatively simple, with a small cast of actors and clearer lines of responsibility. Critics have charged that IHG served the interests of powerful Western states or “Great Powers.”³ Moreover, the need for coordination was lower. Rapid, globalized spread of emerging and re-emerging infectious diseases was not as salient a concern as it is now. Developed states with advanced medical and administrative capacities felt competent to control outbreaks and defend borders from diseases on their own, and did not rely on the IHR to handle outbreaks.⁴

Acceleration of globalization, increasing economic interdependence, and vast international movements of people and products ushered in the GHG era. Recognizing that infectious diseases emerging or re-emerging somewhere can have repercussions everywhere gave new urgency to addressing health on a global scale. GHG is dramatically more complex than IHG, with a plethora of new actors and the accompanying deluge of uncoordinated activities, and only recently has a definition of “global health” been attempted.⁵ Characterizations like “post-Westphalian,”⁶ “nodal,”⁷ “open-source anarchy,”⁸ and the application of complexity frameworks to globalization and global health⁹ point to the involvement of non-state actors and the non-hierarchical nature of GHG activities and influence. New actors bring new resources and ideas, but new actors and new forms of organization — e.g., networks and partnerships — also “blur[] lines of responsibility.”¹⁰

A lack of clear structure is a conspicuous feature of GHG. The roles played by nation-states, UN organizations, international organizations, NGOs, CSOs, and PPPs are not neatly delineated. Each serves multiple functions: as sources of funding, as originators of initiatives, and as implementers, monitors, and evaluators (Figure 1). The US President’s Emergency Plan for AIDS Relief (PEPFAR), for example, is initiated and funded by the United States, with resources channeled to NGOs that propose and implement programs abroad. Another example is the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund or GFATM), which is funded by national governments, philanthropic foundations, NGOs, and corporate initiatives. Global Fund resources are disbursed to national governments, which design national plans with the input of donors and CSOs, and which may implement those plans with their assistance. Observers assert that there is “no architecture of global health,”¹¹ though some characterize GHG as three concentric circles of actors: WB and WHO at the center; countries, the International Monetary Fund (IMF) and other UN organizations (UNOs) in the next ring; and NGOs, multi-national corporations (MNCs), epistemic communities, and individuals in the outermost ring.¹² Scholars may disagree on the structural description, but the operational chaos is indisputable. Competition among actors and priorities runs rampant, funding and initiatives often bypass governments, which complicates national planning, and donor requirements (e.g., for accountability) often

lead to duplication and waste. Looking at its separate actors in turn might provide a clearer view of GHG (Table 1). Though non-state actors sometimes seem to be GHG's defining feature, traditional IHG actors prove difficult to displace and remain dominant in health governance. NGOs and PPPs earn praise for their flexibility, innovation, cost-effectiveness, and greater democratic accountability, yet experience demonstrates that these actors have problems of their own and may add new complications even as they solve others.

Nation-States

The bulk of GHG literature affirms the continuing primacy and ultimate responsibility of nation-states in health governance, national and global.¹³ Bilateral funding still constitutes the greatest single source of global health assistance,¹⁴ and national resources (public and private), even in low- and middle-income countries, still fund most national health spending.¹⁵ Disease surveillance and control, despite their global implications, depend on the capacity and decisions of national governments (e.g., the attempted suppression of news of the Severe Acute Respiratory Syndrome (SARS) outbreak by China in 2003 and of the plague outbreak by India in 1994; the handling of H1N1 by China and Mexico in 2005). States continue to be vital because they decide what is negotiated internationally and implemented domestically,¹⁶ and because member states fund and support organizations like WHO. Rich and powerful states can further affect health by using measures like bilateral trade agreements to strengthen intellectual property rights and limit drug access through measures like TRIPS (trade-related aspects of intellectual property rights) -Plus and their defense of pharmaceutical, tobacco, and food industry interests. Powerful Western states also set priorities in WHO and define the upper limits of acceptable action; WHO's surveillance authority, for example, has been characterized as a function of what Western states allow.¹⁷ The globalization of public health supposedly erodes state boundaries' significance and the nation-state's importance (though the Westphalian model is still relevant).¹⁸ Episodes like SARS and H1N1, however, show that an "elusive global system" does not simply replace the international system, as public officials who face disease outbreaks revert to quarantine and other sequestration measures.¹⁹ Some observers suggest that GHG actually promotes "re-territorialization."²⁰

States are relevant in other ways. Domestically, public sector or mixed public-private health systems tend to outperform strictly private sector ones in achieving equity,²¹ supporting a major role for the nation-state. States have also shown themselves able to lead successful public health efforts, such as the trachoma control campaign in Morocco, folic acid fortification of flour for neural tube defect prevention in Chile, and the HIV/AIDS programs in Brazil and Thailand.²²

Powerful states are important because global policies in any domain will not advance significantly without these industrialized states' strong backing. Some scholars believe that the U.S. and the G8 countries have tremendous, even hegemonic clout.²³ Does U.S. hegemony drive the risk factors behind infectious disease threats? Is it thus obligated to address those risks?²⁴ Should the U.S. use its global influence to establish a global health agreement?²⁵ Is the G8 the logical emerging global health governor?²⁶ Rich and powerful states like the U.S. and those of the European Union (E.U.) can affect health by using measures like bilateral trade agreements to strengthen IP rights and limit drug access. Their defense of other industry interests — especially those of the tobacco industry — also undermines global efforts to improve health. Emerging countries, most prominently Brazil, Russia, India, and China (BRICs), are playing a larger role in GHG, as sources of financial and technical assistance, positive and negative examples of health system development, and medical services and supplies, including generic drugs. These countries are also taking a lead in challenging trade and intellectual property rules that hinder access to drugs, and are

more generally giving greater voice to the concerns of the developing world in the global arena.²⁷

World Health Organization (WHO) and Other United Nations (UN) Organizations

The rise of non-state actors and major global health initiatives driven by public-private partnerships, foundations, G8, and other non-UN/WHO entities has diminished the importance of WHO and health-related UN organizations in GHG.²⁸ Disillusionment with WHO inefficiency and ineffectiveness has arguably spurred engagement of non-state actors.²⁹ Initiatives such as the Global Fund and the Joint United Nations Programme on HIV/AIDS (UNAIDS), which took away purview over major diseases, appear to challenge WHO.³⁰ The UN and WHO are beset with criticisms. The UN lacks a “master plan” for health, leading to competition and duplication among UN agencies.³¹ WHO is vulnerable to bilateral influence and political pressure, hindering its role as “global health conscience.”³² It has no enforcement powers. Critics charge that it is too focused on technical matters and vertical programs, too bureaucratic, and insufficiently engaged with civil society.³³ Its conflicting roles as advocate, advisor, and evaluator further limit its effectiveness.³⁴ Its partnership with the private sector might undermine its ability to set norms and standards.³⁵ In the past, it had been unable — and it continues to be reluctant — to use the power of international law.³⁶

For all of WHO’s flaws, the global health community continues to look to it as the leading global health governor, in the absence of a real alternative. Scholars deem WHO “unique” in its position to coordinate disease surveillance,³⁷ and identify it as the “only” authority that combines the necessary “institutional mandate, legal authority, and public health expertise.”³⁸ And while WHO’s budgetary weaknesses and dependence on powerful member states are clear,³⁹ the prevalent proposal is to strengthen it financially and politically, by giving WHO enforcement powers and a stronger mandate, for example, rather than urging alternative institutions.⁴⁰ Globalization for some points to a greater role for multilateral UN organizations and specifically the WHO, as they are more neutral forums than bilateral arrangements.⁴¹

World Trade Organization, World Bank, G8, G20

Other multilateral organizations, not traditionally health-related, have gained importance in GHG. The WTO’s role has expanded as its trade regime raises issues for access to drugs and health services and for non-communicable diseases (through, for example, major risk factors such as tobacco, food safety, and unhealthy diets). By one account, it is “becoming the single most important international institution in the architecture of global health governance,”⁴² with the power to enforce compliance with WTO rules and to limit sovereign choice in public health policies even absent the authority and capacity to establish food standards and arbitrate technical regulations.

The World Bank has come to recognize the role of health in development, and is emphasizing health system strengthening and financing, technical and policy advising.⁴³ Its superior resources have allowed it to displace the WHO as the main multilateral agenda-setter in health since the 1990s, especially in poor countries.⁴⁴ Yet the displacement is incomplete: the World Bank has been called upon to support WHO functions,⁴⁵ offer effective leadership,⁴⁶ and to collaborate with WHO in mitigating freer trade’s negative health effects.⁴⁷ Critics charge it with undemocratic and pro-privatization policies,⁴⁸ closed and inefficient management,⁴⁹ and focus on performance rather than outcome evaluation (with recent emphasis on impact evaluation).⁵⁰

The G8 has been discussed as a potential global health governor,⁵¹ or one “of last resort,”⁵² and the emerging center of GHG.⁵³ Its small membership, public-private collaborations,⁵⁴ task-orientation, common values, and a degree of intra-group accountability arguably make the G8 more effective than other global institutions.⁵⁵ Essentially an informal network, the G8 may lack the capacity to be a “global health apex institution,” but the flexibility of its structure can be an asset.⁵⁶ Free from the regulations constraining WHO’s interactions with NGOs and the private sector, the G8 is more flexible in its actions and can choose to sidestep extant global health bureaucracies. Its visibility and access to national financial and human resources also render it effective in highlighting global problems and raising money for specific activities.⁵⁷ The Global Fund, for example, was formed under G8 auspices. Such a select group of nation-states, however, may prioritize their own interests over those of global health, as shown by G8’s inaction regarding tobacco⁵⁸ and its less-than-stellar efforts toward redistribution.⁵⁹

Some argue that the G20, an expanded version of the G8, has more advantages: the G20 is an inter-government group based on national governments with authority and accountability to their populations; the group accounts for more than 60 percent of the world’s population; it consists primarily of finance ministers with more direct authority over funding, and is a “broadly representative leaders-level grouping.”⁶⁰ However, the G20 made little if any mention of the poverty and suffering resulting from the world financial meltdown in their 2009 summit, and some see the G20 as unlikely to deliver “fundamental” reforms.⁶¹

Non-Governmental Organizations (NGOs) and Civil Society Organizations (CSOs)

NGOs potentially outperform governments as service providers due to their organizational flexibility, cost-effectiveness, and access to communities, especially in remote and difficult areas.⁶² Many “proven successes in global health,”⁶³ for example, stem from work of and with NGOs (e.g. Task Force for Child Survival; Bangladesh Rural Advancement Committee; Carter Center; Clark, Gates and Hassan II Foundations; Helen Keller International; International Trachoma Initiative (ITI); etc.) and most PEPFAR funding, for example, is channeled to NGOs instead of governments. Participation by NGOs and CSOs can also enhance democracy, giving voice to and empowering aid recipients,⁶⁴ particularly those with few resources, by helping them understand issues and define positions in negotiations. NGOs get credit for making drug access a high profile issue during the WTO Doha Round⁶⁵ and for influencing the Framework Convention on Tobacco Control (FCTC) negotiations.⁶⁶ Calls for broader inclusion of NGOs and civil society are routine. But time and experience have shown that NGOs have their own pathologies. The survival imperative drives NGOs to compete amongst themselves for donor funding, turf, and attention, with adverse effects on program design, implementation, and inter-organization coordination.⁶⁷ Ideology can undercut NGO effectiveness, as when religious beliefs obstruct condom use and promotion,⁶⁸ though real needs “on the ground” can often overcome ideology in the provision of necessary interventions.⁶⁹ A more nuanced view of NGOs evolved with the recognition that they are funded not just by “civil society,” but also by states and businesses and are therefore not divorced from those interests.⁷⁰ Perceptions of NGO and CSO legitimacy became more critical as observers realized that, though they often purport to represent the public interest, these entities are not elected and it is unclear whom they represent or to whom they are accountable. Moreover, reliance on NGO/CSO service delivery bypasses and potentially undermines elected governments and could damage public sector organizations as higher NGO salaries cause health-worker brain drain.⁷¹ Some question altogether the broader notion of a “global civil society.”⁷²

Public-Private Partnerships

Many have commended the emergence of PPPs as a means to bring together civil society, and the public and private sectors to correct market failures. PPPs promise private sector managerial skills, expansive financial and in-kind resources, innovation, and efficiency.⁷³ They may also be inescapable in some contexts: in drug research and development, for example, the private sector “own[s] the ball.”⁷⁴ The prominently successful PPPs, such as Merck’s ivermectin donation and Pfizer’s trachoma programs, are pharmaceutical in nature. Studies have found that most such public health partnerships do speed disease reduction at a lower cost,⁷⁵ and target the most burdensome diseases and the most needy countries relatively well.⁷⁶

But reservations abound. Some argue that in PPPs the public sector carries the risks while the private sector reaps the benefits, and that PPPs are basically public relations and market expansion gambits for the private sector.⁷⁷ Because specific companies and industries participate in PPPs, these partnerships tend to favor technical approaches and vertical programs with their attendant problems (see below).⁷⁸ Nor are they particularly pro-poor, as impoverished countries with big populations, or countries with “unpopular” governments or bad infrastructure may tend to be excluded.⁷⁹ PPPs are often opaque and evade accountability due to a lack of procedures to hold them responsible.⁸⁰ Northern participants tend to dominate PPPs, with under-representation from the South,⁸¹ though that situation has begun to improve.⁸² PPPs may also have worrisome effects on governments and multilateral organizations, by undermining the public sector’s normative focus and compromising the values of international organizations and thus their moral authority to set norms and standards.⁸³

Global Health Successes

One of the most salient global health successes was the global eradication of smallpox in the 1970s, under IHG. Coordinated by WHO, member states implemented eradication programs with the help of WHO and donor governments such as the U.S., the U.S.S.R., and Sweden, as well as the invention of the bifurcated needle by Wyeth Laboratories. Smallpox was declared eradicated in 1980, 13 years after the commencement of the program in 1967.⁸⁴ Despite the profusion of new actors and the absence of clear governance architecture under GHG, prominent examples of global health successes show that these operational difficulties can be overcome. National governments, international organizations, NGOs, the private sector, and individuals have managed fruitful collaborations (Table 2). We will mention just a few here. One well-known example is the African Programme for Onchocerciasis (APOC), started in 1995 following the success of the West African Onchocerciasis Control Program (OCP) to eliminate onchocerciasis in central, southern, and eastern Africa. It continues the collaboration between WHO, UNDP, FAO, World Bank, and Merck’s Mectizan Donation Program under OCP, and further includes the governments of 19 African countries, 27 donor governments, over 30 NGOs, and more than 80,000 rural African communities that locally distribute the medication. Polio and guinea worm eradication and lymphatic filariasis elimination campaigns are additional instances of successful global health efforts that involve large numbers of national, international, non-profit and corporate actors, including the WHO, PAHO, UNICEF, U.S. Centers for Disease Control and Prevention (CDC), the Gates Foundation, the Carter Center, Merck, and DuPont.⁸⁵ Through regional measles elimination campaigns undertaken by national governments and entities such as WHO, UNICEF, U.S. CDC, and the International Federation of Red Cross and Red Crescent Societies, dramatic global declines in measles mortality have also been achieved since the year 2000.⁸⁶

Another example is the PARTNERS project on multi-drug resistant tuberculosis, a collaboration among Partners in Health, Socios en Salud, U.S. CDC, WHO, the Task Force for Child Survival and Development, and national governments. PARTNERS demonstrated the feasibility of scaling up MDR-TB treatment in resource-poor settings, and resulted in the integration of MDR-TB treatment into WHO TB policy.⁸⁷

Different types of actors can offer different elements necessary for good global health performance, such as adequate and sustained funding, political leadership and commitment, technical consensus and innovation, and managerial and logistical expertise.⁸⁸ The obstacles of competing agendas, conflicting requirements, and turf disputes can be surmounted if partners with aligned interests and complementary skills can develop mutual trust, agree on goals, measurements, and strategies, and operate within an appropriate collaborative structure.⁸⁹ International cooperation may also be facilitated by third parties, such as the Carter Center partnership with the Dominican Republic and Haiti to eliminate malaria and lymphatic filariasis, part of the greater efforts of the Carter Center's International Task Force for Diseases Eradication.⁹⁰

Widely-acknowledged global health successes are notable partly because they are still relatively few in number. Meeting the challenges of cooperation under GHG remains arduous in practice. Though the Millennium Development Goals (MDGs) offer a basis for cooperation,⁹¹ there is no universally agreed-upon coordinating body or unified vision for global health.⁹²

Framing of Health

That there is no consensus vision for global health is reflected in the different frames applied to health in the GHG literature. Health policy will differ depending on whether health is framed as a matter of security and foreign policy, human rights, or a global public good.⁹³ These frames are not mutually exclusive, but do have distinct implications.

Health as Security and Foreign Policy

Health framed as a traditional security issue emphasizes the defense of borders against infectious diseases and bioweapons with little consideration for non-communicable diseases and social determinants of health.⁹⁴ The policy focus is on disease surveillance and outbreak control, though HIV's demographic impact in high prevalence countries is also beginning to raise concerns about regional and economic stability.⁹⁵ The desire of developed (mostly Western) states to protect their trading interests and their borders from contamination drives action.⁹⁶ Given this motivation, even some infectious diseases receive little attention because they are geographically concentrated away from developed countries, and are not perceived as important threats.⁹⁷ Some describe WHO's IHR and Global Outbreak Alert and Response Network (GOARN) as biased toward the protection of Western states⁹⁸ — the revised IHR's definition of public health emergencies of international concern, for example, focuses on bioterror agents as defined by the U.S. CDC rather than diseases causing the most fatalities in the past decade.⁹⁹ This bias could undermine WHO's moral authority to elicit cooperation from developing states, a problematic development because the effectiveness of surveillance and response depends largely on poorer states' ability to detect and verify outbreaks.¹⁰⁰ Such perceived bias reduces poorer states' willingness to cooperate and all states' motivation to develop standardized procedures to address infectious agents at their origin.¹⁰¹ The incentives are few as is — nation-states fear the loss of prestige in revealing disease outbreaks associated with underdevelopment, as well as diminished trade and tourism.¹⁰² Reporting outbreaks could also spur the stockpiling of drugs by wealthy nations, potentially at the expense of access for poorer countries.¹⁰³

Treating health as a security or foreign policy issue further strengthens the state's role in international health¹⁰⁴ and the element of state sovereignty, possibly influencing the manner and extent to which states are engaged in global health. A popular example of this interplay is China. China sees health as part of foreign policy, and is thus more actively engaged in international health. But a realist agenda drives this engagement, which both guides and hinders China's role.¹⁰⁵ Some assert that neorealist and neoliberal foreign policy approaches make health matter only as a security or foreign policy issue, because they do not share the humanitarian concerns of public health.¹⁰⁶ A security approach may also have the effect of shifting global health response from civil society toward intelligence and military entities with less concern for civil liberties and democratic participation. On the other hand, framing health as a security issue does have the advantage of increasing attention and resources on both domestic and international levels.¹⁰⁷ The relative emphasis between health and foreign policy may also be adjusted. For example, seven countries declared their intention to view foreign policy through "a health lens," to judge policies at least partly by their health implications; the focus remains on infectious diseases, but this alters the traditional practice of judging health policy by its foreign policy implications.¹⁰⁸

Health as Human Security

In contrast to traditional security, advocates have proposed treating health as a matter of "human security."¹⁰⁹ Human security aims to protect individuals' freedom from fear and freedom from want, and to ensure physical and economic security. It is a "people-centered" — as opposed to state-centered — concept that encompasses economic, food, health, environmental, personal, community (cultural), and political security.¹¹⁰ Health is considered by some as being at the center of human security because it is universally valued and connects the other components.¹¹¹ This viewpoint essentially shifts focus to issues neglected under the traditional security framing, such as the social and economic determinants of health and non-communicable diseases. Some advocate "human security" as a way to understand changes that are generating novel or escalated threats, and to analyze "what security is provided and for whom."¹¹² GHG should address "the structural causes of human fear and want as fundamental sources of insecurity."¹¹³ Others espousing this view observe that HIV is a high human security priority.¹¹⁴ The concept of human security has been defined and operationalized in various ways,¹¹⁵ but the lack of clear agreement on what it entails draws charges of vagueness and excessive expansiveness.¹¹⁶ There is also the notion of "health security," but its definition is also inconsistent across users and agencies, hampering its usefulness as a basis of cooperation.¹¹⁷

Health as a Human Right

Health as a human right moves health provision from a discretionary charitable activity to a human entitlement or global citizenship right, adding moral force to actions and appeals to help the poor.¹¹⁸ Advancing health as a human right is consistent with advancing other human rights, such as civil and political rights imbued in democracy (believed to have positive influence on health), as well as social and economic rights.¹¹⁹ Although the impact of human rights on health awaits empirical evaluation, the effect is expected to be beneficial.¹²⁰ International human rights law has developed to promote the pursuit of global health.¹²¹ There is much discussion about the swings between the traditional security/foreign policy approach and the human rights perspective in global health.¹²² Some international health policies, the IHR for instance, adopt principles from both frameworks,¹²³ and in some countries, India for example, the expanding language of rights is creating popular demand for services and holding the state to account.¹²⁴

Health as a Global Public Good

The framing of health as “commons” or as a “global public good” conceives of health as something beyond the jurisdiction of any one country and of interest to two or more countries or their populations.¹²⁵ Public goods are non-excludable and non-rival—people cannot be excluded from consuming such goods, nor does one person’s consumption of such goods preclude consumption by another. Examples of global public goods for health include communicable disease control, disease eradication, disease surveillance, the dissemination of research and best practices, and health-related rules and standards.¹²⁶ Because the consumption of public goods is non-excludable, there is little commercial incentive for their production. Though national governments may take steps to provide public goods nationally, there is no global government to provide or pay for global public goods.¹²⁷ A focus of the global public good perspective, then, is how to ensure collective action for health at the international level.¹²⁸ The emphasis of this approach is that of mutual benefit among countries rich and poor, rather than that of aid from the rich to the poor.¹²⁹ This potentially raises social justice and equity concerns, since the health interests of the rich and poor are often different, and the rich are more able to act on their own interests.¹³⁰ The concept of global public goods itself provides no guidance as to how priority should be assigned to global health issues,¹³¹ nor does it set forth how provision is to be implemented.¹³² There is, however, “strong agreement” that provision of global public goods must start at the national level.¹³³

Depending on how health is framed, the major issues in GHG identified from the literature may be more or less relevant. For example, inequity in health may be more important in a human rights frame than in a national security/foreign policy frame, whereas the connection between trade and health may take on greater significance in the foreign policy frame.

Major Issues and Challenges in Global Health Governance

Persistence of Global Health Governance’s Key Problems

The most striking theme in the GHG literature is the persistence of GHG’s key problems. With the exception of more recent work on proven successes in global health, which pertain primarily to disease-specific programs, the global concerns in health governance Pannenberg listed in 1979 still persist today.¹³⁴ In 1979, international and global health governance vexations included:

- Lack of coordination between donor governments and NGOs, and recipient countries;
- Confusion of norms and activities due to different ideas regarding health rights and obligations;
- Lack of coordination between WHO, WB, other UNOs and multilateral organizations;
- Lack of national health plans in recipient countries, or plans that do not provide for donor coordination;
- Donor neglect of recurrent expenditures;
- Donors’ short-term orientation and lack of middle- and long-term commitments;
- Health aid tied to foreign policies of donor or recipient, or to purchases of supplies from donor countries; and
- Criteria of “self-reliance” and past performance, channeling aid away from the most needy countries.

Today one, of the most salient issues remains the lack of coordination among donors and between donors and recipient governments; GHG's proliferation of actors and initiatives has exacerbated this problem.¹³⁵ Many donors retain their short-term orientation,¹³⁶ and the criteria of "sustainability" and accountability as well as performance-based evaluation persist in distorting program design, implementation, and choice of funding recipients.¹³⁷ Economic and strategic interests of donors continue to determine bilateral health aid.¹³⁸ Enumerations of these problems are routine, but GHG solutions remain elusive after 30 years.

Approaches to Tackling Health Challenges

Main approaches to health challenges are vertical and horizontal, trending into calls for a diagonal third way. Vertical programs or selective primary health care are disease-specific, while horizontal programs or comprehensive primary health care entail broad-based development and strengthening of health systems without particular specification of health priorities. WHO's Health for All initiative announced in Alma Ata in 1978 is an example of the horizontal approach, while current global health initiatives tend to be vertical.

Disease-specific programs show results; their performance and outcomes are more easily measured and assessed. The wider systemic scope of horizontal strategies, on the other hand, means that results take longer to manifest, are harder to measure, and efforts are more likely to become unmanageable.¹³⁹ Donors therefore tend to gravitate toward vertical programs. Vertical programs have produced many of the "proven successes in global health" (e.g., smallpox eradication; onchocerciasis, trachoma, TB, measles, and Chagas disease control; polio eradication; guinea worm reduction; etc.) through international collaboration (e.g., among UNICEF, U.S. CDC, Carter Center, and WHO on guinea worm and among numerous partners through the Onchocerciasis Control Program (OCP)) and demonstrate "what works" in global health programming.¹⁴⁰ But problems with the vertical approach are well recognized. Vertical programs that do not fall within the proven successes category, for example, have been criticized for exhibiting and exacerbating many of the enduring health governance challenges mentioned earlier, such as poor coordination, duplication and waste, short-term funding, unsustainability, and inadequate performance assessment, calling into question the accuracy of results reporting. Vertical programs may also distort national health priorities, and intense focus on particular diseases creates a hierarchy of diseases, in which certain ailments — like HIV/AIDS — receive extraordinary attention while other conditions are ignored (Table 3).¹⁴¹ Health staff and resources are diverted from normal functions. Nor does the vertical approach address the broader socio-economic determinants of health or social equity. Some criticize vertical programs for being technocratic, exhibiting urban bias and targeting particular populations over others,¹⁴² and overlooking investments in the broader health system that are prerequisites for vertical strategies' success¹⁴³; some argue they reduce states' policy autonomy.¹⁴⁴ Still, some believe that in countries with weak health systems, a logical first step is to direct funding toward disease-specific programs, which can foster health infrastructure as a second stage;¹⁴⁵ successful programs also offer important examples and lessons for international collaboration in global health.

Nevertheless, a consensus is growing around the need for more action on health systems strengthening, which is more and more considered key to improving health. Systems failings are impeding the achievement of MDGs¹⁴⁶ and vertical program objectives. Scholars increasingly argue for strong commitment, funding, and technical support for building health infrastructure, ensuring access, and addressing inadequacies in human resources and data systems.¹⁴⁷ The World Bank has directed its attention toward health system strengthening.¹⁴⁸ Observers believe WHO's horizontal policy to develop health systems driven by primary health care is essential for meeting developing country challenges.¹⁴⁹ However, the potential of the horizontal approach is "largely unexploited,"¹⁵⁰ though it

showed good results in the 1980s in Mozambique, Cuba, and Nicaragua,¹⁵¹ strategies for building a strong health system vary and are undecided.¹⁵²

More recent is advocacy for a diagonal approach, also known as a “matrix approach.” It combines vertical and horizontal elements¹⁵³ and allocates resources to strengthen health system components relevant to specific diseases burdening a given country.¹⁵⁴ These approaches seek to use explicit intervention priorities (vertical) to drive health system improvement (horizontal). GAVI-HSS, a health systems strengthening initiative started by the Global Alliance for Vaccines and Immunisations in 2006, is an example of a diagonal approach. GAVI-HSS allows the health ministry of each applicant country to define health system constraints, and aims to improve immunization through strengthening health systems.¹⁵⁵ A study of the first four rounds of applications supports the concept of developing an HSS approach starting with specific programs.¹⁵⁶

Multisectoral Connections with Health

Increasingly, scholars understand health as a multisectoral issue that does not exist in isolation, especially in a globalizing world.¹⁵⁷ Greater intersectoral coordination¹⁵⁸ to better integrate health into broader policymaking is essential to ensure coherent policies that protect health interests.¹⁵⁹ The connection between the health and trade sectors is particularly challenging in this regard. Researchers recognize that economic globalization and trade liberalization are driving forces for a globalized health crisis, with implications for issues like non-communicable diseases and access to drugs and health services;¹⁶⁰ yet globalization and trade also link to economic growth, which is necessary for health systems development and sustainability. These are widely discussed topics, especially in the WTO context.

Trade and trade rules affect drug access through incentives for research and development, pricing, and intellectual property (IP) rules. Pharmaceutical research and development (R&D) is concentrated in developed country markets and on conditions affecting developed country populations, because poor countries and populations do not have the spending power to make the immense time and investment for drug R&D worthwhile for private industry. Tropical diseases are neglected because profit-driven R&D is unlikely to recoup investments in developing country markets.¹⁶¹ The Drugs for Neglected Diseases Initiative (DNDi) (to deliver 6–8 drugs by 2014) and Orphan Drug Acts in the U.S., Japan and the E.U. attempt to address this.¹⁶²

Drug pricing, if too high, limits access,¹⁶³ and IP rules play a major part in determining prices. IP protection can lead to huge price differences between countries where drugs are patented and countries where generic versions are available (Table 4).¹⁶⁴ International price discrimination, however, can be positive if pricing in rich countries subsidizes lower prices in poor ones,¹⁶⁵ and instruments such as parallel importing and compulsory licenses (allowing manufacturing or importing of generic versions) can mitigate patent-related access problems. But developing countries’ attempts to use these instruments often encounter opposition from pharmaceutical interests in rich countries. Some of these opposing actions fail (e.g., the 42-firm law suit against South Africa and threatened sanctions against Brazil), but others caused countries and companies to surrender efforts to make or import affordable generics.¹⁶⁶ Are drug patents the real problem for access to essential medicines? Some note that most drugs considered “essential” by WHO are not under patent,¹⁶⁷ that drug companies often do not apply for patents even where they could, and that in practice, patents are not a serious obstacle to access.¹⁶⁸ This view maintains that fixing TRIPS would not solve the access situation in developing countries, because the fundamental problem—that individual nation-states have not established a right to essential medicines—remains. Others find this claim biased¹⁶⁹ and inapplicable to HIV/AIDS drugs.¹⁷⁰

The General Agreement on Trade in Services (GATS) and its implications for developing countries' health services and systems are another nexus where trade and health meet. GATS aims to liberalize trade in health services, encouraging privatization and market competition, with unclear ramifications for health and health care. Some charge that GATS is a means for multinational service corporations to increase their business prospects,¹⁷¹ while others worry that privatization of health services would be costly, generate inequitable two-tiered systems, widen health gaps, and obstruct universal access.¹⁷² Another concern is that "progressive liberalization" under GATS would only mean increasing privatization of health systems and health care provision, which could hinder development of public health services and limit future government options in health system design and reform.¹⁷³ The brain drain problem may also worsen domestically and internationally, as workers move from public to private sectors, and from developing to developed countries.¹⁷⁴

Non-communicable diseases (NCDs) are receiving more attention now that the globalization of unhealthy diets and sedentary lifestyles is making them both more common and more deadly,¹⁷⁵ a threat exacerbated by tobacco's spread into developing markets¹⁷⁶ and tobacco's importance in numerous developing economies (e.g., China, Turkey, Zimbabwe).¹⁷⁷ Observers urge action, particularly through multisectoral partnerships; both the environment and individual behaviors affect NCDs, which therefore involve too many sectors for any one agency to manage.¹⁷⁸ Philanthropists such as Bill Gates and Michael Bloomberg are involved in global efforts to mitigate the effects of tobacco.¹⁷⁹

Trade impacts health profoundly, but health holds the weaker position in the health-trade nexus. Trade's formalized governance as opposed to the "unstructured plurality" in health is one explanation for this uneven match.¹⁸⁰ Countries believe that their economic well-being depends on participating in an effective international trade system, and are therefore willing to join the WTO, where membership comes with many legal, enforceable obligations. WHO, in contrast, lacks enforcement power and bases its authority mainly on technical expertise, and must contend with more diverse perspectives with minimal reciprocal obligations. WHO has limited access to WTO proceedings; business representatives outnumber health representatives on trade commissions. The deficiency in systematic monitoring and assessment of trade policy from a public health perspective and the absence of a unified GHG vision undermine and complicate health's position vis-a-vis trade.¹⁸¹ Greater coordination between health and trade to achieve policy coherence is desired.¹⁸² WHO could help countries understand, negotiate and draft trade laws.¹⁸³ It could mitigate the effects of global brands marketing, regulate tobacco, and monitor large-scale agricultural production.¹⁸⁴ Some scholars propose direct transnational corporation (TNC) regulation to protect health from the abuses of international commerce.¹⁸⁵

Sectors other than trade also affect health. Health ties into development more generally, particularly extreme poverty and other development indicators.¹⁸⁶ WHO has called for incorporating health into Poverty Reduction Strategy Papers (PRSPs) and sector-wide approaches,¹⁸⁷ and the World Bank considers health a major component of its global economic role.¹⁸⁸ Yet large-scale development projects are often planned without adequately assessing effects on health.¹⁸⁹ Greater attention to the implications for human health from animal health,¹⁹⁰ agriculture,¹⁹¹ and the environment¹⁹² is important.

Neoliberalism

The health-trade nexus may be a particularly prominent manifestation of a larger theme playing out in the globalization process: neoliberalism. Neoliberalism connotes global economic liberalization, privatization, market competition, and the pursuit of efficiency. Neoliberal economic globalization and the accompanying migration behavior increase risks from infectious disease outbreaks; economic growth, foreign direct investments, and

urbanization significantly affect NCD mortality rates.¹⁹³ Although trade openness has been found to be associated with economic growth and poverty reduction, it produces winners and losers. Liberalization does not necessarily support poverty-oriented health care, nor does public health necessarily improve under the devolution of health responsibilities to the individual level when health's determinants are also national and global.¹⁹⁴ Observers believe that international economic and financial organizations such as WTO, IMF, and the World Bank push a neoliberal agenda, favoring capital and overriding the will of national democratic institutions.¹⁹⁵ Some argue that debt repayment schemes, structural adjustment programs (SAPs), and PRSPs have little regard for the economic and social costs of adjustment,¹⁹⁶ especially to the health sector.¹⁹⁷ They charge that policies to reduce government health expenditure, such as user fees and spending cuts¹⁹⁸ undermine health care. Indeed, some propose exempting health spending from international financial institution (IFI)-stipulated fiscal restraints.¹⁹⁹ Neoliberal globalization, some argue, "simultaneously maximizes the need for social intervention," and minimizes the political and strategic options available.²⁰⁰ Some further believe that the neoliberal pursuit of consumption and efficiency comes at the expense of equality.²⁰¹ The neoliberal orientation is contrasted with a social-democratic one.²⁰² On the other hand, a review of SAPs' consequences for health found that empirical studies tend to present both positive and negative effects.²⁰³

Health Inequalities

Health inequality is a widely-recognized problem (Fig. 2).²⁰⁴ In 2008, a WHO Commission on the Social Determinants of Health report named health equity a central goal in global health.²⁰⁵ This is not a new call, since WHO has already advocated reduction of economic and social inequalities and pushed for universal access to primary health care.²⁰⁶ Health equity is not an unquestioned priority, however.²⁰⁷ Some advocate providing some minimal level of opportunity and addressing basic survival needs of the poor, rather than pursuing equity per se.²⁰⁸ Others argue for reducing shortfall inequalities in health capabilities with efficiency.²⁰⁹ Proposals to mitigate inequities include greater resource transfer from rich and increasingly emerging countries to poor countries,²¹⁰ more focus on equality in poverty reduction strategies,²¹¹ South-South collaboration,²¹² and clarifying duties and obligations in domestic and international policy and law.²¹³ International commissions may be a way to move the health equity agenda forward, since they can assert the "power of ideas."²¹⁴ Fairer distribution of voting power and representation of poor countries in international organizations could be beneficial.²¹⁵

Along with inequalities in access to drug and health services noted earlier, another major health inequality is the 90/10 research gap: though the developing world suffers 90 percent of the global disease burden, only 10 percent of research expenditures target that burden. This gap resists remediation both because the private sector has little market incentive to make the investments, and because the means to conduct and access research are so lacking in poor countries.²¹⁶ Under these conditions, technological and scientific advancements such as genomics, nanotechnology, and proteomics in developed countries are likely to widen the gap even more.²¹⁷ Augmenting research capacity in developing countries, information sharing to improve knowledge access,²¹⁸ and "fair global rules" to channel technology toward the health needs of the poor could help bridge this divide.²¹⁹

Local/Country Ownership and Capacity

Recipient countries and localities suffer from the short-term orientation and lack of coordination that plague global health programs, complicate national planning and strain national and local resources. Greater local ownership and participation in global health initiatives are seen as important for development and for sustainability,²²⁰ and are cited as

contributing to recent successes in efforts against malaria, onchocerciasis, and guinea worm, for example.²²¹ Local ownership better represents and addresses local needs,²²² and greater control over community events improves community health.²²³ The Healthy Cities initiative (started in the 1980s) can serve as an example of a strong local approach to development.²²⁴ Country leadership is important, as is the alignment and harmonization of global health initiatives with national plans.²²⁵ Examples of efforts to facilitate coordination and country ownership include PRSPs, the Paris Declaration on Aid Effectiveness, UNAIDS' "Three Ones" initiative, GAVI-HSS, Committee C, and the International Health Partnership and related initiatives (IHP+). Theoretical advantages aside, however, the ability of countries and localities to take ownership of projects is a concern. These efforts must take human resources and financial capacities into account²²⁶ and include key stakeholders. Poor countries might not have the capacity to regulate activities of better-resourced actors,²²⁷ and many governments might lack competence and integrity,²²⁸ which require strengthening. That said, governments in impoverished countries have led and funded "proven successes" in global health.²²⁹ Country ownership may also be difficult to achieve, since donors are often reluctant to give up pet initiatives and longstanding procedures.²³⁰

The Use of International Law

International health law increasingly links to human rights, environmental law, labor law, and trade, and international treaty law takes on growing significance as a mechanism of future international collective action.²³¹ Some believe that international law can more effectively govern health. WHO is deemed to be uniquely positioned to draft international health law and codify international public health treaties, due to its legal authority, institutional mandate, and public health expertise. Yet it has not used its international law-making powers extensively.²³² WHO embraced international law with the 2003 Framework Convention on Tobacco Control (FCTC), WHO's first binding legal treaty.²³³ The FCTC, along with litigation and courts, are mechanisms for holding the tobacco industry liable.²³⁴ Yet WHO's next effort, the non-binding and non-norm-setting Global Strategy on Diet, Physical Activity and Health (2004), seemed to retreat back to a technical and administrative support role.²³⁵ It placed responsibility mainly on nation-states and designated no entity for enforcement or interpretation of policies. More extensive WHO involvement in international law is suggested, for instance to lead effective health law development,²³⁶ to help countries draft and negotiate trade laws,²³⁷ and to coordinate, catalyze, and effectuate future health law codification.²³⁸ Reader argues for an "ex post facto liability regime" to hold countries accountable for the deliberate suppression of disease outbreak information, to improve compliance with IHR, to strengthen international health norms and to push governments to give GHG higher priority.²³⁹ He states that China's behavior during the SARS outbreak amounted to an "abuse of rights" in customary international law.

But international law and agreements can be double-edged swords. As we have seen, existing laws and agreements — more particularly those related to WTO and trade — sometimes hinder health efforts. TRIPS-related obstacles to drug access and trade disputes over states' power to ban harmful imports like tobacco and mutton flaps are examples of international legal barriers to public health promotion. Power and resources influence law-making, and the resulting legislation may favor wealthy businesses and countries. For example, industries and their powerful home countries are better able to shape the development of standards like the Codex Alimentarius, which regulates food trade.²⁴⁰ A still more fundamental problem, however, is the weakness of international law. In the absence of a supranational government with strong and independent enforcement powers, international law is unlikely to be consistently or effectively enforced, regardless of its substantive quality or equity. This problem is acute in the health arena, given WHO's lack of enforcement

powers. The record of member state compliance with WHO binding rules and non-binding recommendations is poor, even when member states can choose which policies to adopt.²⁴¹

Global Health Governance Research Gaps

The global health problem of the 90/10 gap aside, global health governance itself suffers from fundamental knowledge deficiencies. For the most important global health tasks — such as improving population health and strengthening health systems — the global health community may have an insufficient evidence base. Few global health interventions are evidence-based, and interventions to improve population health among the poor are often untested; what works in one place may not work elsewhere.²⁴² More knowledge about interventions' costs and cost-effectiveness is critical.²⁴³ What works and what doesn't work in health policy design and implementation also require more examination.²⁴⁴ Other areas that stand to benefit from more research include the effectiveness of private sector contracting and its impact on the poor,²⁴⁵ biotechnology relevant to disease, agriculture, and the environment²⁴⁶, and GHG institutions and processes. Ways to enable treatment adherence by patients with limited literacy and numeracy are worth exploring as well,²⁴⁷ given the widespread need for relatively complex HIV/AIDS treatments in some of the world's poorest countries. Perhaps more fundamentally, norms for allocating resources across health needs also demand development.²⁴⁸ To maximize usefulness, global health research should address priority health needs and contribute to policy formulation.²⁴⁹

Conclusion

Despite select “proven successes in global health,” overall, the state of global health governance reflected by the literature points to continuing, decades-old problems of insufficient coordination, the pursuit of national and organizational self-interest, inadequate participation by the recipients and targets of aid, and sheer lack of resources. The world needs a new way forward, and shared health governance (SHG)²⁵⁰ may provide a useful conceptual and operative framework. A detailed description of SHG is beyond the scope of this paper; it is discussed elsewhere.²⁵¹ SHG calls for melding values among different global, national, and local actors — a shared vision of health and health provision. Such a consensus aims to foster agreement on goals and strategies to promote program design, implementation, evaluation, and coordination. SHG is compatible with the different framings of health, and can potentially bring the frames together if consensus is sufficiently robust. SHG also advances health agency for all, as enabling affected but marginalized groups to participate in national and global health initiatives is critical for addressing the needs of aid recipients effectively and reining in powerful industry and national interests in global health and international law instruments. The global community should recognize health as a meaningful and operational right, the realization of which will require voluntary resource redistribution from rich to poor in order to narrow the vast, unjustifiable gaps in health and health services. Actors must internalize public moral norms for equity in health and commit to meeting the health needs of others.

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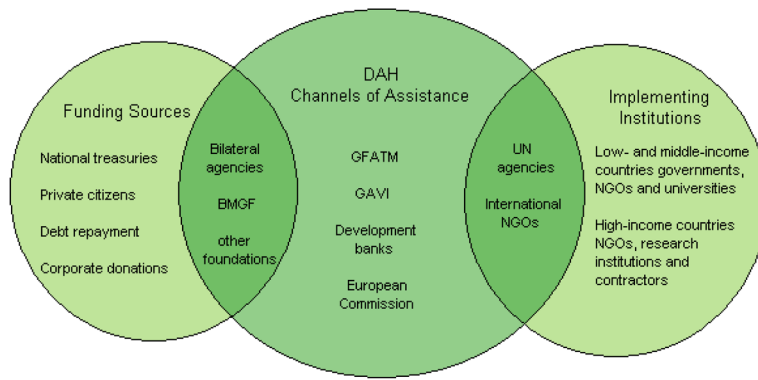


Figure 1.
 Overlapping Roles of Global Health Actors
 Note: “DAH” is development assistance for health. “BMGF” is the Bill and Melinda Gates Foundation. “GAVI” is Global Alliance for Vaccines and Immunization.
 Source: Institute for Health Metrics and Evaluation (IHME), *Financing Global Health 2009*, p.15.

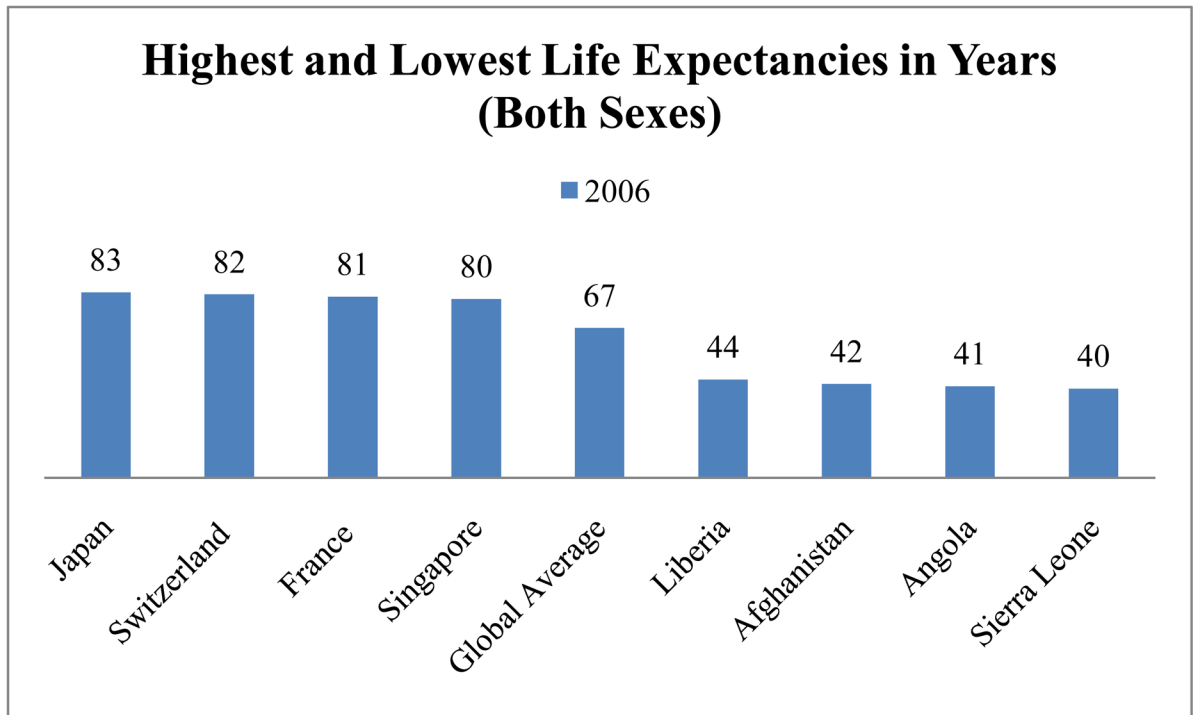


Figure 2.
 Highest and Lowest Life Expectancies in Years (Both Sexes), 2006
 Source: Data from World Health Statistics 2008, pp.36–44.²⁵³

Table 1

Examples of Global Health Actors

Nation-states	<i>Top ten donors, by total amounts (2007):</i> ^a USA, UK, France, Germany, Japan, Canada, Norway, Sweden, Netherlands, Spain <i>Top ten recipients (2002–2007):</i> ^b India, Ethiopia, Uganda, Nigeria, Tanzania, Indonesia, Kenya, Pakistan, Zambia, China
Multilateral Organizations	<i>United Nations Organizations:</i> WHO, UNICEF, UNFPA, UNDP, UNAIDS <i>Others:</i> WTO, World Bank, regional development banks, G8/G20, European Commission, Global Fund
Non-Governmental Organizations	Save the Children, Catholic Relief Services, Medecins Sans Frontieres, Carter Center, Christian Health Association of Malawi, Task Force on Child Survival, Bangladesh Rural Advancement Committee, International Trachoma Initiative (ITI), International Life Science Institute (industry-supported), Doctors without Borders, Partners in Health, Rotary International, Red Cross and Red Crescent Societies, Helen Keller International
Private Sector	<i>Philanthropic foundations:</i> Bill and Melinda Gates Foundation, Edna McConnell Clark Foundation, The Rockefeller Foundation, Clinton Foundation, Bloomberg Initiative <i>Industry:</i> pharmaceutical companies (e.g., Merck, Pfizer, GlaxoSmithKline, Aventi Pasteur), tobacco companies (e.g., Philip Morris, Japan Tobacco), food companies (e.g., makers of infant formula), BASF, DuPont, Exxon Mobil, Sumitomo, other health-related industries

^aIHME, Financing Global Health 2009, Figure 15, p.30.

^bIHME, Financing Global Health 2009, Figure 32, p.50.

Table 2

Some Examples of Global Health Successes

Global Health Problem	Impact	Actors
Smallpox	A global campaign from 1967–1979 made smallpox the first eradicated disease in history	WHO, US CDC, USSR, with participation of all WHO member states ^a
Childhood immunization	Increasing coverage of vaccination against common childhood diseases from 20% in 1984 to 80% in 1990 ^b	Task Force for Child Survival, composed of WHO, UNDP, World Bank, UNICEF, Rockefeller Foundation ^b
Polio	Reduction of reported polio cases from 350,000 in 1988 to fewer than 700 in 2006 worldwide. Elimination of polio in Latin America and the Caribbean ^a	Latin America/Caribbean elimination campaign was led by a coalition of international organizations including PAHO, USAID, UNICEF, InterAmerican Development Bank, Rotary International, and Canadian Public Health Association, and national governments; global eradication campaign started in 1988 led by WHO, Rotary International, UNICEF, US CDC, with funding from governments, NGOs, foundations, and corporations ^a
Guinea worm	Reduction of cases from 3.5 million in 1986 to fewer than 11,000 cases in 2005; reduction of prevalence by 99.7%. Transmission halted in 11 of 20 endemic countries ^a	Carter Center, UNICEF, US CDC, WHO, 20 national governments in Asia and sub-Saharan Africa, donor countries, NGOs, foundations, private sector (e.g. BASF and DuPont), and individuals who undertake behavioral change ^a
Trachoma in Morocco	Reduction of trachoma prevalence by 99% in Morocco from 1997 to 2005; elimination of disease in some provinces ^a	Moroccan government, with external support from UNICEF, the International Trachoma Initiative (through which Pfizer donated Zithromax), Helen Keller International, bilateral and multilateral agencies, local NGOs ^a
HIV/AIDS in Brazil	Brazil's HIV/AIDS program is viewed as a global health role model, providing free antiretroviral therapy to infected patients, with strong education and prevention campaigns, aggressive outreach to vulnerable populations. AIDS mortality decreased by 50% between 1996 and 2002; AIDS hospitalization decreased by 80% ^c	Brazilian government funds ART treatments; it also provides funding for active civil society involvement in HIV/AIDS control. World Bank, from inception of Brazilian program in 1993, has directed almost US\$500 million toward Brazilian HIV efforts ^d -- about 11% of Brazilian HIV spending -- mainly for prevention and tracking (not ART)
MDR-TB	Demonstrated feasibility of treating multi-drug resistant tuberculosis in resource-poor settings, with initial cure rates of up to 80% (first testing site was Peru). WHO in 2005 passed resolution integrating DOTS-Plus and MDR-TB treatment, making the latter available to all patients ^b	PARTNERS, a partnership among Partners in Health, Socios en Salud, US CDC, Peruvian Ministry of Health, WHO, and Task Force for Child Survival and Development; Gates Foundation provided funding. PARTNERS treatment approach also applied in Estonia, Latvia, Lima, Manila, and Toms ^b
Onchocerciasis	Onchocerciasis Control Programme (OCP) halted transmission in 11 West African countries and made 25 million hectares of arable land safe for settlement. African Programme for Onchocerciasis Control (APOC) is estimated to prevent 54,000 cases of blindness each year ^a	WHO, World Bank, UNDP, FAO, USAID, Merck, Task Force for Child Survival and Development, Carter Center, Helen Keller International, Lions Clubs, River Blindness Foundation, 11 West African countries (OCP), 19 Central, South, and East African countries (APOC), and other donors and participants ^a

^aLevine et al., *Millions Saved*, http://www.cgdev.org/section/initiatives/_active/millionssaved/studies

^bRosenberg et al., *Real Collaboration*

^cOkie, "Fighting HIV"

^dWorld Bank, "Improving Healthcare and Quality of Life for People Living with HIV/AIDS in Brazil," (27 September 2010), <http://go.worldbank.org/DIZ29JT640>

Table 3

Financial Development Assistance for Health by Health Focus, 1990–2007

2007 US\$ (Millions)							
Year	HIV/AIDS	Malaria	TB	Health Sector Support	Other	Unallocable by Disease	Total
1990	189	38	17	-	2,544	2,800	5,589
1991	201	43	18	-	2,618	2,595	5,474
1992	208	19	16	-	2,891	2,980	6,115
1993	218	18	34	-	3,433	2,909	6,612
1994	333	38	26	-	3,807	3,564	7,767
1995	344	33	26	8	3,854	3,750	8,015
1996	400	39	53	3	3,924	3,686	8,106
1997	437	37	35	12	4,303	3,596	8,420
1998	430	61	56	2	4,317	3,788	8,654
1999	557	76	75	6	4,947	4,136	9,797
2000	718	153	118	13	5,407	4,288	10,697
2001	924	148	153	14	5,431	4,237	10,907
2002	1,408	127	173	72	5,495	5,165	12,440
2003	1,820	184	213	124	6,383	4,825	13,548
2004	2,433	352	360	215	6,740	5,502	15,603
2005	3,086	720	390	424	7,015	6,272	17,907
2006	3,907	649	506	776	6,270	6,888	18,997
2007	4,943	724	649	937	6,570	7,968	21,791

Notes: Developmental Assistance for Health (DAH) includes both financial and in-kind contributions for activities aimed at improving health in low- and middle-income countries. This table disaggregates financial DAH earmarked for HIV/AIDS, malaria and tuberculosis specific activities as well as DAH provided as sector-wide support. The Institute for Health Metrics and Evaluation was able to allocate flow from the following channels of assistance by their disease focus: bilateral development agencies, World Bank (International Development Association & International Bank for Reconstruction and Development), African Development Bank, Asian Development Bank, GFATM, GAVI, and the Bill and Melinda Gates Foundation. Contributions from remaining channels are shown as unallocable by disease.

Source: Adapted from IHME, *Financing Global Health 2009*, p.110.

Table 4

Medecins Sans Frontieres Comparative Study of Generic and Patented Fluconazole: Wholesale Prices of 200mg Capsules, June 2000

Manufacturer	Country of Distribution	Price per Unit (US\$)
Biolab (Thailand)	Thailand	0.29
Cipla (India)	India	0.64
Bussie (Colombia)	Guatemala (negotiated)	3.00
Pfizer	Thailand	6.20
Vita (Spain)	Spain	6.29
Pfizer	South Africa	8.25
Pfizer	Kenya	10.50
Pfizer	Spain	10.57
Pfizer	Guatemala (negotiated)	11.84
Pfizer	USA	12.20
Pfizer	Guatemala (not negotiated)	27.60

Source: Adapted from Perez-Casas, Chirac, Berman, and Ford, "Access to Fluconazole in Less-Developed Countries", p.2102.²⁵²