

Global health governance as shared health governance

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ABSTRACT

Background With the exception of key 'proven successes' in global health, the current regime of global health governance can be understood as transnational and national actors pursuing their own interests under a rational actor model of international cooperation, which fails to provide sufficient justification for an obligation to assist in meeting the health needs of others. An ethical commitment to providing all with the ability to be healthy is required.

Methods This article develops select components of an alternative model of shared health governance (SHG), which aims to provide a 'road map,' 'focal points' and 'the glue' among various global health actors to better effectuate cooperation on universal ethical principles for an alternative global health equilibrium. Key features of SHG include public moral norms as shared authoritative standards; ethical commitments, shared goals and role allocation; shared sovereignty and constitutional commitments; legitimacy and accountability; country-level attention to international health relations.

Results A framework of social agreement based on 'overlapping consensus' is contrasted against one based on self-interested political bargaining. A global health constitution delineating duties and obligations of global health actors and a global institute of health and medicine for holding actors responsible are proposed. Indicators for empirical assessment of select SHG principles are described.

Conclusion Global health actors, including states, must work together to correct and avert global health injustices through a framework of SHG based on shared ethical commitments.

INTRODUCTION

This article presents shared health governance (SHG) as an alternative theory of global health governance (GHG), one based on a moral conception of global health justice called *provincial globalism*. It contrasts SHG with the existing model and identifies opportunities for GHG reform. While discussed extensively elsewhere and only briefly here, *provincial globalism* asserts a general duty to reduce shortfall inequalities in, and address threats to, central health capabilities (premature mortality and escapable morbidity), and stipulates shared global and domestic responsibilities.¹ Responsibility allocations rest on the specific duties and effectiveness of different actors. This framework respects self-determination by groups and individuals and seeks voluntary commitments. SHG embodies the moral principles of this global health justice theory. It rests on internalising the public

moral norms it promotes as shared authoritative standards. The moral conception of global health justice set out in *provincial globalism* builds on and expands globally the *health capability paradigm* developed for the domestic realm in *Health and Social Justice*.² This theory is grounded in a particular view of the good life, 'human flourishing,' valuing health intrinsically and giving special moral importance to 'health capability', a person's ability to be healthy.

Global health has experienced a record entry of private and public actors with unprecedented funding levels. This hyper-pluralism and fragmentation have received popular and academic attention, characterising them as anarchic and requiring coordination and control. Online appendix figures 1A,B^{3 4} illustrate the congested, chaotic and complex nature of the activities of various global health actors. Public and private actors each pursue their own goals and preferences and not necessarily those of their 'beneficiaries.' Overlapping interests among donors can cause confusion and paralysis that dissipate or delay aid.⁵ Conflicts in donor priorities and requirements create competition and duplication of activities that overwhelm recipient countries' institutional capacities. By creating parallel facilities, systems and procedures, donors distort the design, implementation and sustainability of health programmes.^{6 7} So far, attempts to coordinate proliferating global health actors have fallen short.

No dominant overarching theory has emerged to elucidate current GHG or to provide principles upon which a new approach might develop. Rather, older international relations frameworks (realism and institutionalism), which continue to recycle various perspectives (sovereign states' self-interest and international human rights law), have shaped international health relations over time.^{8–10} The global public goods perspective emphasises the need for international collective action to provide services (eg, disease control and surveillance, rules and standards) for the mutual benefit of rich and poor countries alike.^{11 12} Attention to mutual benefit, however, may neglect health issues more particular to the poor.¹³ The utopian or human rights approach, also present in global health, has put forth the 'right to health' in domestic case law,^{14 15} but it has also been employed to mobilise support for addressing disease and morbidity worldwide. Yet, the human rights strategy has only been moderately effective and some would argue ineffective—for example, in efforts to control and mitigate the HIV/AIDS epidemic.¹⁶ A vague, underspecified conception of a 'right to health' and unclear, inadequate allocation of obligations to

meet rights claims undermine this approach.^{17 18} On its own, it is an insufficient framework for GHG. The current regime of global health is neither orderless nor uncooperative. With the exception of key 'proven successes' in global health, which operate primarily at a programmatic level, the regime comprises transnational actors with their own specific interests operating under a rational actor model of international cooperation. But the global health enterprise lacks collective principles representing the needs and interests of all whose health is compromised or threatened. National, group or self-interest alone fails to justify an obligation to help meet the health needs of others. We need an ethical commitment to provide all with health capability.

GHG has failed to develop and effectuate a moral norm of equity in health. A theory of global health justice is needed to bind actors together in cooperation for health. *Provincial globalism* provides one such theoretical framework. In the rational actor and rational choice framework, agents (actors) act on their own or on behalf of principals (national governments, foundations, private institutions) that may or may not share common goals of health equity, which necessitate common commitments and 'shared health governance'. Such actors may work together in pursuit of enlightened self-interest, as in the global public goods perspective. This cooperation based on self-interest alone, in contrast to SHG, does not recognise that the provision of public goods is also a collective exercise in which people and organisations play roles and have responsibilities towards a social goal that is undergirded by moral conceptions about equity and capability. SHG separates health and disease control from powerful countries' narrow interests, the self-interest of wealthy non-governmental organisations (NGOs) and foundations, and international legal instruments. It does not refute or abolish entirely self- or national interest; rather, it seeks to align them with shared goals through ethical commitments. It grounds GHG in principles of justice.

RATIONAL ACTOR MODEL OF GHG

Under the current *rational actor model*, individual actors in the global health environment are rational decision makers. They include individuals (eg, a health minister), NGOs, multi lateral public institutions like the World Bank and the WHO, public-private partnerships like the Global Alliance for Vaccines and Immunisation, and nation-states (and their constituent parts). In the rational actor model, each actor *has its own set of goals and objectives*, and these actors *take actions based on analysis of the costs and benefits of various available options*. Moreover, within many multilateral institutions, the most powerful actors can dominate and effectively direct policy and resource allocations towards their goals and objectives. International organisations, too, pursue their own interests, which may or may not coincide with those of states. Even NGOs, which have a distinctly populist flavour, *operate out of their own interests*.

The current global health landscape includes record numbers of actors and financial resources, both public and private (online figure 1B). In addition to the WHO, World Bank and the European Union, some of the largest players are relatively new and include the Gates Foundation, the United States President's Emergency Plan for AIDS Relief, The Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund) and corporations (eg, pharmaceutical companies). The Global Fund—for example—now provides roughly 20% of international public HIV/AIDS programme funding, 65% of malaria funding, and 65% of TB funding for 22 high-burden countries.¹⁹ The Global Fund is the

quintessential contemporary initiative, focused on selective aid for narrow disease control programmes in particular countries and on monitoring and evaluating intermediate indicators rather than developing broader health systems—even though health systems, while not as high profile as disease-specific initiatives, are essential building blocks for sustainable health.

One study identified several key characteristics in donor funding. These include narrowly defined success criteria (eg, performance results based on organisational measures—number of loans disbursed, dollars provided—rather than health outcomes), overlapping mandates, competition and duplication of health activities, shifting power structures and poor coordination.⁶ As a result, most technical assistance and funding conform to *donors'* rather than *recipient countries'* policies and values. And because *donor-driven development* is evaluated by organisational criteria, it *eludes critical scrutiny of its ultimate impact on health and disease control*. In 2006, the World Bank estimated that half of health aid in sub-Saharan Africa fails to reach intended clinics and hospitals.²⁰ Another study of children's immunisation programmes found that confusing priorities and policies at the global and country level delayed new vaccine delivery, and recommended that overlap among the WHO, the World Bank, the Gates Foundation's Children's Vaccine Program and other organisations be addressed.⁵

Developing countries are required to manage each donor's project according to the donor's demands. This can conflict with the recipient country's needs and abilities. Donors undermined essential drug distribution in Tanzania⁶ and integration of reproductive health services in Kenya⁷ by creating their own parallel systems and by adding vertical programmes. Most donor funding is disease- and programme-specific and fails to address weak in-country institutional capacity.

The burdens and mayhem are evident in numerous recipient countries. A 2003 Organisation for Economic Cooperation and Development study in 11 recipient countries revealed that five of recipient countries' heaviest burdens were: difficulties with donor procedures, donor-driven priorities and systems, uncoordinated donor practices, excessive demands on time, and delays in disbursements.²¹ Another study in Mozambique, Tanzania, Uganda and Zambia, all Global Fund recipients, found that all four countries had difficulties incorporating additional resources and meeting donor requirements. It concluded that the need to learn the management of a new financial mechanism and to juggle proliferating activities among multiple donors overwhelmed them.²²

Self-interest maximisation leads to suboptimal results in global health policy. A review of the literature points to eight counterproductive elements: (1) electoral considerations, political and social power; (2) donor ideology and preference; (3) turf; (4) inter-NGO competition for funding and excessive demand for accountability; (5) profits; (6) geopolitical and strategic interests; (7) recipient manipulation of aid; (8) mutual dependence on ineffective aid. Table 1 offers limited examples. Efforts to improve cooperation and coordination (eg, Paris and ACCRA principles (harmonisation and alignment), Comprehensive Development Framework (country ownership), Poverty Reduction Strategy Papers, International Health Partnership, Health 8, Health Clusters, committee 'c'; proposals such as global action networks, a Framework Convention on Global Health, issue-specific global health laws, etc) have occurred primarily at a practical level,¹⁰ leaving theoretical issues unaddressed. A theoretically grounded normative approach is lacking.

COMMON GOALS AND COMMON COMMITMENTS: THE SOCIAL AGREEMENT MODEL

While the rational actor model predominates, specific examples of successful collective action exemplify global health cooperation. Successful coordination among agencies occurs, for example, in the Onchocerciasis Control Programme, the Task Force on Child Survival and the Global Polio Eradication Initiative. Box 1 provides three examples. Additional illustrations of success include campaigns to eradicate polio and the guinea worm, and to eliminate lymphatic filariasis. These efforts involve the participation of numerous international and national actors as well as corporate and non-profit entities, such as the WHO, UNICEF, US Centers for Disease Control and Prevention, the Carter Center, the Gates Foundation, Du Pont and Merck.^{51–53} Global measles mortality has also greatly declined since 2000 due to a drive to eliminate the infection by national governments, WHO, UNICEF, and the International Federation of Red Cross and Red Crescent Societies.^{54–55} These examples exhibit four general characteristics: partnerships defined by a shared goal; clear objectives and agreed-upon roles and responsibilities; delineation of complementary expertise and accountability in pursuing goals; donors' willingness to cede the lead to others.⁵⁶

Common goals are essential to successful collective action. To achieve consensus, GHG should move beyond the rational actor model to a normative model of social agreement theory, in which actors embrace shared values to produce stability and

social unity. John Rawls' notion of 'overlapping consensus' clarifies this dynamic, emphasising the necessity of identifying shared values—even values shared for various reasons—and social agreement for making decisions collectively.

Rawls distinguishes between political bargaining models—associated with a rational actor model—and conceptual models rooted in political philosophy. He suggests that political bargaining models are akin to a *modus vivendi*—a consensus on 'accepting certain authorities, or on complying with certain institutional arrangements, founded on a convergence of self- or group interests' (Rawls, p147).⁵⁷ If power relations shift or players' positions change, and powerful actors are no longer in a position to keep the bargain, the convergence would no longer hold. For example, an international agreement among the G8 nations based on trading favours would be unstable because the bargain would be 'contingent on circumstances remaining such as not to upset the fortunate convergence of interests' (Rawls, p147).⁵⁷ Additionally, an international consensus such as the Millennium Development Goals does not necessarily signify a true consensus nor guarantee achieving those goals. Successful polio and smallpox eradication, for instance, requires *each country* to continue to immunise its children, even if that country has been disease-free for some time, to reduce the chance of cross-border transmission. Each country must commit to this underlying goal and if not all countries continue to immunise, eradication is compromised.

Table 1 Examples of self-interest maximisation and suboptimal results in global health

Interest being maximised	Examples
Political and social power	<ul style="list-style-type: none"> ▶ Focus on health on foreign policy agenda dominated by infectious diseases and bioterror—on how the West is affected by health risks from the developing world, rather than on promotion of global public health.²³ ▶ Governments in low-income countries often direct disproportionate resources to politically important urban and elite populations; for example, in Ghana in 1994, the richest fifth of population received 33% of public spending in health, while the poorest fifth received 12%.²⁴ ▶ Birth control arbitrarily dispensed by community-based distributors wishing to develop prestige and respect.²⁵
Donor ideology and preference	<ul style="list-style-type: none"> ▶ IMF's neoliberal economic approach called for fiscal austerity and imposed public spending ceilings, which rendered Ugandan government nearly unable to accept \$52 million from The Global Fund.²⁶ ▶ Some faith-based organisations stress abstinence and faithfulness but marginalise or exclude condoms from HIV/AIDS prevention campaigns; HIV and those infected are often stigmatised.²⁷ ▶ Uncoordinated focus on specific diseases lead to lopsided health funding and neglect of overall health system development.²⁸
Turf protection	<ul style="list-style-type: none"> ▶ Attempts to streamline UN system thwarted by disagreements on how to redefine duplicating and overlapping functions.^{28–29} ▶ Botswana physicians hindered scale-up of antiretroviral therapy by resisting use of phlebotomists to ease medical staff shortage.³⁰ ▶ Honduran town receiving UN World Food Program aid wished to participate in a project run by NGO CARE; WFP threatened to leave if town accepted CARE assistance.³¹
Inter-NGO competition	<ul style="list-style-type: none"> ▶ To remain competitive for funding, NGOs sometimes withhold information about ineffective programmes, undertake projects in areas for which they have little expertise and tolerate recipient misbehaviour; NGOs offered Kyrgyztani politicians bribes to maintain good relations.³² ▶ To satisfy donor demands for accountability and ensure continued funding, aid recipients deal with duplicate paperwork and onerous monitoring requirements at the expense of substantive work³³; Tanzania in 2001–2002 had 1000 donor meetings and 2400 donor reports each quarter.³⁴
Profits	<ul style="list-style-type: none"> ▶ 10/90 gap; lack of drug R&D for tropical diseases.³⁵ ▶ Price of Pentamidine, a previously cheap treatment for sleeping sickness, rose 500% after it was discovered to be effective for AIDS-related <i>Pneumocystis carinii</i> pneumonia; the drug disappeared from the markets of poor African and Southeast Asian countries.³⁶ ▶ Tobacco industry lobbies government and UN agencies (eg, FAO) to resist WHO's tobacco control programmes³⁷; tobacco companies in many developing countries also use marketing strategies banned in many developed countries.³⁸ ▶ Corruption and theft in public sector medical supply chain.³⁹
Geopolitical interests	<ul style="list-style-type: none"> ▶ Rich countries direct aid to strategic allies, former colonies or regions they wish to influence, rather than giving aid based on need⁴⁰; the poorest countries receive just 40 cents of every dollar sent overseas.⁴¹ ▶ A 2007 UN resolution addressing Myanmar's failure to respond to its HIV epidemic was vetoed by China, which considered Myanmar a long-term strategic ally and did not desire the introduction of US influence into the region.⁴²
Recipient manipulation of aid	<ul style="list-style-type: none"> ▶ Ethiopian government denied food aid to rebel-controlled territories during the 1983–1985 famine.⁴³ ▶ Filipino government was dealing with insurgency during the WHO Malaria Eradication Program, and stopped malaria spraying on at least one important island in order to allow the spread of malaria among the insurgent population.⁴⁴
Mutual dependence on ineffective aid	<ul style="list-style-type: none"> ▶ Madagascar continued to receive aid despite poor performance in meeting goals, due to mutual dependence of donors and recipient. Donors depended on continuing need for aid as a reason to pursue interests such as maintaining/expanding spheres of influence and containing terrorism. NGOs benefited from persisting justification for their existence, Madagascan elites received material benefits, while the government derived legitimacy from attracting aid and dealing with donors.⁴⁵ ▶ NGOs in Honduras opted for uncoordinated chaos rather than be told that their project might not be needed; Honduran government opted for allowing chaos to persist rather than have funding cut-off, and did not enforce coordinated plan.³¹

NGOs, non-governmental organisations.

Box 1 Three examples of global health successes and shared health governance principles

Onchocerciasis Control Programmes

The OCP and the Merck ivermectin donation programme administered by the Task Force for Child Survival and Development are widely considered to be exemplary.⁴⁶ The 1974 OCP covered West Africa and was a collaboration between the World Bank, WHO, UNDP and FAO; the 1995 African Programme for Onchocerciasis Control (APOC) expanded the effort to central, southern and eastern Africa, and extended participation to 21 bilateral and multilateral donors, more than 30 NGOs (including the Carter Center, Helen Keller International, Lions Clubs and the River Blindness Foundation), and more than 100 000 rural communities.⁴⁶ Both programmes used ivermectin donated by Merck. The programmes halted parasite transmission in 11 West African countries and made 25 million arable hectares safe for resettlement.⁴⁶ Factors driving the success of these programmes include: a *shared goal* to control onchocerciasis; willingness of actors to be coordinated regionally for OCPs and into an ivermectin distribution network by the Task Force; clear delineation of roles facilitated *mutual accountability*; community involvement and grassroots empowerment increased *health agency*.⁴⁷

HIV/AIDS in Brazil

In Brazil, an egalitarian ethos underlies the healthcare system, with healthcare considered a duty of the state. Civil society is involved in health policy planning, and the government funds health advocacy groups. The Brazilian effort to combat HIV/AIDS is held up as a model to be emulated; between 1996 and 2002, Brazil halved mortality from AIDS.⁴⁸ Part of this Brazilian undertaking has been funded by the World Bank, which made loans despite the divergence of Brazilian health policies from World Bank positions, showing a 'respect for different values and social choice'.⁴⁹ Factors driving the success of these healthcare systems include: a *shared commitment* to HIV/AIDS prevention and control; clear recognition of the *state's obligation to provide healthcare* in Brazil; *health agency-enhancing* civil society involvement, country ownership of health policies.

WHO global influenza surveillance

First established in 1948, WHO's global influenza surveillance programme involves 110 collaborating laboratories in 82 countries. It is an example of a 'highly successful global partnership'.⁵⁰ National case detection systems and labs are strengthened according to internationally accepted norms; virus isolates from national labs are further analysed in one of four WHO influenza collaborating centres, and these data are then used in the annual influenza vaccine design process. The 1997 H5N1 outbreak in Hong Kong was effectively handled, with rapid identification of the virus strain by a collaborating lab in the Netherlands, and mobilisation and coordination of investigating team from US WHO collaborating centres. Scientific studies, public information and diagnostic test kits were quickly developed and distributed, resulting in a 'timely, ordered, and effective response'.⁵⁰ Factors driving the success of this programme include: *shared goal* of outbreak surveillance and control; *mutual obligation* to detect and report outbreaks; *coordination and cooperation* to provide a global public health good.

Additional distinctions separate social agreements based on overlapping consensus and those resulting from political bargaining. First, as Rawls notes, the object of an overlapping consensus 'is itself a *moral* conception' [my italics], valued in itself (Rawls, p147).⁵⁷ Second, the overlapping consensus is 'affirmed on moral grounds' and includes 'conceptions of society and of citizens as persons, as well as principles of justice, and an account of the political virtues through which those principles are embodied in human character and expressed in public life' (Rawls, p147).⁵⁷ It represents a consensus on the public good among both elites and citizens, rising above group- or self-interest. Third, the overlapping consensus is more stable because it is a *reasonable* consensus, not simply a balance of power. A *modus vivendi*, by contrast, reflects a *temporary* agreement among different and opposing actors. Thus, the overlapping consensus framework has lasting power through subsequent shifts in influence (Rawls, p148).⁵⁷ Fourth, a social agreement framework endeavours to educe 'certain fundamental ideas viewed as latent in the public political culture of a democratic society' (Rawls, p175).⁵⁷ It attempts to tap into individuals' shared core values, even if individuals and their representatives have difficulty articulating those values completely. Fifth, this framework contrasts legitimate political authority with political power, differentiating authentic authority from the self-interest so often inherent in power (Rawls, pp143–4).⁵⁷ It rejects coercion (Rawls, p143),⁵⁷ recognising that stability comes from a reasonable consensus on a political conception that is politically legitimate, based on appeals to the 'public reason' of 'free and equal citizens' (Rawls, p144).⁵⁷ From this social agreement perspective, legitimate

political authority has pragmatic advantages in forging consensus and cooperative coalitions. Compared with political bargaining based on expedience, a social agreement involves actors' commitment and consensus on values, which render that agreement more sustainable over time and in the face of difficulties.

At the national level, a social agreement model emphasises public deliberation, responsible leadership and mass communication; it relies on popular sovereignty and political leadership to reach agreement on the common good. In many countries, common ground on ethical principles governing health and healthcare remains elusive. Achieving health equity requires finding it.

GLOBAL HEALTH GOVERNANCE AS SHARED HEALTH GOVERNANCE**Values, ideas and norms in GHG**

Values, ideas and norms have a critical role to play in GHG, a role inadequately studied and lacking a theoretical framework. Global health problems require joint action for their resolution and require analysis within a *normative framework*. This framework evaluates actors' ethical commitments to making sacrifices and effectuating policies and programmes transcending self-interest and narrow notions of individual rationality, which also play an important role in behaviour. While values are embedded in ideas, providing norms' content, norms are internalised, having a 'taken for granted' quality. Public moral norms, their degree of internalisation and the level of social consensus around them demand study in the GHG context.

In international relations theory,⁵⁸ 'ideas' influence international public policy in several ways, the first of which is to provide a 'road map' 'that increase[s] actors' clarity about goals or ends-means relationships' (Goldstein and Keohane, p3).⁵⁹ Principled ideas or beliefs—for example—in the form of values, can have a significant impact on global political action. In 1989, for just one example, Eastern Europeans put their lives on the line for freedom.⁵⁹ Global health requires a set of principled ideas to shift the focus from material and power interests to moral concerns.

Second, ideas play a role in coordinating behaviour to solve collective problems, particularly where there is no unique equilibrium. '[I]deas affect strategic interactions, helping or hindering joint efforts to attain 'more efficient' outcomes' (Goldstein and Keohane, p12).⁵⁹ They serve as 'focal points' defining cooperative solutions 'or act as coalitional glue' helping particular groups cohere (Goldstein and Keohane, p12).⁵⁹ '[I]deas focus expectations and strategies' especially where incomplete agreement occurs (Goldstein and Keohane, p18).⁵⁹ As Garrett and Weingast note, 'given that most agreements are likely to be incomplete ... shared beliefs about the spirit of agreements are essential' to maintain cooperation (Garrett and Weingast, p176).⁶⁰

Third, ideas become embedded as rules and institutionalised norms '[o]nce institutionalized ... ideas continue to guide action' (Goldstein and Keohane, p5)⁵⁹ leading to 'reinforcing organizational and normative structures' (Goldstein and Keohane, p13).⁵⁹ Jackson, for example, explains European foreign policy shifts towards decolonisation by normative ideational changes favouring self-determination among former colonies.⁶¹ 'Epistemic communities' are also important here as these networks of experts possess knowledge of both social scientific and normative information⁶² that facilitate idea institutionalisation and enforcement.

Provincial globalism: a functional approach to responsibility allocation

Provincial globalism allocates responsibility for effectuating global health justice based on functional requirements and voluntary commitments. These obligations, set out in 'Global Health Justice',¹ will not be reiterated here. However online appendix figure 2 offers a preliminary pragmatic sketch of certain elements, which requires further refinement to bring respective roles and responsibilities into greater focus, given the considerable overlap and redundancies in functions among actors that complicate clear delineation of duties. Table 2 illustrates how respective roles may shift over time. A provisional 'road map' for GHG is necessary to avoid 'dumping' duties on various state and global actors without sufficient moral justification.¹⁷ Duty dumping can prompt parties to skirt responsibility.

Another key 'road map' feature is the willing assumption of duties among individuals and institutions. This voluntary participation enhances their autonomy and boosts effective implementation. Individuals and institutions that have embraced ethical commitments and internalised public moral norms are more likely to discharge specific duties than those who have not.^{63–65} The public moral norm incorporates self- and national interest, as well as others' interests, in the context of a global society. It connects and aligns individual and society. The assumption of duties should be based on moral grounds and should be voluntary, not coerced. Individuals who have internalised ethical commitments freely enter into them and create expectations for compliance. In other works, I have argued for 'joint commitments' under plural subject theory as one

mechanism for this. We accept our shared responsibility for health by jointly committing⁶⁶ to the global health enterprise. Collective global health action entails ethical commitments and public moral norm internalisation as the 'glue' holding the system together and making actors accountable.

Internalising a public moral norm of health equity is important because effective health governance requires *not just self- and national interest or even legal instruments*, but individuals and groups willing to make choices to ensure health capabilities for all. This orientation in turn leads to domestic and global policies embracing health equity and measures to achieve it.

A paradigmatic change from rational actor to normative commitments in GHG also changes the framework for evaluating activities of global and domestic actors. Effectiveness in advancing the overarching goal of health equity must be the criterion. Thus, even though wealthy foundations and powerful developed countries have a *legal right* to shape expenditures by their own objectives, they have an *ethical obligation* to collaborate with other actors to enhance health equity. This *one-goal, multiple-actors* approach to GHG contrasts with the *multiple-goals, multiple-actors* approach of the current system.

Shared global health sovereignty: a global health constitution

There is no world health government with global authority and enforcement powers. Thus, achieving effective global health policy and solving global health problems⁶⁷ will require alternative governance structures to coordinate independent yet interdependent actors. With no overarching institution, GHG as SHG entails a constitution of sorts to demarcate health governance globally. A 'global health constitution' would delineate the actors (eg, federal and state governments, global/international institutions, individuals) and specify their respective duties and obligations, thus allocating responsibility. The global health constitution would set a framework and procedures informed by authoritative standards and principles as presented elsewhere¹ as a foundation for assigning duties and obligations. Constitutional interpretation would then assess whether or not actors are meeting their obligations. To date, the different actors in the global health system have not known what their respective duties and obligations are. Holding them accountable for unspecified responsibilities is inappropriate. Under a global health constitution, obligations would be clear and evading them would no longer be an option.

The global health constitution need not be a legal constitution. It sets out a meta-level system of regulation (by self and others) through ethical commitments, but it neither replaces nor competes with the WHO constitution; rather, the two are complementary. The WHO's roles and responsibilities in GHG must be contextualised in an overall framework. The global health constitution arches above the WHO constitution; if the latter were able to serve this higher-order function, a global health constitution would be unnecessary, but the WHO has not been able to fulfil this role. This higher-order charter is constitutional in prescribing institutional arrangements and procedures and in assigning responsibilities and authority to public and private actors. Accountability in the form of pressure from various groups may also be more possible under this regime, since it prescribes what duties individuals and institutions owe and to whom. The constitution must imbue public moral norms. Compliance, enforcement and accountability of actors discharging global health duties most likely will occur at the country level; at the global level, the discharge of duties would be regulated by checks and balances among global actors in accordance with an overarching global health policy. An

Table 2 GHG as a temporal problem

Progressive realisation		
Stage I Larger role for GH institutions around key functions	Stage II Smaller role for GH institutions around key functions	Stage III Homeostatically balanced equilibria
<ul style="list-style-type: none"> ▶ Global health institutions to help states (where necessary) reach a point at which states can carry out specific health duties to ensure health capability of people living within their borders ▶ When states are unjust or unable to carry out health duties, the global community helps states meet their obligations and works for health equity within the confines of those societies' self-determination and self-governance. The global community must provide assistance and oversight, but without using coercion; incentives and other forms of choice architecture may be useful ▶ Force, power, coercion or sanctions might seem logical but such measures often cause more harm than good especially among populations suffering most (eg, Iraq sanctions) ▶ Global health institutions undertake tasks beyond national capacity, such as coordinating global efforts to limit and prevent externalities (eg, disease outbreaks), supporting national/local health systems, creating and disseminating global public goods, norms and standards, addressing cross border issues and continuing to build and maintain consensus on global health priorities and actions 	<ul style="list-style-type: none"> ▶ Policies and redistribution in Stage I enable states to meet health needs of their local population, and address health inequities and externalities (disease surveillance and control at the domestic level) ▶ States engage in resource distribution, oversight and regulation, and provision of health-related goods and services, based on some consensus notion of health equity reached through the political process and internalised in national health system ▶ Global health institutions continue to undertake tasks beyond national capacity, such as coordinating global efforts to limit and prevent externalities (eg, disease outbreaks), supporting national/local health systems, creating and disseminating global public goods, norms and standards, addressing cross border issues and continuing to build and maintain consensus on global health priorities and actions 	<ul style="list-style-type: none"> ▶ National health systems in connection with global health institutions have capacity to respond to external health shocks through internal regulation and adjustment, as sufficiently developed/sophisticated: entails both the process of achieving balance and the balanced 'end-state' ▶ Global health institutions and actors' specific duties defined by global health functions they perform. Global health actors and institutions held to account for effectively and efficiently fulfilling roles ▶ When global health institutions are inadequate to their tasks, global health actors and states cooperate to reform or generate new consensus and multilateral mechanisms to deal with persistent or new challenges ▶ Differentiation and integration among global health actors through consensus building process to achieve more complex, more comprehensive global health system to handle greater variety and greater complexity of tasks^{75 76}

GHG, global health governance.

independent non-governmental peer review organisation like a Global Institute of Health and Medicine is one possible institutional choice to serve these functions at the global level.

Legitimacy and accountability in GHG: evidence from Malawi

Legitimate and reliable mechanisms are necessary to hold actors responsible for fulfilling their duties in the SHG framework. Unlike the rational actor model with its competing interests and contrasting goals, SHG's framework involves congruence among the goals and values of different actors and groups. It envisions full knowledge and mutual understanding of objectives and agreement on assessment indicators. Cost management and efficiency are integral parts of good SHG. Accountability (eg, for resource use, implementation and results) and mechanisms to ensure it are essential. Because primary duties and obligations occur at the state level, accountability and legitimacy mecha-

nisms must start there. Under GHG as SHG, global health policy must also reflect health agency-enhancing processes. The 'health agency' concept has been discussed elsewhere.^{1 68 69}

We have developed select indicators to assess these ideas empirically. These indicators measure (1) goal alignment; (2) adequate levels of resources (human and financial); (3) mutual understanding of key outcomes and principle indicators for evaluating those outcomes (ie, consensus about indicators and the statistics that measure them); (4) meaningful participation of key global, national and sub-national groups and institutions; (5) efforts to engage key vulnerable groups most affected by policy decisions (eg, the poor, women, youths, persons with disabilities and the elderly); (6) effective, efficient resource use for priority areas. In 2005 we began developing a survey to examine these dimensions, and in 2007 applied it as a preliminary study of SHG in the Malawi Poverty Reduction

Table 3 Shared health governance versus current global health regime

	Shared health governance	Current global health regime
Values and goals	<ul style="list-style-type: none"> ▶ Joint commitments and mutual obligation, align common good and self-interest ▶ Consensus among global, national and subnational actors on goals and measurable outcomes ▶ Full knowledge and mutual understanding of objectives and means 	<ul style="list-style-type: none"> ▶ Pursuit of own interests and priorities that often conflict with those of other actors ▶ Lack of agreement on strategies and outcomes ▶ Ideology-driven rather than problem-driven
Coordination	<ul style="list-style-type: none"> ▶ Actors are willing to be coordinated with or without communication or centralisation 	<ul style="list-style-type: none"> ▶ Actors often do not coordinate and are often not willing to be coordinated
Evaluation	<ul style="list-style-type: none"> ▶ Agreement on indicators for evaluation of common purpose 	<ul style="list-style-type: none"> ▶ Lack of agreement on outcomes and indicators for evaluation
Accountability	<ul style="list-style-type: none"> ▶ Mutual collective accountability 	<ul style="list-style-type: none"> ▶ Limited accountability (esp. in bilateral aid, NGO implementation)
Agency/participation	<ul style="list-style-type: none"> ▶ Enhancement of individual and group health agency, special efforts to include marginalised and vulnerable groups; focus on enabling environments 	<ul style="list-style-type: none"> ▶ Intended beneficiaries often excluded from policy planning and programme design; lack of knowledge and skills
Efficiency	<ul style="list-style-type: none"> ▶ Cost management and efficiency are integral 	<ul style="list-style-type: none"> ▶ Competition between actors and the lack of participation by intended beneficiaries entail funding inefficiencies and cost escalation
Legitimacy	<ul style="list-style-type: none"> ▶ Legitimacy through accountability and inclusive participation of stakeholders, through respect for self-determination, appeal to public reason and independent peer review 	<ul style="list-style-type: none"> ▶ Legitimacy of actors and initiatives not always clear due to inadequate representation of stakeholder interests and lack of effectiveness
Level of analysis	<ul style="list-style-type: none"> ▶ Local and national actors as foci to perform the work of global health governance with global and national duties and institutions as a guide 	<ul style="list-style-type: none"> ▶ Top-down; country-driven efforts and reforms (eg, CDF, PRSP) moderately successful; specific countries and local level collaboration programmes highly successful (eg, smallpox, OCP)

OCP, Onchocerciasis Control Programmes.

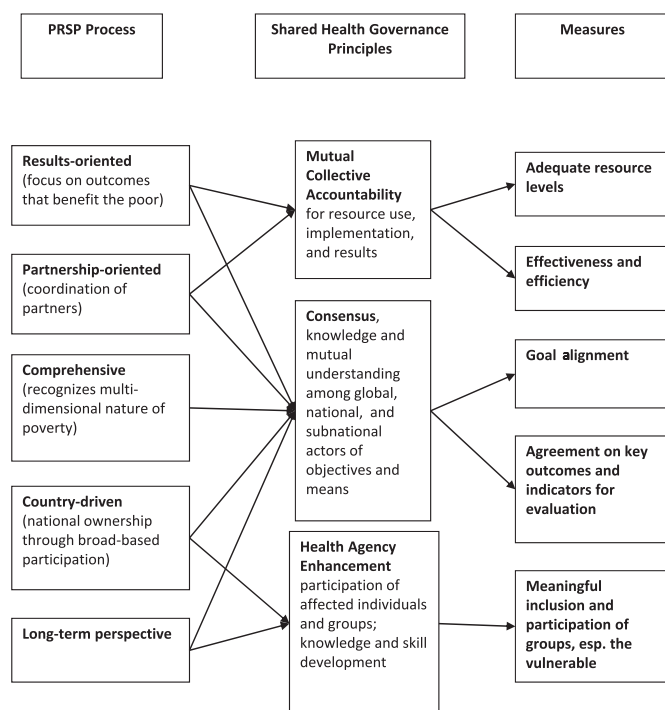


Figure 1 Principles and measurements of shared health governance and their application to the poverty reduction strategy papers (PRSP) process.

Strategy Papers process.⁷⁰ Figure 1 illustrates how these concepts interrelate.

International health relations at the country level: the ministries of health in Kenya and Mexico

In March 2006, the Government of Kenya established the Office for International Health Relations in the Ministry of Health. The government explicitly noted that Kenya's health policy includes both domestic and foreign policy, and that bilateral and multilateral cooperation is a significant component of its health policy. The primary function of the Office is 'coordinating activities with and keeping records of' entities including 'Global organisations, WHO, United Nations, The Common Wealth Secretariat', regional organisations and others.⁷¹ Its mandate is to 'ensure that the Ministry of Health fully participates in all activities and therefore enhance the benefits that Kenya accrues from these international organisations.'⁷¹ It focuses on Kenya's interrelationships with global health actors and how Kenya can most effectively fulfil domestic and international health obligations. The Office of International Health Relations is also responsible for making sure that the Kenyan Ministry of Health's activities 'are internally coherent and consistent with government-wide policies and ... that Kenyan health policy and priorities are reflected in international activities.'⁷¹ Kenya is not the only example; the Mexican Ministry of Health has an Office of International Affairs,^{72 73} which is aimed at health improvement of both Mexican and global citizens. It also focuses on partnerships with other countries, multilateral institutions and NGOs in an effort to align domestic and global health policy with the global public health agenda. These are but two examples and, along with other countries, offer insight regarding the interface between global and national health policy.

The Kenyan Office of International Health Relations and Mexican Office of International Affairs are consistent with GHG as SHG. They envision, at least on paper, a way for the state to

What is already known on this subject

- ▶ Hyper-pluralism and fragmentation in global health require coordination and control. Donor-driven development inadequately addresses health needs and weak institutional capacity in recipient countries.
- ▶ Unclear allocation of responsibility in global health hinders accountability and fulfilment of obligations for health; no centralised global health coordinating structures, norms or values have been institutionalised.

What this study adds

- ▶ This article develops select components of a model of shared health governance to better achieve global health cooperation based on shared ethical commitments.
- ▶ A global health constitution allocating responsibility to global and national health actors is proposed and indicators for assessing shared health governance principles are described.

what I would call *manage up and across* and coordinate its efforts in global health. SHG furthers managing up and across along with managing down because it enhances both the individual and collective health agency of the populations served and locates legitimacy and accountability with the nation-state, where primary responsibility rests. It therefore enables Kenyan and Mexican citizens, through their own representation, to share in governance, maintaining their own sovereignty and agency, in conjunction with the goals and objectives of the global health community. Countries may also band together to manage up or to manage across, as is the case with emerging countries in GHG.⁷⁴ Table 3 compares SHG components with those of the current global health regime.

CONCLUSION

Global health actors should work together with state actors and institutions to correct and avert global health injustices through a framework of SHG resting on shared ethical commitments. GHG can be seen as a temporal problem, which first requires a large role for global health institutions to serve key functions until states are able to shoulder greater responsibilities. The eventual goal is a global health system in which national governments and global health institutions can work together as parts of a complex system to adjust to changing needs and environments (see table 2). This article has put forth a few key features of GHG as SHG; further development of this framework is forthcoming.⁷⁷

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REFERENCES

- Ruger JP. Global health justice. *Public Health Ethics* 2009;**2**:261–75.
- Ruger JP. *Health and Social Justice*. Oxford: Clarendon Press, 2009.
- United Kingdom House of Lords. Chapter 3: International health: the institutional labyrinth. *Select Committee on Intergovernmental Organisations First Report*, 2008. <http://www.publications.parliament.uk/pa/ld200708/ldselect/ldintergov/143/14306.htm> (accessed 2 Jun 2011).
- Drager N. Global health governance. *Presentation for the Global Health Diplomacy Summer Course at The Graduate Institute*. Geneva, Switzerland, 2009. http://graduateinstitute.ch/webdav/site/heid/shared/summer/GHD%202009%20Summer%20Course/Drager_Global%20Health%20Governance_June%2015_2009.pdf (accessed 2 Jun 2011).
- Brooks A, Cutts F, Justice J, et al. *Policy Study of Factors Influencing the Adoption of New and Underutilized Vaccines in Developing Countries*. Geneva and Washington, DC: Children's Vaccine Initiative and USAID, 1999.
- Walt G, Buse K. Global cooperation in international public health. In: Merson M, Black R, Mills A, eds. *International Public Health: Diseases, Programs, Systems, and Policies*. 2nd edn. Sudbury, MA: Jones and Bartlett, 2006:649–80.
- Mayhew SH, Walt G, Lush L, et al. Donor agencies' involvement in reproductive health: saying one thing and doing another? *Int J Health Serv* 2005;**35**:579–601.
- Ruger JP. Toward a theory of a right to health: capability and incompletely theorized agreements. *Yale J Law Humanit* 2006;**18**:273–326.
- Ruger JP. Normative foundations of global health law. *Georgetown Law J* 2008;**2**:423–43.
- Ng N, Ruger JP. Global health governance at a crossroads. *Glob Health Governance* 2011;**3**:1–37.
- Smith RD. Global public goods and health. *Bull World Health Organ* 2003;**81**:475.
- Kaul I, Faust M. Global public goods and health: taking the agenda forward. *Bull World Health Organ* 2001;**79**:869–74.
- Chen L, Evans T, Cash R. Health as a global public good. In: Kaul I, Grunberg I, Stern M, eds. *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999:284–304.
- Treatment Action Campaign v. Minister of Health, 2002 (4) BCLR 356(T) (South Africa).
- Annas GJ. The right to health and the nevirapine case in South Africa. *N Engl J Med* 2003;**348**:750–4.
- Fidler DP. Fighting the axis of illness: HIV/AIDS, human rights, and U.S. foreign policy. *Harv Hum Right J* 2004;**17**:99–136.
- Buchanan A, Decamp M. Responsibility for global health. *Theor Med Bioeth* 2006;**27**:95–114.
- O'Neill O. The dark side of human rights. *Int Aff* 2005;**81**:427–39.
- The Global Fund. *Making a Difference: Global Fund Results Report 2011*. Executive Summary. www.theglobalfund.org/documents/publications/progress_reports/Publication_2011Results_ExecutiveSummary_en/ (accessed 5 Aug 2011).
- Garrett L. The challenge of global health. *Foreign Aff* 2007;**86**:14–38.
- Organisation for Economic Co-operation and Development (OECD). *Harmonizing Donor Practices for Effective Aid Delivery. DAC Guidelines and Reference Series*. Paris: OECD, 2003. <http://www.oecd.org/dataoecd/0/48/20896122.pdf> (accessed 7 Feb 2011).
- Brugha R, Donoghue M, Starling M, et al. The Global Fund: managing great expectations. *Lancet* 2004;**364**:95–100.
- McInnes C, Lee K. Health, security and foreign policy. *Rev Int Stud* 2006;**32**:5–23.
- Blouin C. Economic dimensions and impact assessment of GATS to promote and protect health. In: Blouin C, Drager N, Smith R, eds. *International Trade in Health Services and the GATS*. Washington, DC: World Bank, 2006:169–202.
- Kaler A, Watkins SC. Disobedient distributors: street-level bureaucrats and would-be patrons in community-based family planning programs in rural Kenya. *Stud Fam Plann* 2001;**32**:254–69.
- Global Health Watch. *Global Health Watch 2005–2006: an Alternative World Health Report*. London: Zed Books, 2005.
- Woldehanna S, Ringheim K, Murphy C, et al. *Faith in Action: Examining the Role of Faith-Based Organizations in Addressing HIV/AIDS*. Washington, DC: Global Health Council, 2005.
- Walt G, Spicer N, Buse K. Mapping the global health architecture. In: Buse K, Hein W, Drager N, eds. *Making Sense of Global Health Governance: a Policy Perspective*. Hampshire, UK: Palgrave Macmillan, 2009:47–71.
- Frenk J, Sepúlveda J, Gomez-Dantes O, et al. The future of world health: the new world order and international health. *BMJ* 1997;**314**:1404–7.
- Swidler A. Syncretism and subversion in AIDS governance: how locals cope with global demands. *Int Aff* 2006;**82**:269–84.
- Jackson J. *The Globalizers: Development Workers in Action*. Baltimore, MD: Johns Hopkins University Press, 2005.
- Cooley A, Ron J. The NGO scramble: organizational insecurity and the political economy of transnational action. *Int Secur* 2002;**27**:5–39.
- Bebbington A. Donor-NGO relations and representations of livelihood in non-governmental aid chains. *World Dev* 2005;**33**:937–50.
- Kickbusch I. Action on global health: addressing global health governance challenges. *Public Health* 2005;**119**:969–73.
- Pecoul B, Chirac P, Trouiller P, et al. Access to essential drugs in poor countries: a lost battle? *JAMA* 1999;**281**:361–7.
- Thomas C. Trade policy and the politics of access to drugs. *Third World Q* 2002;**23**:251–64.
- Buse K, Naylor C. Commercial health governance. In: Buse K, Hein W, Drager N, eds. *Making Sense of Global Health Governance: a Policy Perspective*. London: Palgrave Macmillan, 2009:187–208.
- Beaglehole R, Yach D. Globalisation and the prevention and control of non-communicable disease: the neglected chronic diseases of adults. *Lancet* 2003;**362**:903–8.
- Lewis M. *Governance and Corruption in Public Health Care Systems. Working Paper Number 78*. Washington, DC: Center for Global Development, 2006.
- Shah A. Foreign aid for development assistance. 2011. <http://www.globalissues.org/article/35/us-and-foreign-aid-assistance> (accessed 7 Feb 2011).
- Deen T. Three decades of missed aid targets. 2005. <http://ipsnews.net/interna.asp?idnews=28348> (accessed 7 Feb 2011).
- Huang Y. Pursuing health as foreign policy: the case of China. *Indiana J Global Leg Stud* 2010;**17**:105–46.
- Barrow O. International responses to famine in Ethiopia 1983–85. In: Barrow O, Jennings M, eds. *The Charitable Impulse: NGOs and Development in East and North-East Africa*. Bloomfield, CT: Kumarian Press, 2001:63–80.
- Siddiqi J. *World Health and World Politics*. Columbus, SC: University of South Carolina press, 1995.
- Horning N. Strong support for weak performance: donor competition in Madagascar. *Afr Aff* 2008;**107**:405–31.
- Levine R. What Works Working Group. Controlling onchocerciasis in Sub-Saharan Africa. In: Levine R, What Works Working Group, eds. *Millions Saved: Proven Successes in Global Health*. Washington, DC: Center for Global Development, 2004:57–64.
- Katabarwa MN, Habomugisha P, Richards FO Jr, et al. Community-directed interventions strategy enhances efficient and effective integration of health care delivery and development activities in rural disadvantaged communities in Uganda. *Trop Med Int Health* 2005;**10**:312–21.
- Okie S. Fighting HIV: lessons from Brazil. *N Engl J Med* 2006;**354**:1977–81.
- De Mattos R, Junior V, Parker R. World Bank strategies and the response to AIDS in Brazil. *Divulgação em Saude para Debate* 2003;**27**:215–27. <http://www.columbia.edu/itc/hs/pubhealth/p8725/mattos.pdf> (accessed 10 Feb 2011).
- Heymann DL, Rodier GR. Global surveillance of communicable diseases. *Emerg Infect Dis* 1998;**4**:362–5.
- Levine R. What Works Working Group with Molly Kinder. *Millions Saved: Proven Successes in Global Health*. Washington, DC: Center for Global Development, 2007.
- Voelker R. Global partners take two steps closer to eradication of guinea worm disease. *JAMA* 2011;**305**:1642.
- Molyneux D. Lymphatic filariasis (elephantiasis) elimination: a public health success and development opportunity. *Filaria J* 2003;**2**:13. <http://www.filiarjournal.com/content/2/1/13>.
- Moss WJ, Griffin DE. Global measles elimination. *Nat Rev Microbiol* 2006;**4**:900–8.
- World Health Organization. *Global Elimination of Measles: Report by the Secretariat*. Executive Board 125th session, provisional agenda item 5.1, EB 125/4, 2009. http://apps.who.int/gb/ebwha/pdf_files/EB125/B125_4-en.pdf
- Rosenberg M, Hayes E, McIntyre M, et al. *Real Collaboration: What it Takes for Global Health to Succeed*. Berkeley: University of California Press, 2010.
- Rawls J. *Political Liberalism*. New York: Columbia University Press, 1993.
- Goldstein J, Keohane R, eds. *Ideas and Foreign Policy: Beliefs, Institutions, and Political Change*. Ithaca, NY: Cornell University Press, 1993.
- Goldstein J, Keohane R. Ideas and foreign policy: an analytical framework. In: Goldstein J, Keohane R, eds. *Ideas and Foreign Policy: Beliefs, Institutions, and Political Change*. Ithaca, NY: Cornell University Press, 1993:3–30.
- Garrett G, Weingast B. Ideas, interests, and institutions: constructing the European Community's internal market. In: Goldstein J, Keohane R, eds. *Ideas and Foreign Policy: Beliefs, Institutions, and Political Change*. Ithaca, NY: Cornell University Press, 1993:173–206.
- Jackson R. The weight of ideas in decolonization: normative change in international relations. In: Goldstein J, Keohane R, eds. *Ideas and Foreign Policy: Beliefs, Institutions, and Political Change*. Ithaca, NY: Cornell University Press, 1993:111–38.
- Haas P. Introduction: epistemic communities and international policy coordination. *Int Organ* 1992;**46**:1–35.
- De Young R. Recycling as appropriate behavior: a review of survey data from selected recycling education programs in Michigan. *Resour Conservat Recycl* 1990;**3**:253–66.
- Hopper J, Nielsen J. Recycling as altruistic behavior: normative and behavioral strategies to expand participation in a community recycling program. *Environ Behav* 1991;**23**:195–220.
- Bowles S, Hwang S. Social preferences and public economics: mechanism design when social preferences depend on incentives. *J Public Econ* 2008;**92**:1811–20.
- Ruger JP. Shared health governance. *Am J Bioeth* 2011;**11**:32–45.
- Jamison DT, Frenk J, Knau F. International collective action in health: objectives, functions, and rationale. *Lancet* 1998;**351**:514–17.

68. **Ruger JP.** Rethinking equal access: agency, quality, and norms. *Glob Public Health* 2007;**2**:78–96.
69. **Ruger JP.** Ethics in American health 2: an ethical framework for health system reform. *Am J Public Health* 2008;**98**:1756–63.
70. **Wachira C, Ruger JP.** National poverty reduction strategies and HIV/AIDS governance in Malawi: a preliminary study of shared health governance. *Soc Sci Med.* 2011;**72**:1956–64.
71. **Kenya Office for International Health Relations.** *International Health Relations.* Nairobi: Ministry of Health. 2006.
72. **Secretaria de Salud de Mexico.** Organization chart. 2010. http://portal.salud.gob.mx/descargas/pdf/organigrama_salud.pdf (accessed 2 Jun 2011).
73. **Pan American Health Organization (PAHO).** U.S.-Mexico diabetes prevention and control project: intervention pilot project for phase 2, 2003. <http://www.fep.paho.org/newdiabetes/spanish/Documents/INTERVENTION%20%20PHASE%20II.htm> (accessed 2 June 2011).
74. **Ruger JP, Ng N.** Emerging and transitioning countries' role in global health. *St. Louis Univ J Health Law Policy* 2010;**3**:253–89.
75. **Innes JE, Booher DE.** Consensus building and complex adaptive systems: a framework for evaluating collaborative planning. *J Am Plann Assoc* 1999;**65**:412–23.
76. **Dooley KJ.** A complex adaptive systems model of organization change. *Nonlinear Dynam Psychol Life Sci* 1997;**1**:69–97.
77. **Ruger JP.** *Global Health Justice and Governance.* Oxford: Clarendon Press, in press.