

Wall Summer Institute for Research (WSIR) 2007
Civil Society Organizations and Global Health Governance

Monday June 25th, 2007

What are the strategies, resources, consequences and challenges of civil society organizations in global health governance?

**The Transformation of Global Health Governance:
Utilization and Expansion of Control Strategies Since the 1990s**

By:
Mark W. Zacher
&
Tania J. Keefe

Abstract: The paper analyses the transformation of global health governance that has occurred since the early 1990s. It identifies and explains three strategies that have been central to recent changes in the health regime. These strategies are: surveillance of disease outbreaks; rule-making (including issuing recommendations); and providing financial and material assistance to improve health conditions. The changes have been particularly dramatic with regard to surveillance and assistance, and in both of these spheres civil society organizations (CSOs) been instrumental. CSOs have had major impacts on surveillance because of the revolution in information technology that has made it difficult for governments to stymie the flow of information from their territories. CSOs have been central to the dramatic increase in assistance efforts because of their ability to mobilize financial resources and their experience in working directly with victims of disease. CSOs have also made significant contributions to rule-making through the expertise of their medical specialists, their mobilization of financial resources, and their leverage that derives from their political pressure in national and international settings.

Throughout history, humans have been at the mercy of disease causing microbes, viruses and parasites. Indeed, for the vast majority of our history, we have had virtually no understanding of the causes of diseases let alone how to cure them. In the past century and a half, however, knowledge regarding human health has increased at an entirely unprecedented rate. This knowledge has allowed us to prevent, treat and cure diseases that used to decimate entire civilizations. In fact, medical knowledge increased so dramatically in the late 1960s and early 1970s that many health officials genuinely believed that humans were on the verge of eliminating infectious diseases once and for all (especially with the eradication of smallpox in 1977). While the discovery of the HIV/AIDS virus in 1981 put a stop to this kind of naively optimistic thinking, there are measurable indicators (such as increased life expectancy and the reduction of infectious diseases in developed countries) that prove humans are now capable of significantly improving their own health. However, improvements in global health have not been distributed equally, and there is now a growing worldwide movement to improve health for all.

From Henry Dunant to Florence Nightingale, there have always been noble individuals willing to dedicate their lives to alleviate the suffering of those in need. However, in the past two decades, improving global health (particularly for those living in poor countries) has moved away from being the focus of a few driven individuals and garnered the attention of rock stars, philanthropic foundations, governments, banks, and thousands upon thousands of civil society organizations. There is now more money being spent on health than ever before in history, and that money is coming from a wider variety of sources than ever before. As more and different types of organizations have become involved, the sphere of health governance has become deeper, more complex and more important. This paper aims to provide a basis for discussion on the strategies, resources, consequences and challenges that are presented by the advent of civil society organizations (CSOs) in the realm of global health.

A brief overview of what we mean by governance is necessary before we describe the strategies used to achieve it. The concept of governance as applied to cooperation among international actors was first introduced by James Rosenau in the volume Governance without Government. (1992) He wrote that:

[G]overnance is not synonymous with government. Both refer to purposive behavior, to goal-oriented activities, to systems of rule; but government suggests activities that are backed by formal authority, by police powers to insure the implementation of duly constituted policies, whereas governance refers to activities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities that do not necessarily rely on police powers to overcome defiance and attain compliance. (Rosenau, 1992, 4)

John Ruggie addressed the same definitional issue in a similar manner, stating that “governance, at whatever level of social organization it may take place, refers to conducting the public’s business: to the constellation of authoritative rules, institutions and practices by means of which any collectivity manages its affairs.” (Ruggie, 2005, 307) He went on to stress something that is very important in this particular discussion—namely, the importance of governance participants that are transnational: “the ‘public’ involved in the business of global governance now routinely includes not only states but also social actors for which territoriality is not the cardinal organizing principle or national interests the core driver.” (Ruggie, 2005, 308) Keohane and Nye approach the definition of governance from a slightly different perspective. They state that: “Governance is “the processes and institutions, both formal and informal that guide and restrain the collective activities of a group.” (Keohane and Nye, 2000, 12) Combining the perspectives of these authors, we define governance as formal and informal rules, sanctions, and institutions that states and non-state actors adopt to manage their relations. Rules include hard and soft law—the latter including recommendations and guidelines.

Strategies

This paper identifies and examines three strategies that are used by actors in the global health arena to accomplish their goals of reducing the incidence of infectious disease and improving human health on a global level. While we argue elsewhere that

these strategies are used, to varying degrees, by all actors in global health¹, this paper focuses on how they are employed by civil society actors in particular. With regard to health governance, the three strategies are:

- Promoting **surveillance** of disease outbreaks by governmental and non-governmental actors;
- Adopting binding and non-binding **rules** that prescribe and proscribe particular behaviors; and
- Providing financial and material **assistance** for emergency interventions and long-term programs.

Surveillance

Surveillance often does not receive a great deal of attention in analyses of global health politics and collaboration, but it is a crucial area of activity in controlling the spread of infectious diseases. Traditional surveillance arrangements, which were set out in the first versions of the International Health Regulations in the early 20th century, gave states veto power over the ability of international organizations² to disseminate information regarding disease outbreaks on their territory or their national carriers (i.e., ships and planes). According to the IHR, states were obligated to report outbreaks of only three epidemic diseases—plague, cholera, and yellow fever—to the OIHP and WHO, but the organizations were not permitted to share that information with other member states if the state of origin did not give its approval. Furthermore, despite the obligation, states often did not report outbreaks of the three diseases on their territory because they legitimately feared that other countries would impose expensive embargoes on the entry of their citizens and goods. During health conferences throughout the 20th century, there were numerous discussions about increasing the number of diseases that should be reported, but the proposals were opposed by a significant number of countries—again due to concerns regarding punitive reactions by the international community. (Goodman, 1971, 84-200; Fidler, 1999, 21-80)

¹ Forthcoming publication entitled “The Politics of Global Health Governance: United by Contagion” Palgrave Macmillan, 2008.

² States reported to the Organisation Internationale d’Hygiene Publique (OIHP) from 1907 until 1948, and the World Health Organization (WHO) after 1949.

Another important factor that contributed to the weakness of the traditional surveillance system was that state governments had a very large degree of control over what information was reported to global institutions. If states did not want the international community to learn of a disease outbreak, they simply did not share the information. As there was no other way for the information to be disseminated, many outbreaks went undiscovered and unknown by the international community until it was too late to control them. This often resulted in outbreaks spreading from the source of infection to numerous countries and lasting significantly longer than if it had been contained at the beginning. For example, cholera is a very easy disease to treat, and if outbreaks are discovered early, they can be controlled within days; however, in the 19th century it was common for cholera outbreaks to last for several years and to affect dozens of countries. (Goodman, 1971, 50-68; Howard-Jones, 1975, 71-85) In the traditional surveillance arrangement, CSOs played a minimal role or none at all. In fact, the only effective surveillance network active in the mid-20th century was the WHO Global Influenza Surveillance Network, established in 1952, but it was (and remains) a network of state-run medical laboratories, and does not include civil society organizations.

The transformation of the surveillance regime for infectious diseases can be traced to the 1990s and the revolutionary impacts of developments in communications technology. After the advent of email and the internet, the level of control that states had over information was dramatically reduced. Quite simply, states were no longer able to completely block the spread of information regarding disease outbreaks. This, combined with an increasing awareness of frightening emerging and re-emerging infectious diseases (such as HIV/AIDS, Ebola hemorrhagic fever, and Hantavirus), made information-sharing a priority for medical experts and health workers that were not necessarily affiliated with the government of the country in which an outbreak occurred. Evidence of how far this phenomenon has progressed was unequivocally demonstrated by the SARS crisis of 2003. The Chinese government deliberately attempted to prevent the release of information regarding the outbreak from coming to the attention the international community. Nevertheless, information quickly reached WHO through nongovernmental networks. This information then led the government to admit WHO

officials into China to study the outbreak. The handling of this information and the global media enhanced WHO's legitimacy to the extent that it was able to release Travel Advisories, which had direct and significant impacts on global trade and travel. WHO even influenced domestic politics in China, including the dismissal of the Health Minister and the Mayor of Beijing. (Knobler, 2004; Fidler, 2004)

Starting in the 1990s, cracks began to develop in the traditional surveillance regime prompted by the growth of new types of surveillance organizations. The first notable institutional change was the formation in 1994 of the **Program for Monitoring Emerging Diseases (ProMED)**, which included an electronically linked network of health professionals throughout the world, called ProMED-Mail. It was (and is) "an Internet-based reporting system dedicated to rapid global dissemination of information on outbreaks of infectious diseases and acute exposures to toxins that affect human health, including those in animals and in plants grown for food or animal feed." (ProMED Website) It accepts information from a variety of sources—not just government sources—throughout the world. The information is then vetted by experts and published on the ProMED-Mail website and distributed to its subscribers. It was (and is) a network of nongovernmental institutions and private health workers that monitors disease outbreaks and disseminates information on them through a website based in the USA. It has grown steadily, and now links tens of thousands of medical experts throughout the world. From an historical perspective, Pro-MED is a very important institution since it was the first major nongovernmental body to distribute news of outbreaks throughout the world. (Zacher, 1999; Grein, 2000; WHO, 2003; Pro-MED Website)

The second major institutional development was the creation of the Global Public Health Information Network (GPHIN) in 1997 by the Canadian government with cooperation from the World Health Organization. GPHIN monitors media websites from around the globe for information on disease outbreaks, bio-terrorism threats, contaminated food and water supplies, nuclear material leaks, and natural disasters. It currently scans news reports in Arabic, English, French, Russian, simplified and traditional Chinese, and Spanish, but there are plans to further enhance GPHIN such that

it can scan sources in up to 100 languages. (Economist, 2006, 66) A sophisticated computer program filters the reports for relevance and accuracy; and they are then analyzed by officials working for the Public Health Agency of Canada and are released to GPHIN subscribers who further disseminate the information. One of the key characteristics of GPHIN, which sets it apart from other surveillance systems, is that it operates around the clock. News sources are scanned 24 hours a day, and pertinent information is released to appropriate health experts almost as soon as it is discovered. GPHIN's importance to current disease containment issues can be clearly demonstrated by the fact that information on 40 percent of the approximately 250 outbreaks that WHO investigates every year comes from GPHIN. (National Advisory Committee, 2003, 198; WHO, 2003, 5-6; GPHIN Website)

A third particularly important institutional development in the surveillance regime was the founding of the Global Observation Alert Response Network (GOARN) in 2000. It was created by the World Health Organization, and it links over 70 health-oriented groups—many of them being CSOs. GOARN actually began to gather and distribute information from nongovernmental sources before this activity was officially approved by a revised version of the International Health Regulations in 2005. It was accepted because of developments in technology-driven surveillance practices and an increase in serious disease outbreaks (particularly the SARS outbreak of 2003) that highlighted the need for improved global surveillance capabilities. In highlighting the importance of GOARN, it is important to note the key terms in the organization's title that include not only 'observation', but also 'alert' and 'response'. That is to say, GOARN integrates an increase in more extensive knowledge of disease outbreaks with the development of response mechanisms. Thus GOARN integrates a large array of health organizations with differing skill-sets and different types of disease control activities. If there is any institution that highlights the fact that WHO is best conceived as an 'organization or organizations', it is GOARN. (Grein, 2000; WHO, 2003, 8-11; GOARN Website)

The most important legal changes in global surveillance collaboration emanated from the revision of the International Health Regulations in 2005. (It enters into force in

2007.) The new Regulations greatly increase the number of disease outbreaks that states are asked to report to the WHO, and it officially approves the right of WHO to accept and disseminate information from nongovernmental sources. The 2005 IHR establishes two lists of specific diseases, one of which contains a handful of diseases (such as smallpox and SARS) that are known to cause dangerous pandemics and so always require immediate reporting and containment response. The other list includes diseases that may sometimes cause pandemics (such as cholera and plague), and so must be investigated but not necessarily made public to all member states. Furthermore, in recognition of the growing threat from previously unknown newly emerging diseases, there is also a broad mandate that states and WHO should report any disease outbreak that could constitute “a public health emergency of international concern”. There are several criteria that determine if an incident can be judged a public health emergency of global concern, including whether or not there is a significant risk of international spread and/or of international travel or trade restrictions. (2005 IHR, Arts 5-7 Annex II; Fidler, 2004)

There are some other provisions in the 2005 IHR that strengthen the surveillance regime. First, the new IHR requires that all member states designate a National IHR Focal Point which will facilitate communications concerning disease outbreaks. Concomitantly, WHO is required to create a WHO IHR Contact Point which will coordinate communications between WHO headquarters, regional offices, and states during outbreaks. The 2005 IHR also requires that members states develop improved capacity to “detect, assess, notify, and report” disease outbreaks. (2005 IHR, Art 5) This clause in the IHR is important because many developing countries do not have sufficient capabilities to engage in effective surveillance and reporting. (2005 IHR, Annex I) Poor countries in Asia and Africa, where dangerous outbreak diseases like SARS and Ebola are endemic, often lack even basic surveillance capabilities. Microbes that cause disease have never respected borders; however, given that advances in transportation have made it possible to cross the globe in a matter of hours, it has become more important than ever to learn of disease outbreaks no matter where they occur. Surveillance must meet first world standards even in third world countries to truly be effective.

As noted above, CSOs have been important components of the new surveillance regime and have also had major impacts on its evolution. It is arguable that Pro-MED, GPHIN and GOARN would not exist today without CSOs acting as catalysts for information dissemination in the early 1990s. The 2005 International Health Regulations (while an intergovernmental treaty) permit the gathering and dissemination of information based on information from nongovernmental sources—including CSOs. Surveillance is certainly a sphere of international collaboration that has been revolutionized by the presence and activities of civil society organizations.

Rule-Making

Rule-making is central to the development of international regimes, and rules that govern regimes are often conceptualized as being ‘hard law’ or ‘soft law’. Hard law refers to prescriptions and proscriptions that are legally binding, and soft law generally falls under the rubrics of ‘recommendations’ and ‘guidelines’. The degree of hardness or softness can be classified in terms of three criteria: the clarity of a legal obligation; the delegation of dispute settlement to judicial or other legally binding decision-making bodies; and the precision of the rules. (Abbott and Snidal, 2000; Brown Weiss, 2000; Charney, 2000) Throughout the 20th and early 21st centuries, international health law would have to be classified as predominantly soft law. For example, the decisions of the World Health Assembly (WHA) have purely recommendatory status, and they vary a great deal in their influence. Generally those decisions that refer to specific health problems and are very detailed are regarded as more influential. With regard to the International Health Regulations (which have existed since 1903) they are technically legally binding treaties, but they have been regarded by most countries as recommendations because the WHA has no strong sanctioning mechanism to encourage compliance with the rules, and punishing states for not helping themselves is illogical.

An important sub-body of the WHA is the WHO Global Influenza Network, which was created in 1952. Its main task is to track mutations of the influenza virus and develop an effective vaccine against the strains anticipated to circulate in any given flu season. As such, the Network requests that members regularly send samples from

influenza patients to one of WHO's 117 National Influenza Centers. These samples are forwarded to one of the four WHO Collaborating Centers for influenza research, located in the US, the UK, Japan and Australia. Based on these samples, a vaccine is recommended by WHO officials for widespread use. An indicator of the Network's influence and credibility is that over 250 million doses of influenza vaccine approved by the WHO Influenza Network are produced each year. (WHO Global Influenza Network Website) It must be noted that the production of the vaccine is voluntary on the part of states as the Network's recommendations are not legally binding.

Other sub-bodies of the WHA whose recommendations often have significant influence are the over 900 WHO Collaborating Centers, which are national laboratories that have agreed to share expertise on particular medical problems. Staff members from these Collaborating Centers are often included in WHO committees that recommend treatment protocols or remedial programs for the treatment and/or containment of diseases. While these medical recommendations are not legally binding, there is a very high level of compliance with them because states generally recognize the expertise of the associated WHO medical laboratories. Essentially, there is no need to pursue the politically difficult process of developing hard law treaties on medical protocols, as states voluntarily choose to follow these types of WHO recommendations as they are in their own best interest. While WHO Collaborating Centers are state-run laboratories, they often include personnel from universities and research institutes that are supported by governmental and nongovernmental sources.

Over the last two decades there have been some important additions to the traditional model of WHO rule-making. First of all, since the 1980s, and even more particularly since the 1990s, there has been a dramatic increase in the number of global health partnerships (GHPs) for specific infectious diseases and other general health issues. While their main function is to provide financial and material assistance to reduce the incidence of specific diseases, they also provide advice for controlling outbreaks. The line between providing assistance to aid in the battle against diseases and developing recommendations for controlling them is often a narrow one.

Second, and connected to the previous point, since the 1980s the World Bank has become deeply involved in global health issues, and it has worked closely with CSOs and various global health partnerships. The Bank has an important role in promoting particular health and economic strategies and in exerting pressure on states to comply with their recommended policies. The Bank effectively practices a policy of ‘conditionality’ in promoting compliance with its recommendations for health systems and interventions. That is to say, states and nongovernmental actors only receive financing for health programs if they adopt policies that the Bank supports. In the case of the World Bank’s promotion of recommendations or guidelines on national health policies, the CSOs have had a crucial impact on their compliance. Their influence is grounded in their financial leverage through conditional grants and loans. In fact, Paul Shaw has pointed to the very strong influence of CSOs on Bank policy with regard to debt relief, aid effectiveness, human capital and knowledge transfer, and reaching the Millennium Development Goals. CSOs are known for their strong adherence to policies of economic efficiency and ‘good governance’. (Pincus and Winters, 2002; Shaw, 2007)

A third and final change regarding rule-making in global health concerns the emergence of the World Trade Organization and its promotion of trade law that impacts global health practices—particularly intellectual property rights law. In 1995, after ten years of negotiations, the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) entered into force. Among other things, TRIPS established new patent protection laws designed to remain in effect for at least 20 years. As a patent is, in essence, a temporary legal monopoly, it directly and deliberately causes higher than market-driven prices for products. Soon after TRIPS entered into force, anti-retroviral drugs (ARVs) were invented to treat AIDS patients, and these drugs fell under TRIPS rules concerning patents. This resulted in ARVs costing approximately \$10,000 per year per patient, meaning that, in general, only patients in developed countries could afford the drugs. The manifest inequality and unfairness of HIV/AIDS victims being denied access to drugs that could dramatically improve their quality of life simply because of their

nationality motivated numerous civil society organizations, including MSF, CPTech, and Oxfam, to launch a movement for improved access to essential medicines.

The TRIPS Agreement contains certain clauses or loopholes that are designed to allow for the protection of public health. Specifically, Article 8(1) states that “members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health...”. Article 27.2 allows a government to deny patent protection for specific inventions if they are necessary to protect human, animal or plant life or health...in order to protect ‘*ordre public*.’³ Article 30 states that: “[M]embers may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with normal exploitations of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.” (WTO, “TRIPS Agreement” 1995) Third and lastly, Article 31 of the Agreement is particularly important to the issue of access to essential medicines. It is entitled “Other Use without Authorization of the Right Holder”, and it sets out the conditions under which a product that is still under patent can be produced by an entity other than the patent-holder. The commonly used term for this process is “compulsory licensing”, and it permits a government to issue a license to a third party, allowing the production of a patented product during a national emergency. (Doha Declaration, 2001, Arts 5(b) and 6)

These loopholes, although not comprehensive, should have given developing countries sufficient leeway to adhere to TRIPS but allow public health to be protected, and for this reason many developing country governments willingly agreed to support the Agreement, especially as they were granted concessions in other trade areas. (Matthews, 2002) What happened in reality after TRIPS entered into force, however, is that certain developed countries hampered developing states’ efforts to employ the prerogatives in the accord. (Correa, 2002, 1-2) In the words of one commentator, the compulsory licensing clause in the TRIPS Agreement “was intended as a lifeline. But in practice, any country reaching for it has been handcuffed by US trade negotiators.” (Vick, 1999, A1)

³ There is no universally accepted definition of what this term means and so governments have shied away from using this provision. (Cohen, 2006, 180-181)

Therefore, a few years after TRIPS entered into force, developing countries allied with prominent CSOs active in the access issue and called for a re-iteration of the health loopholes integrated into the TRIPS Agreement which would further entrench and codify their right to use compulsory licenses and the other health clauses. The result of this effort was the release of the Doha Declaration on TRIPS and Public Health in November, 2001. The Doha Declaration was a significant victory for the developing nations and their CSO allies in that it unequivocally stated that TRIPS should not hinder the protection of public health. It “marked a watershed in international trade that demonstrated that a rules-based trading system should be compatible with public health interests.” (Correa, 2002, i) As a result “[p]ublic health advocates welcome[d] the Doha Declaration as an important achievement because it gave primacy to public health over private intellectual property and clarified WTO members’ rights to use TRIPS safeguards.” (t’Hoen, 2002, 28)⁴ The access to essential medicines issue has not yet been reconciled and there are still many areas of the accord that need further negotiation to truly allow poor people access to drugs, however, the lobbying conducted by CSOs during the negotiations leading up to the Doha Declaration clearly demonstrate that non-state actors are having a direct impact on the rules that govern international trade and international health.

Rule-making is a very complex area in which to evaluate progress in international cooperation and to evaluate the roles of CSOs. Effective rule-making has grown, but it has largely taken the form of recommendation of medical practices with regard to disease outbreaks and improvements of health systems. The developers of these recommendations and guidelines have largely been groups of medical experts which belong to various bodies and organizations (i.e.: Committees of the WHA, WHO Collaborating Centres, the WTO, GHPS, the World Bank, and bodies created by the IHR). The World Bank and some of the large GHPs are particularly important in unique in that

⁴ It should be noted that not all experts were in support of the Doha Declaration and the support it provided for compulsory licenses. Alan O. Sykes, for examples, argues that allowing developing countries exceptions to TRIPS rules will hinder their long term health goals, by continuing to not provide any incentive on the part of pharmaceutical companies to invest in R&D for new drugs to treat the diseases that are most commonly found in developing countries. (Sykes, 2002)

they control financial resources that provide them with leverage over the recipients. The global health partnerships all include CSOs, and the Bank works closely with CSOs in almost all of their projects. The development of recommendations and the promotion of compliance with them are complex, but they have had meaningful impacts.

Assistance

The provision of material and financial assistance to combat illness is not a new strategy for actors in the global health regime. In fact, this strategy is arguably the oldest and best established of the three discussed here, as there have long been experts who viewed strengthening national health systems as a more effective way of reducing the spread of diseases than imposing trans-border controls. Assistance as a governance strategy has gone through three distinct stages over the past two centuries. Throughout the 19th century, assistance was predominantly given through state controlled bi-lateral grants and projects from the rich states to their colonies. While states controlled the preponderance of funding, it should be noted that even during this early stage of the health regime, non-state actors in the form of missionaries and church organizations were deeply involved in providing direct medical assistance to diseased individuals, particularly in poor countries.

In the early-1900s, international organizations entered the global health regime and gradually became important actors making this period the second stage of the assistance regime. The first of the health oriented IOs, the International Sanitary Bureau (renamed the Pan-American Sanitary Bureau in 1923, and again renamed the Pan-American Health Organization in 1958), was created in 1902 as an inter-governmental organization designed to provide assistance and medical advice to states throughout the Western Hemisphere. The League of Nations Health Organization provided very significant aid to nations suffering from disease outbreaks in the interwar period, and thus set important precedents for the role of international organizations in providing health assistance. In 1949, the establishment of the World Health Organization marked a deeper international commitment to health cooperation. The authority and legitimacy of the WHO was greatly strengthened in 1977 with the successful end to the immensely

effective Smallpox Eradication Program. WHO legitimacy was successfully tested again in 2003 during the SARS campaign.

Unlike the surveillance and rule-making areas, CSOs have been involved in providing health assistance for many decades. A small number of powerful nongovernmental groups also played important roles in the health regime in the 20th century. The influential Rockefeller Foundation was very active in improving health conditions in Latin America starting in 1913. The Foundation's most notable achievement was the clearing of malaria from the Canal Zone, but it also made major accomplishments in controlling other diseases including hookworm and yellow fever. Its greatest contributions were in Mexico where it influenced not only the control of diseases, but health legislation as well. (Williams, 1969; Rockefeller Foundation Official Website) The Rockefeller Foundation's work reflected the economic and political concerns of the US government and business in Latin America during much of the 20th century. In fact, if it had not been for its contributions to US economic and political interests, it is doubtful whether the Foundation's contributions to disease eradication would have taken place. While some might question the nobility of the economic motivation to provide health assistance, it could be argued that representatives of the Rockefeller Foundation were ahead of their time in recognizing the important links between health and economic development.

The Pasteur Institute was founded in 1887 and was another important non-state provider of assistance during the 20th century. In many ways, it was a Francophone-world equivalent to the Rockefeller Foundation as most of the institutes were in French colonies. Although somewhat autonomous, it received much funding from the French government that was used for its overseas medical initiatives. It was active in conducting health research and providing advice, but it also sponsored local health projects. A Pasteur official provided a positive picture of the health programs when he stated that "if Europeans can live safely in hostile Africa and the Far East, if morbidity and mortality decrease in a striking way for native populations, all these transformations must be attributed to colonial medicine." (Moulin, 1995, 259) This comment certainly exhibits

the linkages between Western states' health assistance and their political and economic interests.

Since the 1990s, we have entered the third phase of the assistance dimension of the global health regime. Generally speaking, we have witnessed two dramatic changes in the field of international health over the quarter century, and these changes have fundamentally altered the nature, methodology, and scope of collaboration with regard to international assistance. First, while the global health agenda has always had a strong moral and humanitarian draw, it is only within the recent past that convincing linkages have been made between health and economic development and between health and security. These linkages have resulted in health issues being given much more prominence in government and governance agendas. (National Intelligence Council, 2000; Ban, 2001; Commission on Macroeconomics and Health, 2001; Brower and Chalk, 2003; Institute of Medicine, 2003, Buse et al, 2003)

Second, assistance programs have changed dramatically from being dominated by state-to-state relations to integrating a plethora of different types of actors. While the above few paragraphs indicate that non-state actors have long been involved in the provision of health assistance, since 1990 the number of health-oriented CSOs has increased exponentially, and in a remarkably short period of time, they have become integral players expanding and redefining the scope of assistance and collaboration. CSOs have lobbied governments, raised billions of dollars, and have mobilized thousands of supporters and volunteers from around the world. (Buse et al, 2003, 268-269; WHO, 2002)

One way in which CSOs have had an extremely positive impact on the global health regime is their consistent focus on reducing the incidence of diseases within state boundaries. Governments and IOs have often focused on establishing regulations that are supposed to prevent diseases from crossing borders, such as quarantine regulations and the requirement that ships carry certificates of health. Civil society groups such as the Rockefeller Foundation, however, have since the beginnings of the health regime

recognized the fact that preventing disease-causing microbes from crossing borders is virtually impossible, and that a much more effective health governance strategy is to reduce the rates of disease outbreaks within a country. When a country has a good medical infrastructure (including high sanitation standards, access to clean water, and plentiful and well trained health care workers) disease outbreaks occur less frequently, and when they do occur, they can often be contained domestically. Now the activities of governments and international organizations reflect a recognition of this fact, but the shift in focus from trans-border to intra-state remedial medical treatment has been due significantly to the activities of civil society groups. CSOs often work at the local level with diseased individuals; and they have in-depth understandings of effective remedial strategies.

These two broad trends of issue linkages and the growth of GHPs have resulted in increased attention and funding for global health assistance programs. In fact, as Laurie Garrett has noted: “Today, thanks to a recent extraordinary and unprecedented rise in public and private giving, more money is being directed toward pressing health challenges than ever before.” (Garrett, 2007, 14) For example, the Bill and Melinda Gates Foundation has given away remarkably large sums of money totaling nearly \$8 billion to health projects since its inception in 2000. (Gates Foundation Website) In less than forty years since its creation, *Medicins Sans Frontieres* has become a globally recognized and respected organization capable of mobilizing thousands of medical professionals and millions of dollars. The Red Cross is also a household word, and its volunteers are almost always called upon to assist in emergency situations nowadays.

Hundreds, if not thousands, of NGOs of varying wealth and size are currently active in international health; however, most recognize that they do not have the necessary resources, connections, or skill-sets to accomplish their goals single-handedly. This leads us to another important trend in health assistance since the early 1990s; and that is the development and growth of public-private partnerships or global-health partnerships (GHPs). GHPs are comprised of a mix of actors including governments, intergovernmental organizations, medical nongovernmental organizations, private

businesses, and philanthropic groups. These multi-partner groupings have become an extremely important facet of current assistance efforts largely because they are allowing each actor to exploit its comparative advantage. Intergovernmental groups like the World Health Organization are able to coordinate large groups of experts, but lack the manpower to actually treat patients. Medical NGOs like MSF have on-the-ground medical expertise but often lack the financial resources necessary to buy equipment and drugs. Philanthropic foundations have access to large sums of money but lack political connections and clout. For-profit pharmaceutical firms have knowledge and supplies of drugs, but no on-the-ground capacity to share them. The World Bank is able to provide funding and effective evaluations of the economic ramifications of assistance programs, but, they lack medical expertise with regard to specific illnesses. Thus, individually these CSOs and other institutions cannot combat infectious diseases at a global level, but as a group they have the potential to be immensely effective.

While it would be incorrect to state that all GHPs are effective in reducing the number of sick and dying individuals around the world, the following three examples highlight the significant contributions of successful global health partnerships. One of the more notable initiatives directed at a tropical disease is the **Onchocerciasis Control Program (OCP)**, which was created in 1974 and continued operations for almost 30 years. Onchocerciasis, commonly referred to as “River Blindness”, is predominantly an African problem, with 90 percent of the cases presently occurring there; the remaining 10 percent occur in Latin America and Yemen. The disease is caused by a parasitic worm that is transmitted by a black fly that inhabits areas around fast flowing water. The major catalyst for the 1974 initiative was the development of an effective aerial spraying process that kills the black fly vector. This technique was aimed at reducing case numbers by preventing new infections. In the mid-1980s, however, the initiative expanded its scope to provide treatment to those already infected. This was possible because the pharmaceutical company Merck & Co, which had developed the effective drug Mectizan (ivermectin) several years previously, decided to donate the drug to all in need for as long as necessary. (Merck & Co. “Controlling the Source”; Beigbeder, 2004, 87-94)

The membership the Onchocerciasis Control Program in its early years included a large number of organizations—the World Bank, WHO, UNDP, UNFAO, research organizations, donor states, 30 NGOs, and the corporate sector. The various participating organizations had particular roles. The World Bank was the fiscal agent for the OCP, and it was responsible for the mobilisation and administration of funds. WHO was the Executing Agency, concerned with overseeing the overall implementation of the program. UNICEF, UNDP, World Bank, and the WHO Special Programme for Research and Training in Tropical Diseases (TDR) were responsible for promoting scientific research and the distribution of research findings. The UNDP and governments of industrialized countries provided funding, while NGOs were involved with administering treatment and training locals.

When the program closed in 2002, it had worked in 11 African countries, with a total population of 30 million people. It cost approximately \$550 million and lasted 28 years. Operations ended in 2002, at which time OCP handed over the remaining tasks of disease monitoring and drug distribution to the governments of the 11 states within the scope of the program. It is estimated that the program cured 1.5 million people, prevented 300,000 people from going blind, and paved the way for 25 million hectares of arable land to be re-claimed for habitation and agricultural usage. Thus the Onchocerciasis Control Program became “a pioneer and successful model of public-private partnership for health.” (Beigbeder, 2004, 87)

Guinea Worm Disease, or dracunculiasis, is an ancient affliction of mankind, which is caused by a parasite found in water fleas that inhabit bodies of stagnant water. When water from these sources is drunk, parasitical larvae are ingested. The larvae hatch and grow into a worm within the host’s body, and about one year later the fully grown, meter long worm emerges from the host, usually through the foot. Due to the nature of the parasite and the disease—it is easily and inexpensively preventable and has no animal reservoir—dracunculiasis has been deemed a feasible candidate for eradication for decades. For this reason, the **Guinea Worm Eradication Program** was established by

the US Centers for Disease Control and Prevention (CDC) in 1980. Since 1986, however, it has been led by the Carter Center.

The eradication program currently involves over 100 partners including governments, foundations, corporations, individuals, UN organizations, Ministries of Health of afflicted nations, and NGOs. The four major partners spearheading the eradication effort are the Carter Center, CDC, UNICEF, and WHO. The Carter Center coordinates the activities of the program partners, advocates on behalf of the afflicted, fundraises, and provides technical assistance and medical supplies. The CDC has a Guinea Worm Task Force, and it is mainly involved in monitoring and scientific analysis of Guinea worms. UNICEF is most directly involved with the prevention aspect of the program through the provision of water filters, the digging of wells and the use of larvicide. WHO, through its Collaborating Center for Research, Training and Eradication of Dracunculiasis and its country offices in endemic areas, assists with detection of cases, dissemination of information, and training of local persons and health officials in how to prevent contraction of the disease. Teaching and remedial care for indigenous peoples is usually undertaken by on-the-ground NGOs, such as the Red Cross, MSF and CARE.

Funds for the eradication program come largely from governments of developed countries and foundations. Of particular note, in 2000 the Bill and Melinda Gates Foundation donated \$28.5 million to the eradication program. According to the terms of the grant, the Carter Center is the lead agency for countries with case loads over 100 per year, while WHO is the lead agency for those with less than 100 cases per year. Also, WHO is responsible for the technical aspects of pre-certification and certification. UNICEF remains involved in the provision of clean, sanitary drinking water. (Hopkins, et al, 2002, 421) The 25 private companies involved in the program provide support in the form of medical supplies such as drugs, and prevention tools such as nylon filter cloths for filtering fleas out of the infected water, and larvicides for killing the dracunculiasis larvae.

The eradication program has been remarkably successful. In fact, it has reduced disease incidence by 99% since its inception. In the mid-1980s, over 3.5 million cases of Guinea Worm disease occurred every year; by the early 21st century, that number had dropped to about 50,000 cases annually. In 2005, there were fewer than 11,000 cases, and the disease has now been geographically limited to just nine African countries, with most cases occurring in Sudan, Ghana and Nigeria. (Greenaway, 2004, 495; WER, 2004, 342-343) Eradication in Sudan poses the biggest hurdle in the global eradication effort because of the civil war that makes it virtually impossible to allow medical workers and scientists to access and treat infected persons. Nevertheless, experts believe that Guinea Worm Disease can be eradicated from Sudan within five years of effective access being granted to the Eradication Program. (Greenaway, 2004, 499-500)

Poliomyelitis, more commonly referred to as polio, is a viral disease that is contracted through the consumption of contaminated human waste. In severe cases, it can cripple, paralyze or even kill its victims—who are almost always children—within days. Polio has been easily and inexpensively preventable since a vaccine was developed in the 1950s. In part due to this very effective and easy-to-administer vaccine, the World Health Assembly passed a motion, in 1988, to completely eradicate the disease. This WHA decision created the **Global Polio Eradication Initiative** (GPEI), which has brought about significant reductions in the morbidity and mortality of polio. In fact, when GPEI was launched, polio was endemic in 125 countries and approximately 1,000 children were paralysed or killed by the disease each day. As of 2003, however, polio had been confined to just six countries, and case rates had fallen to less than 1,000 per year globally. The Eradication Initiative has mobilized the support of over 20 million volunteers and has immunized over 2 billion children.

GPEI was spearheaded by WHO, UNICEF, CDC and Rotary International; however, membership has expanded to include other organizations such as the Bill and Melinda Gates Foundation, the World Bank, Red Cross/Red Crescent Societies, and private companies. The spearheading partners of the polio eradication program have highly differentiated roles within this initiative. WHO, through its headquarters, regional

and country offices, provides the overall technical direction and strategic planning for the management and coordination of GPEI. It also coordinates operational and basic science research, provides operational support to ministries of health of endemic countries, and conducts training programs. UNICEF is the lead partner in the procurement and distribution of polio vaccines for immunizations. It provides technical assistance to national coordinators to develop action plans and secure logistics to access hard-to-reach places, and is an active partner in resource mobilization, advocacy, and public information. CDC's most important contribution to the eradication effort is the deployment of its epidemiologists, public health experts, and scientists to WHO and UNICEF. In the case of an outbreak, CDC works as the "viral detective" of the partnership, using its laboratories and scientific expertise to identify the strain of poliovirus. CDC also provides funding to purchase vaccine doses for mass immunization campaigns and to support the global polio laboratory network, including funding short-term and long-term technical support.

Rotary International is the most prominent and active CSO in the initiative and it plays several key roles within GPEI. Over the past two and a half decades, more than one million Rotary members have volunteered their time and personal resources to the eradication effort. Rotary has been an important direct source of funding for the program. Furthermore, through its advocacy programs in developed countries, this organization has helped to convince governments to contribute to the effort. Lastly, when the Initiative holds immunization drives, Rotary International members are active in the field, actually administering the vaccine to babies and children.

To date, the eradication effort has cost over \$3 billion. This money has been contributed by governments, intergovernmental organizations, foundations and private companies. As of 2005, governments had contributed approximately \$1.8 billion; Rotary International had contributed over \$500 million; about \$200 million had come from the World Bank and the Inter-American Development Bank; the Gates Foundation had donated about \$100 million; and UN bodies, including UNICEF and WHO, had provided about \$80 million. The rest had come from private corporations and other sources. The

Initiative estimates that a further \$540 million will be necessary to run immunization programs throughout 2007-2009.

As the above section demonstrates, assistance is a long established strategy to control and alleviate health problems. States, private foundations and international organizations have been active in the health sphere since the early 1900s. Since the 1990s, however, CSOs have become more involved than ever before in history in developing programs and initiatives to assist the sick and dieing. CSOs have contributed in very important ways to multi-actor global health partnerships that have brought about measurable and significant reductions in rates of diseases like onchocerciasis, Dracunculiasis and polio that have been afflicting humans for millennia. Health in poor countries is in no way on par with health in rich countries, but GHPs have had a significant impact on reducing the burden of numerous diseases over the past quarter century, and they show no sign of slowing their progress.

Conclusion

Since the 1990s, international collaboration has expanded with regard to all three strategies of disease control—conducting surveillance, making rules, and providing assistance. And in each strategic sphere, the contributions of CSOs have had a significant impact on the evolution of governance. In this section, the transformation of global health governance and the contributions of CSOs are reviewed and the forces that have influenced this transformation are addressed.

Surveillance of disease outbreaks does not attract considerable attention among people concerned with international health issues, but it is a central component in effectively controlling the spread of diseases. A crucial change that has led to a transformation in global health surveillance concerns the dramatic advances in communications technology that have been occurring since the early 1990s. In fact, the revolution has made it difficult, and in some cases impossible, for states to contain information on disease outbreaks within their borders. This has led to an acceptance by states, international organizations, and CSOs of the right to share information on

outbreaks throughout the world. Transparency has become the hallmark of surveillance within the global health regime.

There have been a variety of international institutional changes with regard to surveillance in the last fifteen years, and at the centre of them is cooperation among governmental and nongovernmental actors to promote the flow of information on disease outbreaks. The establishment of nongovernmental networks of experts such as Pro-MED marked the end of the dominance of state-controlled disease surveillance. The other three important surveillance institutions, GPHIN, GOARN and the International Health Regulations, are all public-private hybrid institutions and pillars of global health surveillance.

Throughout the latter 19th and the early 20th century, international health collaboration was associated with rule-making to prevent the trans-border spread of disease. Particular attention was given to quarantine regulations and ship and port sanitary standards. In reality, many of these rules were ineffective in preventing the spread of diseases and were flouted by states, ship captains and port officials. On the whole, this regulatory pattern has not changed markedly since 1903. One need only look at most of the rules in the 2005 IHR to recognize that the content of the rules is similar to what it was in the past. It is possible that compliance with IHR trans-border rules will be better respected in the future than they were in the past, but the difference is not likely to be striking.

What has changed within rule-making (broadly conceived) is the recommendation of outbreak responses. The World Health Assembly has always approved guidelines for dealing with existing or possible disease outbreaks, but they were rather general. The 2005 IHR created a Review Committee and an Emergency Committee, and it is likely that their decisions may have greater weight than did previous WHA recommendations, but they will not be regarded as legally binding regardless of the formal status of the IHR.

Since the mid-20th century, WHO, WHO Collaborating Centers, WHA committees, and other intergovernmental bodies (such as the World Bank) have often issued non-binding medical recommendations concerning specific diseases, and these recommendations have frequently been voluntarily adopted by governments and health officials. In the past two decades, GHPs have also begun to issue recommendations concerning the management of health threats. While GHPs were created primarily to mobilize and disperse aid monies, they have since expanded their mandate to include the proposal of medical and scientific treatment options.

In the early years of international health cooperation, states were concerned first and foremost with controlling the spread of diseases at ports and land boundaries. In the 20th century, private health experts became increasingly disenchanted with attempts to control trans-border movements of humans and goods. Many experts affiliated with nongovernmental bodies such as the Rockefeller Foundation and the Pasteur Institute turned their attention to controlling the incidence of diseases within countries as a way of reducing the spread of diseases among countries. However, governments of developed states remained unconvinced of the benefits of improving the health infrastructure of developing countries, and so provided very little in the way of financial and material health assistance throughout most of the 20th century.

Since the late 1980s, there has been a revolution in international collaboration to provide health assistance due to increased understanding of the links between health and other values and the proliferation of international institutions concerned with improving global health and economic well-being. It is now widely recognized that health conditions influence a variety of crucial values beyond health – namely economic development, environmental conditions, security issues, and even human rights. Other factors that encourage cooperation are: the increasing awareness of emerging and re-emerging diseases; the need for large sums of money; the need for diverse skill-sets to tackle large health projects; and the need for political legitimacy that CSOs offer. Funding for health has increased dramatically as states, international organizations (like

the World Bank) and rich CSOs (like the Bill and Melinda Gates Foundation) have provided increasing financial resources.

This paper has explored the growth of governance in three strategic spheres of global health governance. In doing so it has raised implicitly and explicitly a number of issues that deserve analysis and discussion. These include:

- What are the strengths and weaknesses of different types of CSOs in managing various health issues? Should they be revised or reformed to enhance their effectiveness?
- Which CSOs are particularly valuable to integrate in multi-actor GHPs? (This implies a need to identify the advantages and disadvantages associated with working alongside varied CSOs.)
- What types of international institutions are likely to make the greatest contributions to controlling outbreak crises and reducing the long-term weaknesses of health systems?
- To whom should CSOs be accountable, and how should their accountability be organized?
- Is global health governance better now that CSOs are deeply involved on their own and in partnerships?
- Governance activities have increased in the 21st century, but is governance it better than it was in the 20th century? In particular, have significant improvements been realized in the non-industrialized world?

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