2014 International Global Health Case Competition



"Envisioning the 21st Century WHO"

Characters and plots described within the case are considered fictional, though the case topic and descriptions of circumstances are accurate representations of what is available in the literature.

The case scenario is complex and does not necessarily have a correct or perfect solution, and thus encourages a judicious balance of creative yet perceptive approaches.

The authors have provided informative facts and figures within the case and exhibits to help the teams. The data provided are derived from independent sources, may have been adapted for use in this case, and are clearly cited such that teams can verify or contest the findings within their recommendations, if it is pertinent to do so. Teams are responsible for justifying the accuracy and validity of all data and calculations that are used in their presentations, as well as defending their assertions in front of a panel of knowledgeable judges representing different stakeholders.

The Emory Global Health Institute Case Writing Team

Introduction

The first few years of the 21st century have been challenging for the World Health Organization (WHO). This large multi-lateral organization has—in the words of expert commentators—"...moved from being the unquestioned leader of international health to searching for its place in the contested world of global health."[1] While the world has become more connected in these last two decades, many feel the WHO has instead become disconnected with on-the-ground realities and has been slow and stubbornly sovereign in its approach. As such, the WHO has increasingly endured criticisms regarding its role, operations, and engagement. Accepting these criticisms, the organization has adopted a set of major organizational reforms.[2] [Appendix A]

Reflecting on the proposed reforms and how to implement them at their December 2013 meeting, the 24* members of the WHO's Executive Board (EB)—the group tasked with translating major WHO decisions and policies into action—had that unnerving feeling that their meeting had stalled. They had no direction. The group had started the meeting with hopes of leaving with a blueprint of structural and functional changes for the WHO. And yet, within the first 30 minutes of the meeting, they realized that these reforms did not answer a more fundamental question: what should be the role and core purpose of the WHO in the changing 21st century global health landscape? Without setting a strategic vision for the organization and aligning organizational structure and resources to that vision, the reforms would be meaningless. In looking at the mess of reform documents scattered before them [**Appendix A**], the EB became increasingly frustrated that no such strategy had been clearly articulated.[2]

Recognizing the mounting tension in the room, the chairperson, Dr. Jacqueline Mirembe, called the meeting to a close and resolved that the April 2014 EB meeting in Geneva would be dedicated to defining the WHO's role in global health. Given the recent controversy regarding Dr. Jim Kim and his efforts to reform the World Bank, however, she resolved to make the WHO's reform efforts both transparent and democratic.[3] To that end, she tasked all 24 EB members and their respective staff with reflecting on the organization's history, strengths, weaknesses, as well as recent criticisms, and then building their own proposals for what the WHO's strategy should be going forward. To review these proposals on March 29th, she then assembled a task force of global health leaders representing organizations like the Carter Center and US Centers for Disease Control and Prevention (CDC) along with executives from corporations in the fields of energy, health, and wellness. The task force would provide an independent evaluation of the 24 proposals and narrow them down to four finalists. The final four proposals would then be proposed to and voted on at the World Health Assembly (WHA)† with one selected as a blueprint for the WHO's way forward. Mirembe knew that EB member teams had different strengths and that this process of collectively hearing each EB member's vision for the organization was important to empower them, and also to generate a wide array of creative and viable options.

^{*} The Executive Board of the WHO is routinely composed of 34 members representing different nation states; for the purposes of this case, we will assume that there are only 24 members and they are not politically affiliated (in other words, they do not represent any specific country, nor any specific political stance).

[†] Usually, only single proposals are brought before the World Health Assembly; for the purposes of this case, four proposals will be evaluated at that final voting level. In addition, votes cast by other EB members (participants) at this session will be represented by the "Participants' Choice Award."

The World Health Organization, at a Glance

Part of the United Nations (UN) system, the WHO is a multi-lateral intergovernmental agency tasked with coordinating and directing global health. Working at multiple levels—with country-wide, regional, and global scope—the organization engages through the following approaches: technical cooperation, advising policy, supporting and developing norms and standards, supporting knowledge generation and sharing, and convening and coordinating within their jurisdiction. [4] **Appendix B** attempts to illustrate the WHO's organizational structure, but even this diagrammatic illustration (adapted from available resources) does not give the novice reader a good sense of this organization and its complicated inner workings.

The organization describes its core functions as follows:

- 1. Providing leadership on health matters and engaging in partnerships where joint action is needed;
- 2. Shaping the research agenda and stimulating the generation, translation, and dissemination of knowledge;
- 3. Setting norms and standards, and promoting and monitoring their implementation;
- 4. Articulating ethical and evidence-based policy options;
- 5. Providing technical support, catalyzing change, and building sustainable institutional capacity; and
- 6. Monitoring the health situation and assessing health trends.[5]

Governance and Organizational Structure

The WHO consists of three components: the WHA, the EB, and the Secretariat. The WHA is constituted of 193 member states and meets annually to vote on the WHO's policies and priorities. The EB consists of 24 representatives* and its main function is to bring forth new proposals to the WHA and then to translate the WHA's decisions into action. The Secretariat is composed of the Director General (DG) and WHO staff. The DG is the chief technical and administrative officer of the Organization. [6, 7]

The organization employs 8,000 people working in 147 country offices, six regional offices (i.e., Africa, the Americas, Southeast Asia, Europe, Eastern Mediterranean, and the Pacific), and headquarters (Secretariat) in Geneva. Each region has its own committee that sets regional policy, oversees program implementation, and supervises regional activities, while the WHO's headquarters in Geneva responds to requests regarding policy development from countries.[8] The autonomy of each regional committee can sometimes conflict with achieving unified goals. In general, this has contributed to a lack of coordination and functional relationships between headquarters and the regional offices as well as between regional and country offices.

Current Funding

Funding for the WHO's activities comes from two sources: assessed contributions (mandatory and paid by member states) and voluntary contributions (paid by member states, private donors, and non-governmental organizations [NGOs], among others). Assessed contributions account for approximately 25% of the total budget; they are highly predictable, stable (i.e., little or no year to year variation) and can be used flexibly within the organization (i.e., can be used to fund multiple program areas).[9] On the other hand, voluntary contributions make up 75% of the total budget, and can be broadly divided into: 1) core contributions to the overall budget (i.e., highly flexible) and those earmarked for strategic objectives (i.e., medium flexibility); and 2) specified contributions which are earmarked to particular programs (i.e.,

non-flexible). *Figure 1*, **Appendix C**, illustrates the WHO's operating budget from 1998 to 2015, and shows important increases in voluntary funding. In 2012, 91.5% of voluntary contributions were specified (non-flexible). The composition of these specified contributions is shown in *Figure 2*, **Appendix C**. The Bill and Melinda Gates Foundation (B&MGF) was the largest donor of voluntary specified funds in 2012 (\$266.4 million‡; 19% of total), followed by the United States (US) government (\$214.9 million; 15% of total).[10]

The 2014-2015 budget approved by the WHA is \$3.98 billion [*Table 1*, **Appendix C**]. Relative to the 2012-2013 budget, funding for non-communicable diseases was increased (+\$54 million), with cutbacks to infectious disease programs (-\$72 million) and outbreak and crisis response (-\$241 million). The latter was justified by increasing funds for surveillance and through the implementation of International Health Regulations§[11] from member states, however, only 40 of 194 countries had completed core surveillance and response requirements to detect and respond to outbreaks in 2014.[12]

Importantly, as of November 2013, only 61% of funds for the approved budget had been secured, leaving doubts about whether the 2014-2015 priorities set by the WHO will be fully supported.[13] How the WHO is funded has been a major focus of recent discussions, with flexible funding and accountability as key themes.

The History of the WHO

The WHO was formed in 1948, when the first WHA was held in Geneva. Its birth was a result of the union of three large European institutions, the Office International d'Hygiène Publique (est. 1907), the League of Nations Health Organization (est. 1920) and the newly established UN Relief and Rehabilitation Administration. The Pan American Sanitary Bureau and other regional public health organizations, although involved with the WHO, remained autonomous; this would result in strong regional fragmentation as the WHO developed. Early on, the WHO assumed the roles and responsibilities of its predecessors, but sought to be the champion of a new brand of international health with a uniquely *global*—as opposed to *intergovernmental*—perspective, meeting this goal with varying degrees of success in the years to come.[1, 4]

The early years were challenging. Cold War politics had an important influence on WHO policies and health priorities, leaving the organization victim to the politics it had set out to rise above. The Soviet Union and allies left the UN system in 1949, resulting in unopposed power for the US and Europe. These two allies set health priorities conveniently aligned with their political and economic interests. The malaria eradication campaign that began in 1955 is one such example: as newly independent African nations were established, malaria eradication was seen as a priority to promote economic development in these regions and to facilitate trade with Europe and the US, without running the risk of carrying the fatal disease across oceans and borders. In addition, this priority aligned with Western *modus operandi* of that time, providing the US and allies with new frontiers to win the hearts and minds of yet unclaimed populations in the war on Communism.[1]

[‡] All financial figures reported are US dollars, unless otherwise specified.

[§] IHR aims at developing and maintaining an international surveillance system capable to respond to public health risks and provide guidance to member states to build national public health systems that are able to routinely collect surveillance data, rapidly assess imminent public health risks, share data, and implement public health control measures.

While the malaria eradication campaign was ultimately declared a failure in 1969, the parallel smallpox eradication campaign was immensely successful. This campaign had broader political commitment. The Soviet Union and allies had returned to the WHO by 1956 and, looking to make their mark in global health, spearheaded the initial smallpox eradication initiatives. Support from the US meant a unified global front against smallpox, and importantly, a well-funded program. Smallpox eradication demonstrated that clear priority setting and unified international commitment was possible and marked a high point in the WHO's historical global health impacts.[1]

The 1970s brought yet another shift in world politics with increasing popularity of socialism and nationalism. Vogue thinking shifted away from short-term campaigns toward long-term infrastructure building and social reforms as a means for achieving meaningful health change, culminating in the WHO adopting the Declaration of Alma-Ata in 1978. This declaration called for high-quality primary health care (PHC) and "Health for all" by the year 2000.[14] However, this shift was met with substantial opposition by nation-states and international agencies who argued that these goals, particularly strengthening PHC, were unrealistic and unattainable. Instead, spearheaded by the US, UNICEF, Rockefeller Foundation, and World Bank, a selective PHC initiative based on measurable indicators was proposed. This disagreement led to a philosophical divide within the WHO and dealt an important blow to a multilateral priority setting approach; the WHO was reverting to a previous era where initiatives were aligned with the individual priorities of major funders. [1]

The internal rift continued. In 1982, the WHA voted to freeze the WHO's funding from assessed contributions; this stagnation of assessed contributions continues to this day. In addition, the WHO had to compete with the growing influence of strong financial institutions such as the World Bank. The philosophy of the Bank in particular—which supported government-level economic reform for achieving change—though controversial, posed a direct threat to the WHO's boots-on-the-ground approach. As these other institutions began funding health programs, the work and relevance of the WHO was put in jeopardy. This led to multiple reforms seeking to revive the organization's reputation. [15]

In 1988, Hiroshi Nakajima from Japan was elected as DG and instituted reforms to align the WHO with the ever-changing global political landscape. The fall of the Soviet Union resulted in an increase in the number of newer and weaker governments seeking assistance from the WHO.[16] Despite implementing a successful TB program, launching anti-tobacco campaigns, and developing infrastructure for public/private partnerships, Nakajima was highly criticized for a lack of leadership, corruption, and cronyism. He ultimately fell short of restoring the WHO's respected status by the end of his term in 1998.[16]

The WHO faced harsh criticism during Nakajima's tenure. Prominent journals published negative appraisals regarding: varying quality and impacts of the WHO's country-level work; little regional strategy; lack of global coherence and coordination across regions; bureaucracy; and priorities that appeared to be driven by donors rather than global health concerns, leading to competition for resources within the organization.[17-21] Donors also felt that working solely with governments, the WHO had lost its ability to represent all voices. As a result, donors began favoring providing earmarked funding to the WHO to ensure that their priorities were met. [16]

Also during Nakajima's tenure as DG, the landscape of global health changed considerably. Official

Development Assistance (ODA)(e.g., from the World Bank) increased from \$5.82 billion to \$8.54 billion and the number of private institutions involved in global health also increased exponentially. The HIV/AIDS epidemic was rampant and the WHO's efforts to address the epidemic were nullified when Jonathan Mann, head of the WHO HIV/AIDS program, left in 1996 due to differences with WHO leadership. Mann went on to form UNAIDS, leaving the international community with doubts about WHO's ability to respond to modern diseases.[1]

With the election of Gro Harlem Brundtland of Norway in 1998, the WHO finally began to restore its international reputation. Brundtland hired world-renowned experts to head WHO programs. In so doing, she also carved out a new role for the WHO as a global strategic planner and authoritative leader in global health. The Global Framework on Tobacco Control—the first legally binding treaty that assisted individual countries with transnational problems—was one of the great successes of her administration. Another success was the Roll Back Malaria program in which the WHO made considerable progress in working side-by-side with other organizations. Although Brundtland succeeded in increasing the WHO's visibility globally, internal issues remained unresolved, such as the fragmentation of regional offices. Furthermore, donors' confidence in the WHO's capacities was limited and so flexible funds remained scarce. [1, 16]

During Brundtland's tenure, the influence of other international agencies continued to grow. ODA and non-governmental funding grew to \$28.8 billion. The B&MGF became the biggest funder of infection control and vaccine development. The Global Fund and its grant program to fund grassroots NGOs developed considerable local expertise. The President's Emergency Plan for AIDS Relief (PEPFAR) became the largest HIV/AIDS funder; other institutions such as the Carter Center found niches in addressing Neglected Tropical Diseases; and many others now work globally in health issues such as maternal health and nutrition. Even functions once thought to be exclusively among the WHO's responsibilities, such as monitoring health trends, are being ably conducted by the B&MGF-funded Institute of Health Metrics and Evaluation, headed by Christopher Murray, a former WHO employee. This considerable overlap between roles played by the WHO and other organizations may have undermined the WHO's role and priority setting mandate. [16, 22] Moreover, the addition of more donors and implementers in global health has at times created competition among donors, territorial spats, and increased reporting requirements for recipients of funding for health programs.

Successes, Criticisms, and Reform

It is important to acknowledge the WHO's significant successes and impacts (e.g., Smallpox eradication) in global health. In more recent years, the WHO has been recognized for providing unique leadership on vaccine-related issues (e.g., the Expanded Program on Immunization, established in 1974, spearheaded a global, unified fight against vaccine-preventable diseases).[23, 24] Other shining moments, like the organization's handling of the SARS outbreak in 2002-2003 as well its management of the avian flu and pandemic H1N1 demonstrate that the organization can, and does, do good.

Still, the criticisms of the Nakajima and Brundtland eras continue to be relevant today; experts have characterized the WHO as: "bureaucracy for bureaucracy's sake; mired in useless statement-making and conference-giving; an unwieldy, top-heavy, bureaucratic monstrosity that does many things poorly and few things well." [25] The current DG, Margaret Chan, acknowledged in her 2011 report that the

organization has done a poor job of strategically setting priorities, is duplicating work done by other agencies, and is too rigid to rapidly adapt to new challenges. As the first decade of the new millennium came to a close, she wrote, "...WHO finds itself overcommitted, overextended, and in need of specific reforms." [25] Specifically, the organization has struggled to reconcile its human resources issues, with a workforce that some have criticized for lacking depth. Furthermore, there are strong concerns about the WHO's ability to compete with new global health players, who are flexible and well-funded. The WHO's bureaucratic nature has led to an escape of talent, with many ex-WHO experts now working with the B&MGF and other global health institutions. [26]

In addition to its organizational woes, financing the WHO's activities remains a challenge. Currently, 75-80% of funds come as earmarked contributions, leaving many of the WHO's programs underfunded. Noncommunicable diseases (NCDs) are a clear example. NCDs currently represent 43% of the global burden of disease and are expected to account for 60% of disease and 73% of death by 2020,[27] yet only 3% of ODA was dedicated to NCDs in 2007.[28] Donors are not necessarily to blame; the WHO is seen as an institution that provides low returns on donor investments. Also, lack of adequate indicators and measurable outcomes regarding some of the underfunded programs may contribute to their lack of funding, though this may be said for most organizations in the field of global health.

Problems in financing also lead to concerns that the democratic nature of the WHO's priority setting may be at risk. With the majority of funding being earmarked for specific programs by donors, the priority setting power of the WHA is limited as they control only 20-25% of the total budget. Furthermore, with private donors accounting for the majority of the WHO's voluntary contributions, there are concerns regarding conflicts of interest influencing WHO policies. For example, some fear that large corporate donors might be benefiting from looser regulations that don't penalize the corporations for adverse effects of their products. [15]

Current reforms focus primarily on increasing the flexibility of financing through addressing three main areas. The first is *priority setting*; though this is difficult in an organization with a mandate as large as the WHO, six priorities related to maintaining a presence in global health have been identified by the leadership for the 2014-2019 period [**Appendix A**]. Second, achieving *global governance* will require better communication across regional offices, the EB, and WHA, as well as streamlining the number and types of resolutions brought to the WHA. Global governance efforts are also aimed at better engaging state and non-state actors, stakeholders, and the public to safeguard the WHO's functions post-reform. Third, the WHO is enacting *management* reforms such as providing incentives to retain staff and ensuring accountability for outcomes.[29] As of November 2013, financing reforms were being piloted, with the Secretariat focusing on broadening the donor base. The results of this change are expected to be discussed at the May 2014 WHA.[13]

Despite a favorable independent evaluation of the reform in its initial stages, criticisms remain. Critics argue that reforms do not address limited resources in global health, do not leverage the WHO's key strengths, and do not address weaknesses of the regional structure, nor the varying quality of country offices. More broadly, the reforms and WHO leadership have been attacked for failing to articulate a meaningful vision, getting lost instead in the intricacies of structural and organization reforms.[16] In a world of global pandemics and borderless health threats, a focused WHO that is uniquely poised to offer solutions is more important than ever. And while there are many possibilities for reform, they should be

driven by a clearly articulated vision.

Case Studies

Globalization has brought significant changes to global health. Today, there are more actors able to access a wide global audience than ever before and some transnational corporations (market capitalization of \$600 billion) dwarf most national economies (GDP<US\$100 billion).[30] Normative power exerted by groups with less economic power has further muddied the waters, with non-governmental organizations (NGOs), faith-based organizations (FBOs), and scientific and expert bodies generating public interest and mobilizing energy for change at various levels. And while nation-states were the original building blocks for the WHO, many have formed their own national public health institutes (NPHIs) in recent decades which are charged with strategizing and coordinating health efforts both internally and with other NPHI partners. A number of other organizations including UN agencies that deal with health or health issues, like UNICEF (which has played a major role with children and immunizations), the FAO, UNHCR, and UNEP, as well as independent groups like Médecins Sans Frontières have, over the years, contributed to global health initiatives in small and large ways alike. Communication between these agencies has generally been poor, often leading to mixed messages and sometimes a leadership vacuum. Here, *some* of these organizations are described as case studies in terms of how they relate to the broader global health agenda.

Faith-based Organizations

FBOs are unique in that they remain rooted in local communities while extending a global reach.[31] The growth in FBOs is being spurred on by increased funding from national governments; in some developing health systems, these organizations provide as much as 70% of an area's healthcare services.[32] FBOs have demonstrated success in pairing religious beliefs with public health practice and offering more rapid, sustainable, and effective capacity building and action. Their functions frequently overlap with the WHO in the areas of combating HIV/AIDS in Sub-Saharan Africa and cardiovascular disease in Ghana.[Appendix D][33-35]

Non-governmental Organizations

The breadth and diversity of approaches within the NGO realm reinforces the overlaps with roles that were previously under the WHO's purview.

Founded in 1982 as a partnership between Emory University and former US President Jimmy Carter, the Carter Center is a not-for-profit NGO headquartered in Atlanta, Georgia. Rather than the broad approach the WHO has taken, the Carter Center set out from its inception to fight six preventable diseases—guinea worm, river blindness, trachoma, schistosomiasis, lymphatic filariasis, and malaria—by using health education and simple, low-cost methods. The Center also strives to improve access to mental health care, train public health workers, and strengthen agricultural production. So-called "peace programs" of the organization include observing elections, strengthening democracy beyond elections, advancing human rights, and mediating conflict.[36]

Working on a larger scale, CARE (Cooperative for Assistance and Relief Everywhere) is a large international humanitarian agency that addresses: emergency response, food security, water and sanitation, economic development, climate change, agriculture, education, and health. Founded in 1945,

CARE is one of the largest and oldest humanitarian aid organizations. In 2011, CARE reported working in 84 countries, supporting 1,015 poverty-fighting projects, and reaching more than 122 million people.[37] CARE also advocates at the local, national, and international levels for policy change, the rights of low-income populations, and on promoting gender equality. CARE has twelve National Members, each with its own NGO registered in the country, and each able to run programs, fundraising, and communications activities independently.[37]

National Public Health Institutes (NPHI)

While NGOs exemplify the success of the private sector in responding to modern global health challenges, the work of NPHIs argues for the potential of large bureaucratic bodies to successfully engage in farreaching health programs. Today, some 74 countries boast their own NPHIs, with notable examples including the US CDC, the Netherlands' National Institute for Public Health and the Environment and China's CDC.[38] The institutes function as arms of their respective national governments, providing leadership in protecting and improving local and national health, and collaborating with other NPHIs via organizations like the International Association of National Public Health Institutes (IANPHI). Depending on the country and the institute, they carry out any number of public health functions from conducting population health assessments, research and surveillance, implementing health programs, as well as broader mandates, such as enforcing international health regulations.[39, 40]

For example, the French Institute for Public Health Surveillance ("InVS") is responsible for traditional public health responsibilities like surveillance and regulation. It was created in 1998, and operates as a subsidiary of France's Ministry of Health. Its mission includes addressing infectious diseases, environmental health, workplace risks, chronic diseases, injuries, and international and tropical diseases. [41] Acknowledging that health surveillance requires partnerships, InVS has several partners within France (e.g., hospitals, laboratories, practitioners, other health agencies) and global partners (e.g., global health surveillance networks). [41]

The US CDC was created in 1946 as a "Communicable Disease Center" to prevent the spread of malaria within the US.[42] Today, the agency has an annual budget of approximately \$6.9 billion, field staff assigned to all 50 states, and a broader mission that includes all chronic and acute diseases, and general health threats.[42] The agency is also very active around the globe and has staff assigned in more than fifty countries.[43] CDC has been a technical resource for the WHO since its inception, providing direct subject matter expertise in a variety of areas and seconding CDC staff to the WHO headquarters or regional and country offices.

Further demonstrating the broad influence of NPHI's is the example of the European Centre for Disease Prevention and Control ("ECDC") established in 2005 for infectious disease surveillance, monitoring, and alerts (e.g., tuberculosis surveillance, HIV surveillance, epidemiology training, surveillance scientific journals). This "regional public health agency" now exercises influence in surveillance, technical assistance, and health security activities for the European continent. [44]

National Research Institutes

With NPHI's assuming control of regulatory and surveillance functions, many nations also have national research institutes, in some cases distinguishing themselves as prestigious homes for biomedical research.

The U.S. National Institutes of Health (NIH) is one such organization, boasting the title of the world's largest source for biomedical research funding. The agency takes direction from the U.S. Congress and has 27 institutes and centers, along with many program offices. In recent years, Congress, NIH, and the scientific community have realized NIH needs to respond nimbly and strategically in an environment of emerging threats where innovation and interdisciplinarity are needed.[45] The NIH has therefore experienced its own reorganization in the past decade and continues to undergo regular independent reviews.[46-50]

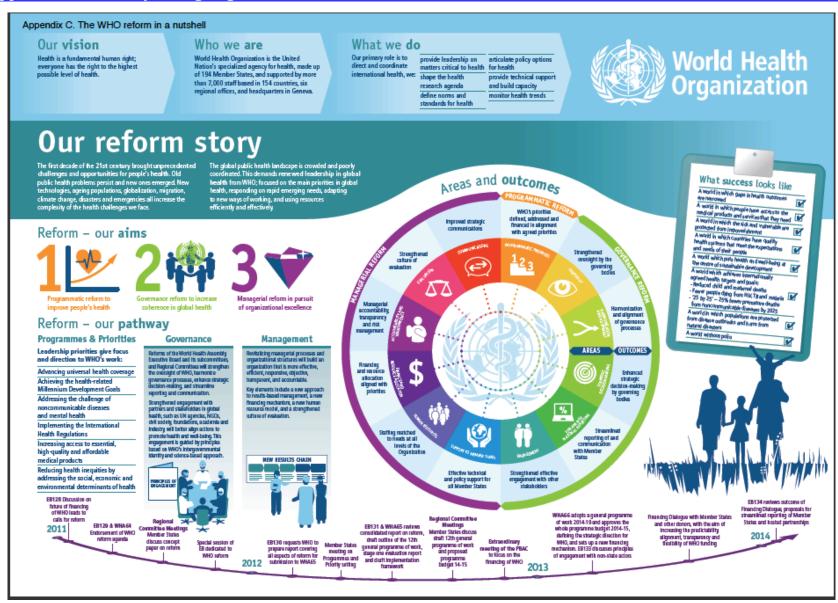
Developing countries have also followed suit, demonstrated in the examples of the Uganda Virus Research Institute (UVRI), established in 1936 by the Rockefeller Foundation, the International Center for Diarrheal Diseases, Bangladesh (ICDDR,B) and the Kenya Medical Research Institute (KEMRI). Much like their developed world counterparts, these agencies participate in surveillance, detection, and monitoring of many infectious diseases while conducting research on treatment and immunization programs, supporting outbreak investigations, and assisting in international surveillance. [38]

The March 29th EB Special Session

As March 29th drew ever closer, the fundamental question about the WHO's role in global health remained. Mirembe knew that organizational reforms that are not linked to a clearly articulated strategy are meaningless and likely to fail. She had high hopes for the EB Special Session. Each of the EB members' teams would present their vision for the WHO. Teams would need to define the organization's role; determine if and how the organization should proceed with reforms; and develop an appropriate communications strategy to re-brand the WHO they envisage (explicitly stating the organization's mission). The WHO of the 21st century may end up being no different from previous generations due to major institutional and constituent barriers, and the teams would need to recognize these. The task force would acknowledge that effective proposals at this stage would not busy themselves with the intricacies of an implementation plan or operating budgets, but would rather focus on overarching strategy and role. The best proposals would clearly articulate their vision for a new WHO, identify ways to overcome barriers to change, demonstrate how the organization could be re-designed to align with the proposed vision, articulate which key stakeholders the WHO would engage with, over what broad timeline would successful change be achieved, and how this new vision and strategic direction could be most effectively communicated to all relevant stakeholders.

It promised to be an exciting few days leading up to the Special Session.

Appendix A: Summary of Ongoing Reform Plans



Appendix B: Diagrammatic Representation of WHO's Organizational Structure

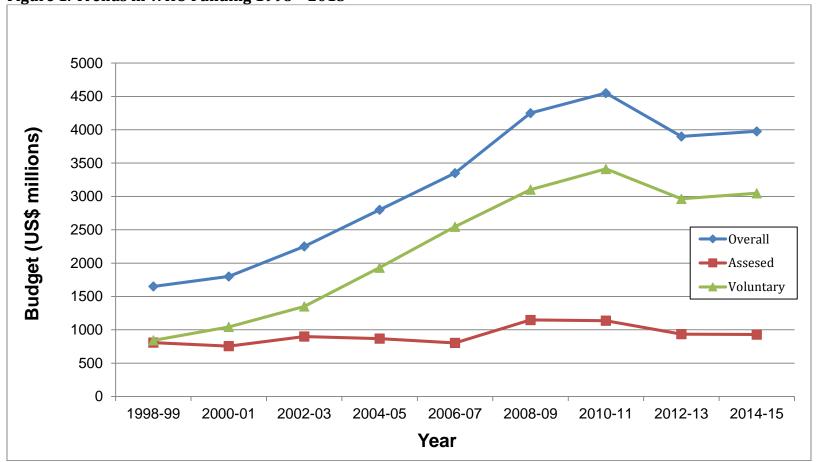


Adapted from Geneva Foundation for Medical Education and Research

Figure 1. This organogram is intended to demonstrate hierarchy within the WHO, though it fails to elucidate the complex bureaucracy behind decision-making in the organization.

Appendix C: Funding the WHO

Figure 1. Trends in WHO Funding 1998 - 2015



Source: World Health Organization, Sixty-sixth World Health Assembly: Agenda item 12.3 – Proposed Programme Budget 2014-2015; retrieved on January 11, 2014 from: $\frac{\text{http://www.who.int/about/resources planning/A66 7-en.pdf}}{\text{http://www.who.int/about/resources planning/A66 7-en.pdf}}$

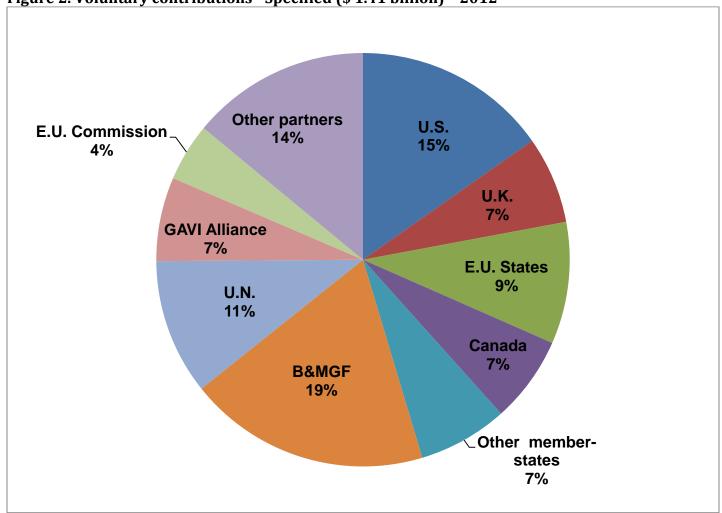


Figure 2. Voluntary contributions - Specified (\$ 1.41 billion) - 2012

Source: World Health Organization, Sixty-sixth World Health Assembly, Provisional agenda item 21.1: Annex – Voluntary contributions by fund and by contributor for the year ended 31 December 2012; retrieved on March 3^{rd} , 2014 from: http://www.who.int/about/resources_planning/A66_29add1-en.pdf

Table 1. WHO funding for 2014-2015 period

Program area	Budget (US\$ millions)							
	Total	Africa	Americas	South-East Asia	Europe	Eastern Mediterranean	Western Pacific	Headquarters
Communicable diseases ^a	840.8	266.7	19.5	107.4	30.6	89.9	71.5	255.2
Non-communicable diseases ^b	317.9	56.5	21.7	21.8	32.8	23.5	42.1	119.5
Health through the life-course ^c	388.5	92	32.2	23.5	40.1	23.1	21.6	156
Health systems ^d	531.1	71.3	30.7	44.9	44.8	43	54.2	242.2
Preparedness, Surveillance and response ^e	287	55.5	16.2	16.6	13.7	17.2	29.4	138.4
Emergencies ^f	927.9	447.5	11.1	74.8	9	291.3	6.9	87.3
Corporate services ^g	684	130.5	44.6	51	54	72	44.3	287.6
Overall budget	3977	1120	176	340	225	560	270	1286.2

- a Includes HIV; TB; Malaria; Neglected tropical diseases; Tropical disease research; and Vaccine-preventable diseases
- b Includes Non-communicable diseases; Mental health & substance abuse; Violence & injuries; Disabilities & rehabilitation; and Nutrition
- c Includes Reproductive, maternal, newborn, child & adolescent health; Research in human reproduction; Ageing & health; Gender, equity & human rights mainstreaming; Social determinants of health; and Health & the environment
- d Includes National health policies, strategies & plans; Integrated, people-centered health services; Access to medicines & health technologies & strengthening regulatory capacity; Health systems information & evidence
- e Includes Alert & response capacities; Epidemic- & pandemic-prone diseases; Emergency risk & crisis management; and Food safety
- f Includes Polio eradication; and Outbreak & crisis response
- g Includes Leadership and governance; Transparency, accountability, and risk management; Strategic planning, resource coordination and reporting; Management and administration; and Strategic communications

Source: World Health Organization, Investing in the World's Health Organization: Taking steps towards a fully-funded Programme Budget 2014-2015, extracted from: http://www.who.int/mediacentre/events/2013/financing_brochure_20131511.pdf, on January 11, 2014

Appendix D: Services provided by faith-based organizations

The Percentage of all Healthcare Services or Infrastructure in Low- and Middle-Income Countries that is provided by Faith-Based Organizations

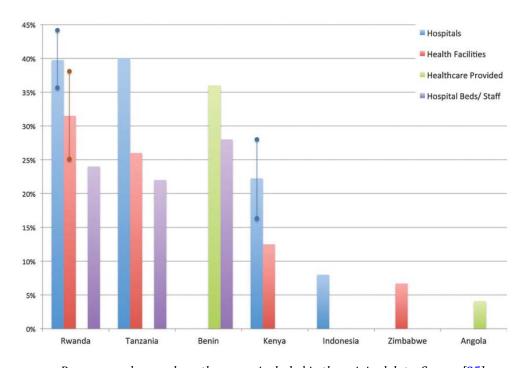
Table 1. Summary of Reported Proportion of Healthcare Provided by Faith-Based Organizations (2000–2011).

Hospitals	Health Facilities	Hospital Beds/Staff	Healthcare Provided	
8% Indonesia MoH 2011	12.5% Kenya NCAPD 2011 Luoma 2010	28% Benin Adeya 2007	4.1% Angola Connor 2010	
16.5% Kenya NCAPD 2011 Luoma 2010	25% Rwanda NIS 2008	24% Rwanda Schneider 2000	*36% Benin Adeya 2007	
28% Kenya Wamai 2004	38% Rwanda Schneider 2000	22% Tanzania MOHSW 2007		
44% Rwanda MoH 2003	26% Tanzania Todd 2009			
35.5% Rwanda Schneider 2000	6.7% Zimbabwe Osika 2010			
40% Tanzania Todd 2009				
Range 8–44 %	6.7-38%	22-28%	4.1-36%	

Percent contributed by FBOs, country, author, date published.

*Percent of hospitalizations.

These data come from sources published since 2000 that quantify faith-based contributions specifically and use a verifiable methodology including Health Systems Assessment Approach, spatial mapping, Private Health Sector Assessment, Service Availability Mapping, and other surveys and desk reviews [14–25]. doi:10.1371/journal.pone.0048457.t001



Ranges are shown where they were included in the original data. Source:[35]

References

- 1. Brown TM, Cueto M, and Fee E, *The World Health Organization and the transition from "International" to" Global" public health.* American journal of public health, 2006; **96**(1):p. 62-72
- 2. WHO. *WHO reform*. About WHO 2014 [cited 2014 March 12]; Available from: http://www.who.int/about/who_reform/en/.
- 3. Northam J. *The World Bank Gets An Overhaul And Not Everyone's Happy*. National Public Radio 2014 [cited 2014 March 17]; Available from: http://www.npr.org/blogs/parallels/2014/03/13/289819931/the-world-bank-gets-an-overhaul-and-not-everyones-happy
- 4. Clift, C. *The Role of the World Health Organization in the International System*. Centre on Global Health Security Working Group Papers 2013 [cited 2014 February 24]; Available from:

 http://www.chathamhouse.org/sites/default/files/public/Research/Global%20Health/0213 who.p df.
- 5. WHO. *Engaging for Health: Eleventh General Programme of Work, 2006-2015.* 2010 [cited 2014 February 24]; Available from: http://apps.who.int/gb/ebwha/pdf files/WHA63/A63 30-en.pdf.
- 6. WHO. *Governance*. Governance 2012 [cited 2014 March 12]; Available from: http://www.who.int/governance/en/.
- 7. WHO. *Constitution of the World Health Organization*. Basic Documents 2006 [cited 2014 March 12]; Available from: http://apps.who.int/gb/bd/pdf/bd47/en/constitution-en.pdf.
- 8. WHO. *Working for Health: An Introduction to the World Health Organization*. 2007 [cited 2014 March 12]; Available from: http://www.who.int/about/brochure_en.pdf.
- 9. WHO. Evaluation Report of Stage 1 of Reform Proposals of WHO. Report of Exernal Auditor 2012 [cited 2014 March 12]; Available from: http://www.who.int/dg/reform/evaluation-report-stage1 reform proposals.pdf.
- 10. WHO. Voluntary contributions by fund and by contributor for the year ended 31 December 2012. Sixty-Sixth World Health Assembly: Provisional agenda item 21.1 2013 [cited 2014 March 12]; Available from: http://www.who.int/about/resources_planning/A66_29add1-en.pdf.
- 11. WHO. *Alert, response, and capacity building under the International Health Regulations (IHR)*. 2014; Available from: http://www.who.int/ihr/en/.
- 12. WHO. *Investing in the World's Health Organization: Taking steps toward a fully-funded Programme Budget 2014-2015*. Financing Dialogue 2013 [cited 2014 March 12]; Available from: http://www.who.int/mediacentre/events/2013/financing brochure 20131511.pdf.
- 13. WHO. 25-26 November financing dialogue meeting. About WHO 2013 [cited 2014 March 12]; Available from: http://www.who.int/about/resources-planning/financing-dialogue/meeting-november/en/.
- 14. Mahler, H., *Primary health care comes full circle.* Bulletin of the World Health Organization, 2008. **86**(10): p. 747-748.
- 15. Lee K and Pang T, WHO: retirement or reinvention? Public health, 2014;128(2):p. 119-123
- 16. Lidén J, *The World Health Organization and Global Health Governance: post-1990.* Public health, 2014. **128**(2): p. 141-147.
- 17. Godlee, F. *The World Health Organisation: WHO in crisis.* 1994 1994 [cited 2014 February 21]; Available from: http://www.bmj.com/content/309/6966/1424.
- 18. Godlee, F., *WHO in retreat: is it losing its influence?* BMJ: British Medical Journal, 1994. **309**(6967): p. 1491.

- 19. Godlee, F., *The World Health Organisation. The regions--too much power, too little effect.* BMJ: British Medical Journal, 1994. **309**(6968): p. 1566.
- 20. Godlee, F., *WHO at country level--a little impact, no strategy.* BMJ: British Medical Journal, 1994. **309**(6969): p. 1636.
- 21. Godlee, F., *WHO's special programmes: undermining from above.* BMJ: British Medical Journal, 1995. **310**(6973): p. 178.
- 22. McNeil DG Jr., *Gates Foundation Criticized*. The New York Times 2008 [cited 2014 March 17]; Available from: http://www.nytimes.com/2008/02/16/science/16malaria.html?r=0
- 23. WHO. *Expanded programme on immunization*. 2014; Available from: http://www.wpro.who.int/immunization/about/en/.
- 24. Machigaidze S, Wiysonge CS, Hussey GD, *Strengthening the Expanded Programme on Immunization in Africa: Looking beyond 2015.* PLoS One, 2013. **10**(3): p. e1001405.
- 25. Collier R, WHO reforms long overdue, critics say. CMAJ, 2011. **183**(14): p. 1574-1575.
- 26. Chow JC, *Is the WHO becoming irrelevant?: Why the world's premier public health organization must change or die.* Argument 2010 [cited 2014 March 12]; Available from: www.foreignpolicy.com/articles/2010/12/08/is the who becoming irrelevant\.
- 27. WHO. *NCD Surveillance Strategy*. 2014 [cited 2014 March 17th]; Available from: http://www.who.int/ncd surveillance/strategy/en/.
- 28. Nugent RA, Fiegl AB, *Where have all the donors gone? Scarce donor funding for non-communicable diseases (Working Paper 228)*, Center for Global Development, Editor 2010: Washington [cited 2014 March 17]; Available from: http://www.cgdev.org/publication/where-have-all-donors-gone-scarce-donor-funding-non-communicable-diseases-working-paper
- 29. Cassels A, Smith I, and Burci GL, *Reforming WHO: the art of the possible.* Public health, 2014. **128**(2): p. 202-204.
- 30. Ottersen OP, Dasgupta J, Blouin C, et al., *The political origins of health inequity: prospects for change.* The Lancet, 2014. **383**(9917):p. 630-667
- 31. Ferris, E. *Faith-based and secular humanitarian organizations*. 2005 [cited 2014 February 21]; 311-325]. Available from: http://www.icrc.org/eng/resources/documents/article/review/review-858-p311.htm.
- 32. GAO. Faith-Based and Community Initiative: Improvements in Monitoring Grantees and Measuring Performance Could Enhance Accountability. 2006 [cited 2014 February 21]; Available from: http://www.gao.gov/products/GAO-06-616.
- 33. WHO. Faith-based organizations play a major role in HIV/AIDS care and treatment in sub-Saharan Africa. Media Centre 2007 [cited 2014 February 21]; Available from: http://www.who.int/mediacentre/news/notes/2007/np05/en/.
- 34. Abanilla PKA, Huang K, Shinners D, et al., *Cardiovascular disease prevention in Ghana: feasibility of a faith-based organizational approach*. Bulletin of the World Health Organization 2011 [cited 2014 February 21]; Available from: http://www.who.int/bulletin/volumes/89/9/11-086777/en/.
- 35. Kagawa RC, Anglemyer A, and D. Montagu. *The scale of faith based organization participation in health service delivery in developing countries: systematic [corrected] review and meta-analysis.* 2012 [cited 2014 February 21]; Available from: http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0048457.
- 36. Carter Center, *Annual Report 2011-2012*. 2012 [cited 2014 February 21]; Available from: http://digital.turn-page.com/i/121043.
- 37. CARE. *Where We Work*. Our Work 2013 [cited 2014 February 24]; Available from: http://care.org/work.

- 38. IANPHI. *Our Members*. Member Countries 2013 [cited 2014 February 24]; Available from: http://www.ianphi.org/membercountries/index.html
- 39. IANPHI. *About NPHIs*. Who We Are 2013 [cited 2014 February 24]; Available from: http://www.ianphi.org/whoweare/aboutnphis/index.html.
- 40. Koplan JP, Dusenbury C, Jousilahti P, et al., *The role of national public health institutes in health infrastructure development.* British Medical Journal 2007. **335**(7625):p. 834-835
- 41. INVS. *About INVS*. 2011 [cited 2014 March 12]; Available from: http://www.invs.sante.fr/en/Invs_en/About-InVS.
- 42. CDC. *About CDC*. 2013 [cited 2014 March 12]; Available from: http://www.cdc.gov/about/default.htm.
- 43. CDC. *Global Health*. 2014 [cited 2014 March 12]; Available from: http://www.cdc.gov/globalhealth/index.html
- 44. ECDC. *About Us.* 2014 [cited 2014 March 12]; Available from: http://www.ecdc.europa.eu/en/aboutus/Pages/aboutus.aspx.
- 45. NIH. About NIH. 2014 [cited 2014 March 12]; Available from: http://www.nih.gov/about/
- 46. NIH. Enhancing the Vitality of the National Institutes of Health: Organizational Change to Meet New Challenges. 2003 [cited 2014 February 24]; Available from: http://www.nap.edu/openbook.php?record_id=10779.
- 47. NIH. *Charter*. Scientific Management Review Board 2011 [cited 2014 February 24]; Available from: http://smrb.od.nih.gov/charter
- 48. *National Institutes of Health Reform Act of 2006*. 109th Congress 2006 [cited 2014 February 24]; Available from: http://olpa.od.nih.gov/legislation/109/publiclaws/reformact06.asp.
- 49. NIH. *Report on Deliberating Organizational Change and Effectiveness*. Scientific Management Review Board 2010 [cited 2014 March 12]; Available from: http://smrb.od.nih.gov/documents/announcements/DOCE_112010.pdf
- 50. NIH. Report on Translational Medicine and Therapeutics. Scientific Management Review Board 2010 [cited 2014 March 12]; Available from: http://smrb.od.nih.gov/documents/reports/TMAT_122010.pdf

Acknowledgements

The Emory Global Health Case Competition Planning Committee gratefully acknowledges the dedication and contributions of each of the Writing Team members.

Writing Team and Emory University Affiliations

Alfonso C. Hernandez-Romieu, Rollins School of Public Health alumnus (*lead author*) Shreya Rao, School of Medicine (*lead author*)

Michael Arenson, Emory Institutional Review Board, Laney Graduate School alumnus Suraja Raj, Rollins School of Public Health alumnus

Rebekah Schicker, Nell Hodgson Woodruff School of Nursing and Rollins School of Public Health

Abby Rives, Emory University School of Law

Karen Siegel, Laney Graduate School and Rollins School of Public Health Emma Sizemore, Emory School of Medicine and Rollins School of Public Health Mohammed K. Ali, Rollins School of Public Health (*Faculty Advisor*)

The Case Writing Team also recognizes valuable inputs and expert reviews from Drs. Jeffrey Koplan, Robert Breiman, Wesley Longhofer, and Jonathan Grund.

The Emory Global Health Case Competition Planning Committee gratefully acknowledges the logistics support and leadership of: Meg O'Connor, Lilly Webster, Pari Chowdhary, and Rebecca Baggett.

The Emory Global Health Case Competition gratefully acknowledges support from the following organizations:

