

The Global Health Regime

Issue Brief

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Overview

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Scope of the Challenge

Despite medical advances and improvements in sanitation, water supply, nutrition, housing, and education, poor health continues to plague many countries in the world today. Infectious diseases kill approximately fifteen million people each year, and more than four million die from AIDS, malaria, or tuberculosis alone. A disproportionate share of this suffering occurs in developing countries. New threats, such as severe acute respiratory syndrome (SARS) and recombinant flu strains, continue to arise. Meanwhile, health conditions traditional to wealthier nations—including tobacco consumption, obesity, diabetes, and other noncommunicable diseases (NCDs)—are increasingly prevalent in the developing world. Global public health continues to be undermined by negative environmental, political, and economic factors from pollution to violent conflict to limited food production, and even a new, man-made threat—the specter of biological attacks.

The expansive and evolving nature of global health challenges exert constant pressure on national governments charged with safeguarding citizens' health and on the international institutions engaged in controlling the cross-border spread of disease and curbing dangers from noncommunicable diseases. Public health actors are generally motivated by a mix of development, humanitarian, economic, and security interests.



Public attention to global health has grown at an unprecedented pace over the past half century. A surge in both funding and staffing has helped successfully eradicate smallpox, decrease AIDS mortality, and raise average global life expectancy from forty to sixty-five years. The shift has rightly been called a [public health revolution](#).

The surge in funding has spawned numerous organizations dedicated to improving public health worldwide. Some, though, have overlapping mandates, and coordination efforts are at times limited. Additionally, programs focused on alleviating specific diseases can often siphon resources from local infrastructure and reduce comprehensive health services.

More needs to be done to coordinate actors and improve coherence across the global health landscape. Through centralized fora like the [World Health Organization](#) (WHO), countries should clarify priorities for the global health agenda, allocate more attention to health-related needs, advocate for greater accountability among nongovernmental organizations, and improve the monitoring and evaluation of global health initiatives.

Meanwhile, as the global economic slump continues to linger, international institutions need to help ensure sustained financing for global health, improve alignment of recipient- and donor-country priorities, increase harmonization of multiple donor efforts, and engage the private sector to help mitigate persistent inequities in the development and delivery of resources to meet global public health challenges.

Strengths & Weaknesses

Overall assessment: Unprecedented focus and funding, yet anarchic

The institutional landscape for global health is more populated, diverse, and better resourced than it was twenty years ago. The traditional multinational institutions that first dominated after World War II—primarily the [World Health Organization](#) (WHO)—have been joined by a panoply of new multilateral initiatives, public-private partnerships, foundations, faith-based organizations, and nongovernmental organizations. Yet the effectiveness of this increase in players and resources is often diluted by an uncoordinated and incoherent system.

The WHO remains the primary organization involved in global health, responsible for health-related activities within the [United Nations](#) (UN). It plays a leadership role, spearheading research, policy,

and country-level training and support.

But the array of new players with expertise on global health is staggering. Within the UN, the [Joint United Nations Program on HIV/AIDS](#) (UNAIDS) and the [UN Children's Fund](#) (UNICEF) focus on particular global health issues. Other international organizations and programs with at least a partial mandate to address global health matters include the [Food and Agriculture Organization](#) (FAO), [World Trade Organization](#) (WTO), [International Labor Organization](#) (ILO), [UN Environment Program](#) (UNEP), and the [World Bank](#). Multilateral funding mechanisms have also appeared, such as the [Global Alliance for Vaccines and Immunization](#) (GAVI), and the [Global Fund to Fight AIDS, Tuberculosis, and Malaria](#) (Global Fund).

Regional organizations—including the European Union (EU), the Association of Southeast Asian Nations (ASEAN), the African Union (AU), and the Pan American Health Organization (PAHO)—have also become players in global health. Their combined work has strengthened systems, ensured universal health accessibility, and facilitated dialogue among member states, international institutions, and nonstate actors. Meanwhile, donor governments have launched major bilateral global health efforts (such as the [U.S. President's Emergency Plan for AIDS Relief](#), or PEPFAR), and a growing number of departments, including military and security agencies (such as the U.S. Department of Defense), have become involved in global health. All these official actors share space with a burgeoning number of nongovernmental organizations (NGOs), faith-based organizations, and foundations dedicated to advancing global health.

A rise in global health initiatives has accompanied this proliferation of actors. Three of the eight UN [Millennium Development Goals](#) (MDGs) focus squarely on health objectives and another four relate to the social determinants of health. The Group of Eight (G8) now regularly places public health on its annual summit agenda—and the new Group of Twenty (G20) prioritized global health at its 2011 summit in France. In 2000, the UN Security Council [declared](#) HIV/AIDS a threat to international peace and security. The multilateral Health Eight (H8)—a group of eight organizations working on global health issues—was also established to coordinate global health initiatives and determine uniform international health priorities.

In all, [more than](#) forty bilateral donors, twenty-five UN agencies, twenty global and regional funds, and ninety global initiatives target health activities and assistance. This institutional richness creates huge coordination challenges, not least for developing countries on the receiving end of outside attention. As a partial response, the [International Health Partnership](#) and related activities (the so-called IHP+) seeks to coordinate the activities and funding commitments of outside actors around country-led strategies.

New treaties have been negotiated to help strengthen aspects of the global health regime. The revised [International Health Regulations](#) (IHR 2005) established rules and processes that allow the WHO and its member states to identify and respond to international public health emergencies more effectively. The regulations require state parties to report significant disease events and to develop and maintain core public health surveillance and response capacities. Similarly, the [Framework Convention on Tobacco Control](#) (FCTC), adopted by the WHO in 2003, is the first international convention under Article 19 of the WHO Constitution. It has helped to mobilize an unprecedented, worldwide anti-tobacco movement. In addition, the [Global Code of Practice on the International Recruitment of Health Personnel](#), adopted by the WHO in 2010, aims to mitigate the imbalances of health workers between developed and developing countries.

Much-needed funding has also increased. International financial support for global health efforts ballooned from \$5.6 billion in 1990 to over [\\$27 billion](#) in 2010, thanks in part to the development of [innovative financing mechanisms \(PDF\)](#). Of special note is the prominent role that NGOs, including philanthropic foundations and private corporations, play in championing and financing public health programs. The [Bill and Melinda Gates Foundation](#), in particular, provides approximately [five percent](#) of all funding for global health assistance. This surge in resources has contributed to several [notable successes](#), including expanded access to medicines, improved disease detection, and growing community participation.

Despite this progress, several significant weaknesses are apparent. First, inadequate coordination and leadership threaten the efficacy of today's global health institutions. Although effective coordinating bodies have sprung up, much of the activity in the field of global health reflects poorly integrated, donor-driven, disease-specific initiatives, often with weak accountability. Such a patchwork has led one prominent scholar to describe the system not as a regime, but as a [loosely configured complex](#).

Second, increases in funding and the proliferation of organizations and initiatives have not adequately addressed continued health disparities between affluent and poor countries. Many of the benefits derived from globalization have disproportionately accrued to wealthy countries, leaving poor nations vulnerable to acute and chronic health threats. Given these challenges, progress toward achieving the health-related [MDGs](#) including a 75 percent reduction in maternal mortality between 1990 and 2015—has been slow.

Additional weaknesses in global health governance include inadequate disease surveillance, inequitable access to vaccines and other essential medicines, a focus on single diseases rather than public health systems, and comparatively little donor attention and resources devoted to noncommunicable diseases.

Moving forward, the United States and the international community face three main challenges: first, to sustain the resources needed to address an expanding agenda; second, to minimize health disparities between rich and poor countries; and, third, to correct an absence of coordination and leadership.

Targeting noncommunicable diseases: Growing awareness, and increased international action

Noncommunicable diseases have traditionally received little attention from the international community, yet they pose an important and growing threat to public health. In 2008, the [World Health Organization](#) (WHO) [reported](#) that chronic, noncommunicable diseases are the leading cause of death globally, despite being mostly preventable. As a result, the WHO is increasing its efforts to target noncommunicable diseases around the world.

Noncommunicable diseases—cardiovascular problems, diabetes, cancer, and chronic respiratory illness, to name a few—have often been considered diseases of affluence because they reflect ill-health resulting from improved living standards. Today, their prevalence is more global. They correspond to shifts in diet and nutritional standards as well as to aging, because older populations have higher levels of cardiovascular disease and cancer. Although noncommunicable diseases remain the leading cause of death in the West, risk factors stemming from tobacco and alcohol consumption, unhealthy diets, and physical inactivity are increasingly driving mortality rates in poor countries, hampering socioeconomic conditions for growth and development. In the South Pacific region, for instance, noncommunicable diseases [account](#) for 75 percent of annual fatalities. In countries with a burgeoning middle class—namely, India and China—food consumption patterns have [changed](#) in favor of a higher protein-filled diet, but this has been accompanied by a massive increase in per capita consumption of salt, sugar, and trans fats, which contribute to the onset of noncommunicable diseases.

Aware of the growing threat, the WHO created the [Global Strategy on Diet, Physical Activity, and Health \(PDF\)](#) (DPAS) in 2004, aimed at raising awareness and reducing the health risk factors associated with sedentary lifestyles and a poor diet. The DPAS has engaged relevant figures around the world, including national governments, private actors, and United Nations agencies—such as the [Food and Agricultural Organization](#) (FAO) and the [Codex Alimentarius Commission](#)—to promote awareness of the harmful effects of poor lifestyle choices and to incorporate health policies at the country level. Implementation, however, has been slow as the WHO also continues to allocate a substantial amount of resources to a multitude of other international health concerns. This is especially so among low- and middle-income countries, where noncommunicable diseases compete for resources allocated to prevalent infectious diseases. The DPAS also prompted controversy from companies concerned about adopting restrictions on marketing certain food and beverage products.

The WHO has also begun to focus on [obesity](#) and alcohol consumption. For the latter, based on consultations with states, it has drafted a [global strategy \(PDF\)](#) on harmful use of alcohol. In January 2010, the WHO Executive Board adopted a resolution recommending the World Health Assembly adopt this strategy. On obesity, the WHO has recognized the problem as growing and in some countries acute. Its efforts, however, are limited to advocacy and the collection and analysis of relevant data. In some cases, it has joined forces with regional organizations. One such example is the European Union (EU), which has adopted measures to counteract obesity (drafted by the WHO regional office for Europe) within the EU Charter.

The private sector has started to take a more active role in responding to the noncommunicable epidemic. Companies like Pepsi and Nestle are making efforts to limit sugar, salt, trans fats, and net calories in their food and drink products. According to [Derek Yach \(PDF\)](#), Pepsi's director of global health policy, major companies are also showing leadership in developing products based on organic ingredients and using their marketing capital to promote a healthy lifestyle and diet.

Despite roadblocks, significant progress has also been made in rallying global support against tobacco. The WHO's most significant achievement has been the [Framework Convention on Tobacco Control](#) (FCTC)—the first convention adopted under Article 19 of the WHO Constitution—which came into force in 2005 and as of 2010 has more than 170 state parties. The FCTC requires signatories to restrict the influence of the tobacco industry on national health policies and ensure that safeguards are in place to protect the public from secondhand smoke. Other provisions include limiting or banning advertising and ensuring clear health warnings on tobacco products. The WHO has developed guidelines for meeting obligations and provided assistance to enable implementation. According to the WHO, most parties [have](#) "passed or are renewing and strengthening national legislation and policies" related to the treaty. That said, raw figures point to an uphill battle on tobacco use. Given rising populations in developing countries, overall tobacco use is increasing and efforts to curtail it remain underdeveloped.

Further showing its commitment to combat NCDs, in September 2011, the United Nations held its first [Noncommunicable Disease Summit](#) to address the threat posed by NCDs within developing, low-, and middle-income countries (LMICs). Although the summit presented an opportunity for NCDs to gain prominence within the global health community, the lack of outcome disappointed many public health experts who had hoped for concrete and time-specific goals for reducing the prevalence of NCDs. This conference is part of the World Health Organization's [2008-2013 Action Plan](#) for the Global Strategy for the Prevention and Control of Noncommunicable Diseases.

Continuing the battle against HIV/AIDS: Unprecedented support, but still inadequate

Responding to the Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) pandemic has been a critical challenge for nearly three decades. In 1986, the World Health Organization (WHO) created the [Global Program on AIDS](#) (GPA). Initially, GPA—and the Joint United Nations Program on HIV/AIDS—tried to create national AIDS commissions in every country, run at the highest levels of government. These strategies, however, were not effective in stemming the growth of the pandemic.

In 1996, research showed the efficacy of highly active antiretroviral therapy (HAART), marking a turning point in the HIV/AIDS pandemic. By 1999, the HIV battle shifted away from prevention toward treatment, and in particular to getting HAART into poor countries. This prompted attacks on [provisions](#) of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) on the grounds that the high cost of patented HAART—then averaging from \$10,000 to \$20,000 per patient annually—was immoral. Accordingly, [Merck](#) initiated efforts to promote universal access to HIV treatment, and later the [William J. Clinton Foundation](#) negotiated dramatic price reductions and generic manufacturing of antiretroviral drugs (ARVs). The efforts have brought the annual cost of treatment to less than \$300 per patient. Further reductions are expected.

Multilateral action on the disease accelerated in 2001, with a groundbreaking UN declaration that instructed all countries to fight HIV/AIDS through prevention, treatment, and long-term care. This new attention spurred the establishment of the [Global Fund to Fight AIDS, Tuberculosis, and Malaria](#) (Global Fund) at the Genoa Summit of the Group of Eight (G8) in 2001. Along with the [U.S. President's Emergency Plan for AIDS Relief](#) (PEPFAR) and [World Bank's Multi-Country HIV/AIDS Program \(MAP\) for Africa](#), the Global Fund has been critical in supporting prevention, counseling, care, and treatment programs.

But economic difficulties in major donor countries have intensified debates about how best to spend existing resources in the face of increasing demand. After committing to help achieve "universal access" to HIV treatment—defined as ten million people by 2010—and to double aid for health and poverty reduction to \$50 billion per year, the G8 backed off its pledge and [restated](#) its goal in June 2011 as fifteen million people by 2015. Despite these setbacks, funding for HIV/AIDS has suffered the least from contracted foreign aid budgets. A [record 1.4 million](#) began treatment in 2010, reflecting the continued increase in access to care for HIV/AIDS.

Private actors have helped bridge some of the gaps in financing. Sustained efforts by [foundations](#), faith-based organizations, and nongovernmental organizations, for example, have been critical in achieving the yearly decrease in new infections globally. Independent organizations, such as the [International AIDS Vaccine Initiative](#) and the [Global HIV Vaccine Enterprise](#), continue to

work toward an HIV vaccine (which unfortunately remains elusive).

Growing evidence, however, indicates that prevention efforts have been too limited. HIV incidence in the United States rose by nearly 50 percent between 2005 and 2009. The large numbers of new infections globally each year—**2.5 million** in 2011—are increasing the number of people in need of ARVs, even as the availability of ARVs stagnates or declines. Intravenous drug users continue to be at high risk of infection, and antinarcotics politics complicate prevention strategies. In Africa, Asia, and Eastern Europe, blood supplies remain unsafe and syringes are often reused. Furthermore, failure to tightly integrate tuberculosis and HIV diagnosis and treatment has sparked a tuberculosis pandemic, marked by increasing rates of drug-resistance in tuberculosis strains. In response, the Joint United Nations Program on HIV/AIDS has called for a "**prevention revolution**" to halve the number of new infections by 2015.

Secretary-General Ban Ki Moon hailed an overall global decline in HIV infections in the 2011 Report on AIDS. At the release of the report, the UN also launched its **third major initiative** to fight HIV/AIDS that set a target of zero new infections and zero AIDS-related deaths by 2015. However, Secretary-General Ban acknowledged financial hurdles, noting that resources to fund AIDS relief plateaued at \$16 billion in 2007.

In May 2009, the World Bank published an independent evaluation of its \$2.46 billion HIV/AIDS portfolio, which included 106 projects in sixty-two countries. A quarter of the programs were deemed unsatisfactory or moderately unsatisfactory. The report concluded that the World Bank had underinvested in prevention for high-risk groups, inadequately monitored projects, and overestimated the capacity of nongovernmental organizations to design and implement AIDS interventions. The report recommended bolstering health ministries and civil society organizations, as well as more diligently monitoring and evaluating.

Over the past five years, life-saving drugs have been made more available by a factor of one hundred due to increased donor funds; defiance of HIV drug patents by the governments of Brazil, Thailand, and South Africa; and continued activism by civil society groups. New initiatives and medicine also show promise. A **new study of a microbicide gel** showed that the treatment could stop HIV transmission to women in 39 and 54 percent of cases. Additionally, in July 2010, federal researchers **released** findings of antibodies that were effective at neutralizing 90 percent of HIV strains that lead to AIDS, inspiring optimism that a vaccine might soon be achieved.

In addition, the **Medicines Patent Pool** was set up in July 2008 and aims to increase access to treatment by promoting price reductions of existing antiretroviral drugs, stimulating the production of newer first- and second-line drugs and increasing the number of generic producers of these medicines.

The first major [agreement](#) between a pharmaceutical company and the Patent Pool was finalized in July 2011, with assistance from the United Nations. UNAIDS also enacted [Treatment 2.0](#) (PDF), a new approach to simplify treatment and increase access to medicine, in order to decrease costs, reduce the burden on health systems, and improve the quality of life for people living with HIV. Modeling suggests that, compared with current treatment approaches, Treatment 2.0 could avert an additional 10 million deaths by 2025.

Still, two broad challenges persist. First, the demand for ARVs far exceeds the supply. Approximately [5.2 million](#) people have accessed HIV treatment in low and middle-income countries, up 30 percent from 2009, but more than double that need treatment immediately. Furthermore, price reductions for treatment have been negotiated for only a small subset of drugs, while newer, simpler, and more palatable formulations remain unaffordable in most high-prevalence countries, including Swaziland and Botswana. Finding a balance between market-driven innovation that creates new drugs and the imperative to ensure access to HIV/AIDS medicine and vaccines in low- and middle-income countries remains elusive.

Management of acute pandemics: Testing surveillance and alert systems; response systems under stress

Pandemic preparedness requires a standardized outbreak alert system linked to concrete actions by national and local health authorities. In 2000, the [World Health Organization](#) (WHO) established the [Global Outbreak Alert and Response Network](#) (GOARN)—a decentralized network of technical experts and regional surveillance programs from the United Nations, civil society partners, and academic centers—designed to detect and coordinate the response to disease outbreaks.

The WHO also established a six-level pandemic alert system for influenza based on the geographic spread of the disease and its human transmissibility. This system, however, has been criticized for failing to consider the severity of each virus, to link threat levels to tangible actions, and to harmonize existing country alert systems. By contrast, the U.S. alert system has five threat levels that correspond to deaths from infection, but fails to consider human-to-human transmission or geographic spread. Efforts to improve and synchronize the alert systems are underway, and will ideally convey the severity of infection, risk of death, geographic spread, and contagiousness in a combined metric, as well as suggest clear actions linked to threat levels.

Following the severe acute respiratory syndrome (SARS) and H5N1 (avian flu) outbreaks, the WHO redoubled efforts to modernize its surveillance and warning systems. In 2007, WHO member states adopted the [International Health Regulations](#) (IHRs) for pandemic preparedness and response. The regulations have helped facilitate coordination among states, but pandemic management is still

relatively haphazard.

The revised IHRs require governments to report public health emergencies of international concern to the WHO within twenty-four hours, permit use of nongovernmental disease detection data to supplement government data, and obligate countries to improve their capacity to respond to health crises. The revisions—which require all signatories to comply fully with core surveillance and response capacity requirements by 2012—are legally binding but contain no provisions for enforcement.

Country compliance with the IHRs has been mixed. In the 2009 H1N1 (swine flu) outbreak, Mexico exceeded IHR obligations by implementing a rapid domestic response, communicating with neighboring states and the WHO, and sharing viral samples with other national and multinational health authorities. Unfortunately, Indonesia performed less admirably during the various H5N1 (avian flu) outbreaks. Even after the revised IHRs went into force, Indonesia refused to report new cases. Fearing that multinational corporations would use the samples to develop a vaccine (and turn a profit by selling it back to affected countries), the Indonesian minister of health justified his refusal to share samples by invoking "[viral sovereignty](#)"—the principle that infectious diseases belong to the countries in which they are discovered endemic. This is a troubling principle that could undercut timely international cooperation and monitoring in future crises. The episode underscored the need for mechanisms to persuade recalcitrant states to cooperate on critical matters of global health.

But the WHO has also been criticized for sounding false alarm bells. Critics have attacked its handling of the 2009 H1N1 pandemic for causing undue panic. The Council of Europe [investigated \(PDF\)](#) the WHO for misconduct, finding that the WHO exaggerated the dangers of the pandemic and above all lacked transparency throughout the process. The WHO was also under investigation by the Review Committee established under the revised IHRs for its use of the revised regulations and its overall actions during the 2009 pandemic. The [committee](#) ultimately concluded that the adoption of IHR 2005 helped make the world better prepared to cope with public health emergencies, even though the core national and local capacities called for in the IHR are incomplete and nonexistent in many regions around the world.

Disputes over intellectual property protection are another major obstacle to combating acute pandemics. Emerging market countries—notably Indonesia, Thailand, China, India, Brazil, and Malaysia—have criticized the World Trade Organization's (WTO's) Trade-Related Aspects of Intellectual Property Rights (TRIPS) provisions, which are frequently blamed for drug and vaccine pricing that keeps some medicines out of the reach of much of the world's population. Since the Doha Declaration in 2001, the same criticisms have been levied against the European Union, United States, and Japan to insert enhanced intellectual property provisions into trade agreements, most notably the Anti-Counterfeiting Trade Agreement.

Addressing neglected tropical and other infectious diseases: Growing attention, but still addressed weakly

The global health agenda has not adequately focused on some of the infectious diseases that continue to plague, debilitate, and kill millions in the developing world. Diarrheal and enteric diseases [include](#) some types of hepatitis, salmonella, cholera, typhoid, and an array of other viral, bacterial, and parasitic pathogens. They remain the second-leading cause of fatality for children, killing nearly 1.7 million every year, and are the greatest contributor to childhood malnutrition. Worldwide, diarrheal diseases [account](#) for 4 percent of all deaths and 5 percent of health-related disabilities. Yet, unlike HIV/AIDS, these diseases pose no serious threats to the national interests of powerful countries, perhaps accounting for the neglect.

Relative to the global impact of these diseases, funding and dedicated advocates have been lacking historically. The situation, however, is improving. The [Bill and Melinda Gates Foundation](#) is investing in research and development for new treatments, along with improved delivery for existing interventions, such as making vaccine distribution and administration less costly. The foundation is also trying to promote and implement structural solutions, such as improved access to fresh water, sanitation systems, and nutrition. Advances have also been made in vaccination, with the [Global Alliance for Vaccines and Immunizations](#) (GAVI) leading the way. In July 2011, the [United Nations Foundation](#) and GAVI [pledged](#) \$4.3 billion toward vaccinating 250 million children by the year 2020. These vaccines will help protect against a variety of preventable, life-threatening diseases, including vaccines against diarrhea and pneumonia which are not readily available to children in developing countries. Vaccine pledges are a significant step toward ensuring comprehensive global childhood immunization, which is one of the most cost-effective and sustainable methods for improving health worldwide.

Another subset of problematic infections is known as neglected tropical diseases (NTDs). NTDs thrive in specific climates, are often linked with impoverished environments, and tend to be spread by insects, contaminated water, or infested soil. They currently affect more than [one billion \(PDF\)](#) of the world's poorest people, many of whom suffer from multiple NTDs. In the past few years, great strides have been made in understanding the complexity and character of NTDs. Their direct link to poverty has led the World Health Organization (WHO) to consider [poverty control \(PDF\)](#) part of its global health strategy.

The WHO has also launched a comprehensive [Preventive Chemotherapy and Transmission Control](#) (PCT) program that works with national governments to train health specialists and advocate disease control measures. In partnership with the WHO, numerous NGOs have begun to develop initiatives to eradicate and eliminate NTDs. The [Carter Center](#), for instance, has helped eradicate

Guinea worm in some twenty countries and eliminate onchocerciasis (river blindness) in much of the Americas. The Gates Foundation has also prioritized NTDs. In addition, the Mectizan Donation Program, established by Merck in 1987, began donating mectizan for treatment of onchocerciasis, and Merck has since partnered with GlaxoSmithKline to provide albendazole to treat lymphatic filariasis (elephantiasis) in coinfecting individuals.

As part of its [Global Health Initiative](#) (GHI), the U.S. government has pledged to increase funding for research and treatment of NTDs, and it plans to increase funding from \$15 million in 2006 to \$155 million in 2011. Targeted diseases include trachoma, schistosomiasis, onchocerciasis, lymphatic filariasis, and soil-transmitted helminthiasis. However, this new focus on NTDs and other initiatives, combined with the effects of the economic crisis in donor countries, has meant the [potential shift](#) of resources away from other health efforts.

NTDs are starting to make their way onto the global health agenda, but the crux of the problem is in [delivering \(PDF\)](#) needed medications and therapies to affected communities and addressing infrastructure issues. For the most part, NTD drugs are inexpensive, but serious supply shortages and distribution challenges persist. Additionally, financing to purchase existing drugs is often limited. Despite commitments by the donor community and the Group of Eight, these tropical infections and their underlying causes will need additional, sustained focus and funding.

Managing biosecurity: Rudimentary mechanisms

The international community continues to lag in its efforts to deter and prepare for the use of biological weapons. Existing governance mechanisms reflect Cold War concerns about state proliferation of weapons, rather than the threat of terrorism by nonstate actors. The stakes of such negligence are high. Depending on the severity of the pathogen, a biological agent deployed as a weapon whether improvised or stolen could conceivably kill millions, bring global commerce to a grinding halt, and have lingering effects for generations. Smaller-scale attacks, like the 2001 anthrax scare, can cause widespread panic and disruption, even when the death toll is relatively low.

Managing biological weapons is made more complex by the nature of the threat. Even if existing multilateral agreements were entirely effective, biological agents cannot be managed without local controls and cooperation among nonstate actors. Most biological agents are manufactured and housed in the private sector (particularly in laboratories, hospitals, and universities), which requires enhanced coordination with each of type of facility. Inspections are all the more difficult because the equipment, materials, and agents used for weapons are often also appropriate for legitimate commercial use.

Despite calls from United Nations (UN) secretary-general Kofi Annan in 2006, no global forum

convenes all the relevant actors to promote a dialogue on safeguards for biological agents. Moreover, the rapid dissemination of weapons-manufacturing information and the ease with which materials can be obtained have rendered the threat of biological weapons more diffuse. Over the last decade, it has become simpler to manipulate viral and bacterial genes to increase their harmfulness and transmissibility. A movement is also growing that promotes in-house production of life forms and open-source sharing of biological "recipes" online.

On the positive side, initial arrangements to counter the threats of biological weapons have emerged. These include [UN Security Council Resolution 1540](#), which obligates UN member states to prohibit nonstate actors from acquiring, pursuing, or obtaining weapons of mass destruction. Additionally, the Global Health Security Initiative, which is an informal partnership among national health ministries from eight countries (including the United States), the European Commission, and the World Health Organization (WHO) seeks to strengthen global preparedness against biological threats. The reporting requirements of the revised IHRs now apply to acts of biological terrorism, and Interpol has bolstered its efforts to prevent bioterrorism. In the United States, the Obama administration has released a [National Strategy for Countering Biological Threats](#) and a first-of-its-kind [National Health Security Strategy](#).

Under the leadership of WHO, the international community increasingly recognizes the importance of public health surveillance and intervention capabilities in countering the biological weapons threat. The WHO's [Global Outbreak and Response Network](#) (GOARN) is part of a global early warning and surveillance network that can identify unusual disease events rapidly, although it does not provide specific response protocols.

The main international legal instruments relevant to combating bioattacks at the global level remain the 1925 [Geneva Protocol](#) and the 1972 [Biological and Toxin Weapons Convention](#) (BTWC), both of which ban states from using biological weapons but are widely considered inadequate and flawed. The Geneva Protocol prohibits use of biological weapons in warfare, but [lacks \(PDF\)](#) any institutional capacity to monitor compliance. The BTWC goes further in banning development, production, acquisition, and stockpiling of biological weapons but also lacks the rigorous system of inspections that would be necessary for monitoring compliance. Efforts to add a [protocol](#) to the BTWC, which would address this shortcoming by establishing a mechanism for information exchange and routine inspections of facilities, have failed. Currently, only about [half](#) of BTWC signatories submit voluntary monitoring reports.

Unlike the nuclear and chemical weapons regimes, the BTWC lacks a permanent institutional structure that could help implement the convention and promote peaceful use of biotechnology. It includes a provision whereby a state party can appeal to the UN Security Council to enforce the convention

against an alleged violator; however, no state has yet done so. The BTWC has an Implementation Support Unit (ISU), but it has a limited mandate and a staff of only three. Discussions on modernizing the BTWC—through new lab safety standards, new reporting requirements, increased enforcement of safety measures, and bolstering of the ISU—have failed to translate into concrete revisions of the convention.

Nearly ten years after the 2001 U.S. anthrax attacks, controversy continues to surround the Federal Bureau of Investigation's handling of the matter, indicating the need for greater U.S. government—as well as global—attention to biosecurity issues. It will be imperative at the [Seventh Review Conference of the BTWC](#), in December 2011, to agree on new security standards for laboratories that work with high-risk agents and enforce standards more rigorously. Yet such steps are fraught with technical and practical complexities. These include how to define potential biological agents, how to surmount the financial and legal burdens associated with implementation, and how to balance these goals with other objectives, such as development of medical countermeasures and disease surveillance.

Developing health systems in poor countries: *Minimal progress*

Poor countries often suffer from inadequate health systems. These weaknesses typically include shortages of health professionals, chronic underfunding, dilapidated or nonexistent infrastructure, and a persistent lack of access to essential medicines, including vaccines. Margaret Chan, director general of the World Health Organization (WHO), has [identified](#) weak health systems as the greatest threat to global health goals. Although most countries have adopted the principle of health as a fundamental [human right](#), too few developing nations have actually strengthened their health systems

A significant portion of global health financing today is dedicated to vertical, disease-specific programs and initiatives. These include the [President's Emergency Plan for AIDS Relief](#) (PEPFAR), the [President's Malaria Initiative](#) (PMI), the [Global Fund for AIDS, Tuberculosis, and Malaria](#) (Global Fund), and several [Bill and Melinda Gates Foundation](#) initiatives. PEPFAR alone is contributing \$48 billion to research, care, prevention, and treatment of HIV over a period of five years. In 2011 President Obama's proposed budget included almost [\\$7 billion for PEPFAR](#), representing a 1.8 percent increase on the previous year. However, according to some activists this increase actually represents a 'step backwards' due to increasing demand for treatment and inflation. Furthermore, additional focus has been placed toward improving MDGs 4 and 5 relating to maternal and child health. A 2010 MDG Summit and a 2010 G8 Summit further committed to providing additional funding to support childbirth, maternity, and early childhood health.

But such programs often reflect donor priorities rather than local needs and are often independent, uncoordinated, and unaccountable, either to their intended beneficiaries or taxpayers. Rather than

respond to host country requests, donors often impose their own funding priorities, and programs tend to be poorly integrated into local public health systems. Funders and implementers have a vested interest in minimizing failures, and host countries are wary of holding donors to account for fear of driving away badly needed resources. What accountability exists comes in the form of self-regulation, uneven oversight from funders, and monitoring by (typically overstretched) health ministries in host countries. In sum, incentives for honest evaluations are few.

Some argue for greater coordination between vertical—or disease-specific—and horizontal programming. One initiative, known as [fifteen by 2015](#), aims to reallocate 15 percent of current funding by 2015. Meanwhile, in 2009, President Obama launched the [Global Health Initiative](#) (GHI) which targets health systems as well as single diseases. In March 2011, the Obama Administration released the [GHI Strategy Document](#), illuminating key aspects of the GHI approach and strategy. The report emphasized shifting U.S. health to an impact-based approach and focusing on areas where large, substantial health gains can be achieved.

Unfortunately, health systems in most developing countries depend on volatile donor funds. In 2006, donors supplied more than 40 percent of health system funds in eight African countries; many more African nations rely on external funding for more than 30 percent of their budgets. Donor support for health systems is critical, but donors must beware of generating negative, unintended consequences. Governments receiving development assistance for health [tend to invest](#) 43 percent fewer of their own resources for health-related activities, according to a Lancet study. To combat this risk, donors' governments will need to expand their country-level monitoring of how assistance impacts health care.

The emigration of qualified health professionals can also undermine health systems. The WHO [warns](#) that countries with fewer than 2.3 health professionals per thousand inhabitants will struggle to provide essential primary care services. The relevant figures for Africa and Southeast Asia are 1.3 and 1.7, respectively. Most low- and middle-income countries train far too few health professionals annually, and many locals who are trained immigrate to countries with higher salaries and better working conditions. For example, between 1993 and 2002, half of the doctors and one-third of all nurses educated in Ghana emigrated immediately. According to [Michael Clemens](#) at the Center for Global Development, 15 percent of registered nurses and 30 percent of doctors from sub-Saharan African work outside the continent.

There is no easy solution to this [brain drain](#). Restricting health worker emigration is not logistically feasible, and everyone has the right to pursue a better life. In May 2010, the World Health Assembly adopted the [Global Code of Practice on the International Recruitment of Health Personnel](#) (PDF) that aims to balance the interests of health workers with those of countries that lose them and receive them. Another initiative, the [Global Health Workforce Alliance](#), seeks to develop country

coordination and a code of ethical international recruitment.

A few attempts have been made to regulate migration of health professionals at national and regional levels. South Africa and the United Kingdom signed a Memorandum of Understanding (MOU) in 2003, in which the UK agreed to ethical recruitment practices, technical assistance, partnerships between hospitals, and time-limited placements of staff trained in South Africa. Countries in the Caribbean established uniform professional qualification standards for health workers and created a common market that permits their free movement in the region. Pending rigorous assessments, these approaches may provide models for developing countries.

Facilitating access to vaccines: Record progress, but more attention needed

Vaccines are often effective in preventing disease. The H1N1 (swine flu) pandemic revealed how rapidly a vaccine could be developed and manufactured on a large scale with the support of major developed economies. Nonetheless, the 2009 scare also highlighted critical gaps in financing and in the equitable distribution of much-needed vaccines around the world.

International efforts to control disease through vaccination are not new. In 1974, the World Health Organization (WHO) launched the [Expanded Program on Immunization](#) (EPI) to help vaccinate children in developing countries. Since 1970, the program has provided regular vaccinations through regional WHO branches. The most successful WHO achievement has been on smallpox, which in 1979 became the first infectious disease to be eradicated. More recently, international commitment has been jumpstarted by a joint WHO-United Nations Children's Fund initiative, the [Global Immunization Vision and Strategy](#) (GIVS), which looks to increase vaccine coverage by 2015 to meet the [Millennium Development Goals \(PDF\)](#).

According to the WHO's [flagship publication](#) on the issue, the last decade showed remarkable progress for vaccines. Some 120 vaccine products are now on the market, and eighty more are in the late stages of research and development. Moreover, scientific improvements (such as adjuvant compounds) have extended short supplies more than tenfold by stimulating the immune systems of recipients, making them more likely to ward off targeted infectious diseases (measles, polio, diphtheria, and the like). Newer vaccines—like those recently adopted to combat [meningitis](#) and [pneumonia](#)—are becoming more effective and cheaper to produce and disseminate.

Financing for vaccines has increased dramatically in the last few years, due partly to innovative financing and partly to new contributions. Most recently, at the 2010 World Economic Forum, the Bill and Melinda Gates Foundation [announced](#) a pledge of \$10 billion over the next decade for research, development, and delivery of [vaccines](#) for poor countries. Such new financing has helped alleviate

some shortfalls, but more funds are needed. According to the United Nations, national governments support about 40 percent of the costs for routine immunizations. For many developing countries, sustaining this commitment will be difficult. Multilateral funding is not enough to close the gap. The [Global Alliance for Vaccines and Immunizations](#) (GAVI) was able to overcome its \$4.3 billion funding shortfall in June 2011 at its first pledging conference. The pledges bring GAVI's total available resources for the period 2011 to 2015 to \$ 7.6 billion.

Yet, the pharmaceutical industry relies on a handful of firms to produce all the world's vaccines. Declining profitability from production suggests the need for stronger manufacturer incentives. In response, the [Center for Global Development](#), in partnership with public and private donors, helped promote the [Advance Market Commitments \(AMCs\) for vaccines](#). These firm commitments from multilateral donors incentivize manufacturers to develop vaccines that might otherwise be ignored. GAVI's Advance Market Commitment is piloting a new vaccine for [pneumococcal disease](#) (a common cause of pneumonia), though it has been criticized for protracted distribution timelines, and even accused of coercing developing countries to accept the new vaccine instead of an existing, less expensive alternative.

Another innovative financing mechanism launched by GAVI (with the World Bank as treasurer) is the [International Finance Facility for Immunization](#) (IFFIm). The mechanism makes use of pledges to issue bonds that generate readily available cash for immunization needs. To date, it has [raised](#) \$5.9 billion in pledges to be paid over twenty years.

Inequities in access to resources for pandemic management unfortunately persist. The 2009 swine flu outbreak is the most recent reminder. At first, access to H1N1 vaccine was largely restricted to high-income countries. Almost a year elapsed between the emergence of H1N1 in North America and the first population-based [distribution](#) of H1N1 vaccines in Africa. By the spring of 2010, the pandemic had petered out in high-income countries, which were then willing to donate unused stocks to poor countries.

Additionally, negotiations on sharing viruses and the benefits from their use have not progressed. Multilateral talks have been deadlocked, which only increases the challenge of vaccine distribution, particularly in developing countries.

Progress in developing vaccines for pandemics also continues to be a major challenge. Established in 1996, the [International AIDS Vaccine Initiative](#) (IAVI) develops and assesses candidate HIV vaccines and addresses previous impediments to developing vaccines. To date, IAVI has six vaccines in early-stage clinical trials in eleven countries. GlaxoSmithKline and the PATH Malaria Vaccine Initiative (MVI) have been working toward a vaccine targeted for infants and children in sub-Saharan

Africa since 2001. The vaccine, known as RTS,S is in the final stage of trials and, if results remain positive, will be ready for distribution by 2015.

Ensuring effective and sustainable financing: Significant progress, but uncertain future and fragmented focus

Development assistance for global health more than **doubled** between 2001 and 2007. The budget reached \$27 billion in 2010, fueled primarily by new financing mechanisms, though the growth rate has plateaued in the wake of the worldwide financial crisis. The current regime, however, may be neither sustainable nor appropriate given the global recession, escalating deficits, domestic healthcare shortfalls in developed countries, shifting priorities, and a greater donor focus on climate change.

The multitude of health actors does raise awareness and funding for global health, but activity lacks coordination and monitoring. Of the five largest financing mechanisms, one is bilateral (the President's Emergency Plan for AIDS Relief, or PEPFAR), one is multilateral (the World Bank), one is a private foundation (the Bill and Melinda Gates Foundation), and two are public-private partnerships (the Global Alliance for Vaccines and Immunizations, or GAVI, and the Global Fund to Fight AIDS, Tuberculosis and Malaria, or Global Fund).

Perhaps the biggest challenge is identifying sustainable, predictable, and adaptable funding streams. Health priorities in Bangladesh and Burkina Faso are different, and existing institutions do not easily accommodate these differences. Furthermore, most health financing comes from governments, which are unpredictable year to year, complicating long-term, strategic approaches.

In principle, the donor community has committed to work with developing countries to implement the **2005 Paris Declaration**, a set of guidelines to improve the effectiveness of development assistance. The emphasis is on developing country priority-setting, aligning donor funds to grantee agendas, harmonizing donor initiatives, monitoring program results, and establishing accountability between donors and recipients. A recent study of the declaration's impact, however, found that only 45 percent of development aid arrived on time and that many development programs continued to undermine local program work. In 2011, the **Busan Outcome Document of the High-Level Forum on Aid Effectiveness** recommitted governments to the Paris Declaration's core principles of strengthening country ownership and developing partnerships, and, for the first time, included emerging countries such as the BRICS as well as civil society organizations and private funders. However, despite monitoring mechanisms such as the **2011 Survey on Monitoring the Paris Declaration**, many original goals of the Paris Declaration have not been met.

In 2007, several initiatives were launched to enhance coordination among major donors. The

International Health Partnership and related initiatives (IHP+) aims to expand on the Paris Declaration principles and provide recipient governments with a greater stake, by focusing donor assistance on a centralized national health plan and budget. Similarly, the Health Eight (H8) partnership brings together eight major health organizations (the World Health Organization, United Nations Children's Fund, United Nations Population Fund, United Nations Joint Program on HIV/AIDS, Global Fund, GAVI, the Gates Foundation, and the World Bank) to strengthen efforts toward achieving the Millennium Development Goals (MDGs).

Progress, however, remains mixed. The 2011 MDG report [indicated](#) the nutrition, universal primary education, and child mortality were in danger of missing their 2015 targets. In early 2011, WHO director-general Margaret Chan highlighted "serious funding shortfalls" in a [speech](#) addressing how to more effectively use existing financing.

Continued economic difficulties in major donor countries have intensified the debate about how best to spend increasingly scarce resources. While the global financial crisis did not freeze increases in health funding, it has slowed its growth—from 13 percent annually in 2004 to 2008, to 6 percent in 2009 and 2010. Given that major new financing is unlikely in the near term, progress in providing health services in developing countries will require efficiencies in existing assistance levels, including through better alignment of donor and recipient priorities, enhanced coordination among the largest programs and institutions, rational divisions of labor at the national and local levels to reduce redundant services, and an improved evidence base to identify cost-effective interventions.

Some innovative financing approaches exist. The intergovernmental group [UNITAID](#) seeks to improve treatments for HIV/AIDS, malaria, and tuberculosis (primarily in low-income countries) through more affordable mechanisms. Since its founding in 2006, UNITAID has dispersed more than [\\$955 million](#) (PDF) to partners worldwide. Additionally, in March 2010, the Millennium Foundation launched [Massive Good](#) to help raise more funds for UNITAID. The initiative centers on the travel industry, giving anyone who buys an airline ticket online the option to donate to UNITAID. The International Finance Facility for Immunization of GAVI, mentioned earlier, was also innovative in raising quick cash for global health needs.

U.S. and International Global Health Policy Issues

Should the United States develop an integrated, coherent global health strategy?

Yes: An integrated approach is necessary in today's interconnected world. Programs that focus on a wide range of diseases and help bolster other countries' health infrastructures are the only way to combat the litany of global health threats. Efforts will be ineffective without supporting national health

systems, and funding must be given to programmatic issues that focus on maternal and child health to prevent diseases before they start. President Obama's [Global Health Initiative](#)—with its goals to improve health systems and fight diseases in coordination—is a step in the right direction. Important single-issue programs will remain a significant portion of the budget, but the strategy on the whole will be more flexible and more capable of addressing multiple issues—not only disease, but human rights, women's rights, country ownership of health issues, and international health governance as well.

No: A broad strategy takes away focus and funding from what single-issue programs already do well. The [President's Emergency Plan for AIDS Relief](#) (PEPFAR) and the [President's Malaria Initiative](#) have succeeded because of their relatively narrow focus, and the guarantee that funding would go directly to combating the targeted disease. Also, a mandate on a single disease does not mean that a program does not have an integrated approach. In PEPFAR's case, for example, efforts have involved childcare, hiring additional healthcare workers, and addressing the challenges of food and nutrition in addition to direct treatment. If single-issue programs are embedded in a broader strategy, there is no guarantee that such an integrated approach to disease will result, and critics [contend](#) that PEPFAR may end up competing with other diseases and issues for funding. In the end, a single comprehensive program with a large budget may face more funding challenges than multiple, smaller, single-issue programs where less money can have a more direct effect.

Should the United States push for a broader institutional focus to combat noncommunicable diseases (NCD) across the globe?

Yes: In 2008, the [World Health Organization](#) (WHO) [reported](#) that chronic, noncommunicable diseases are the leading cause of death globally, despite being mostly preventable. As a result, the United States should join forces with the WHO in increasing its efforts to target noncommunicable diseases around the world. Noncommunicable diseases also remain the leading cause of death in the West, as risk factors stemming from tobacco and alcohol consumption, unhealthy diets, and physical inactivity are increasingly driving mortality rates. In the United States alone, NCDs and other chronic diseases such as stroke account for [70 percent of deaths](#), limit the activities of tens of millions more Americans and cost the U.S. economy over [1.5 trillion](#) annually. According to the U.S. State Department, six strategies need to be implemented by the United States in order to curb the growth of NCDs in the United States and across the globe: collaboration across policy sectors, prioritizing high-impact and affordable strategies, knowledge sharing, greater scale and geographic spread for NCD programs, and an enhanced media presence.

No: Unlike illnesses caused by a mosquito, a virus or an infection, noncommunicable diseases (NCD) are linked to factors like food, tobacco, environmental pollution and a lack of exercise. Therefore, many people believe that NCDs are developed as a result of irresponsible personal choices, and thus

governmental money should not be allocated towards alleviating these self-inflicted diseases. In addition, the U.S. budget has little room to fund initiatives targeting the elimination of NCDs as the financial crisis drags on and should prioritize more pressing issues. At the same time, others believe that the private sector, such as the recent initiatives launched by Pepsi and Nestle to limit sugars, is a more efficient and cost-effective medium to prevent the spread of NCDs in the United States and abroad.

Should the G20 assume leadership in setting the global health agenda for the donor community?

Yes: In September 2009, the Group of Twenty (G20) replaced the Group of Eight (G8) as the world's premier economic forum, raising speculation that the G20 would become the steering group for other areas, including global health. Some [proponents](#) of the change note that the G20 includes developing countries—including South Africa, India, Brazil, and China—with health concerns not currently represented by the G8. Others note that the G8 has been neglecting its health agenda since the global recession. If the G8 continues to [wane \(PDF\)](#) in momentum and legitimacy, the G20 might become a natural forum for setting the global health agenda, ensuring the involvement of important nontraditional donors, and play a role beyond donor coordination. In 2004, the WHO's assistant director general [outlined \(PDF\)](#) three areas where G20 engagement would benefit the global health agenda: drawing attention to country and regional health crises; raising awareness for neglected health priorities; and holding leaders accountable for their health commitments.

No: The G8 remains the source of the overwhelming majority of official development assistance, including global health, and thus should remain the focal point for such efforts. The G8 also has a consistent record of prioritizing global health over the past decade, even if G8 members have sometimes failed to follow through on financial commitments. In the absence of firm leadership from the World Health Organization, the G8 has routinely driven the agenda for response mechanisms needed to address the most pressing global health problems. In 2001, G8 leaders supported the creation of the Global Fund to Fight AIDS, Tuberculosis and Malaria, backed initiatives to relieve debt in developing countries, and endorsed Kofi Annan's call to fight infectious diseases at a rate of \$7 to 10 billion annually. In 2005, the G8 summit held at Gleneagles, Scotland, promised "universal access" to HIV treatment—defined as 10 million people by 2010—and a doubling of aid for health and poverty reduction to \$50 billion per year.

These impressive commitments have proven difficult to recreate in the G20, which has to balance the interests of a larger and more diverse membership. While commitments were not met on time due to the financial crisis, the G20 is even more unlikely to build such unified pledges from its membership and ensure follow through.

Should the United States ratify the World Health Organization Framework Convention on Tobacco Control?

Yes: The World Health Organization Framework Convention on Tobacco Control (WHO FCTC) is the first international treaty adopted under Article 19 of the WHO Constitutive Act. It views tobacco use as a global problem that demands coordinated solutions, and seeks to reduce both supply and demand for tobacco products by limiting advertising and indoor smoking, encouraging states to raise tobacco taxes, placing prominent warnings on cigarette packages, and preventing smuggling. According to the Centers for Disease Control and Prevention (CDCP), more deaths occur annually due to tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, motor vehicle injuries, suicides, and murders combined. All state parties to the FCTC are required to harmonize their national tobacco regulations to certain minimum standards.

Former president George W. Bush signed the FCTC in 2004, but the U.S. Senate has not yet ratified it. The WHO [argues](#) that ratification could give further strength to existing domestic efforts to reduce tobacco use and exposure, which according to the Centers for Disease Control and Prevention causes approximately [443,000 deaths](#) annually, and is the leading cause of preventable death in the United States. The FCTC would provide an additional opportunity for the United States to lead by example. As a nonparty, the United States cannot participate in implementing and shaping the FCTC.

No: Since its entry into force in 2005, the WHO FCTC has encountered problems related to national implementation. Of the [174 parties to the treaty](#), only a handful has enacted full indoor smoking bans. In short, the success of the convention remains unproven and tobacco use is still a [leading](#) preventable cause of death worldwide. Some critics add that FCTC goals could be accomplished by national governments on their own and that the most effective way to achieve anti-tobacco goals like those in the FCTC is through [domestic regulation](#). Finally, given the enormous size of the U.S. tobacco industry, ratification requirements for strict regulations in tobacco-growing U.S. states could also translate to job losses.

Should the United States maintain its leadership role in promoting intellectual property rights for pharmaceuticals?

Yes: Intellectual property rights give the pharmaceutical industry incentives to innovate, research, and develop new medicines. Without protection from the [United States Trade Representative \(PDF\)](#), the industry would not be able to pay for developing new drugs and conducting clinical trials. Moreover, the debate between intellectual property rights and health equity distracts from a discussion of the real obstacles to universal access to essential medicines, which include weak financing, procurement, and distribution systems in many countries. The vast majority of drugs on the essential

medicines list are already off patent and have been for years. Patent pooling for essential medicines is therefore unlikely to improve access.

No: U.S. regulations supporting intellectual property deprive access to essential medicines, particularly for new drugs needed in pandemic emergencies either through local manufacturing or parallel importing. Preferential trade policies shackle medical innovation and protect monopolies that do not favor fair competition and pricing. In essence, policies that prevent developing countries from importing generics more cheaply or manufacturing drugs locally raise concerns about health equity and justice. [Some experts](#) have argued for a more nuanced approach that balances the protections offered by patents with more robust public health considerations within the intellectual property system.

Should the United States increase commitments to the Global Fund to Fight AIDS, Tuberculosis, and Malaria?

Yes: The [Global Fund to Fight AIDS, Tuberculosis, and Malaria](#) (Global Fund) is the largest grant-making body for the aforementioned three diseases. It has a number of advantages over traditional, bilateral initiatives. First, because countries make formal applications to the fund, it empowers and indeed requires governments and local organizations to set priorities. Second, it encourages host governments and civil society partners to integrate HIV, tuberculosis, and malaria programs (which overlap in many places, particularly in sub-Saharan Africa) rather than create silo programs around a single disease or issue. Third, as a multilateral mechanism, the Global Fund enables donors to pool their resources to minimize redundancy and overlap, reduce the administrative burdens on host governments, and provide assistance to developing countries less likely to be tied to donor country policies or politics. Finally, the Global Fund revamped its grant management architecture after the 2011 corruption scandal. Major donors have recommitted to the fund in acknowledgement of its important work.

No: The current Global Fund financing mechanism is unreliable and potentially unsustainable. The corruption scandal that engulfed the organization in 2011 demonstrates the uncertain management of the organization. The Global Fund has never undergone an independent audit and evaluation of its performance. It did terminate two grants for misuse of funds, but critics charge that action was taken belatedly and only in the most grievous instances. At present, the fund solicits applications from developing countries and then donations from donor governments to fund the applicants. The Global Fund's ability to meet applicant demand depends on donor countries meeting their commitments, which makes it vulnerable to economic downturns and rich country domestic financing priorities. The unpredictability of donor funds year to year makes long-term planning—which is essential for budgeting HIV/AIDS treatment—extremely difficult for applicants and limits the potential impact of

the fund. For instance, the 2011 corruption scandal resulted in major donors suspending their support.

Recent Developments

July 2012: Controversial H5N1 studies published

After months of negotiations and deliberation between the academic and policy communities, the U.S. National Science Advisory Board for Biosecurity (NSAAB) [voted unanimously](#) to allow publication of the paper on H5N1 by Yoshihiro Kawaoka of the University of Wisconsin. The paper, published by the science journal, *Nature*, [discusses](#) a manmade strain of the H5N1 virus (otherwise known as avian flu) that could be easily transmitted among human beings. The report's findings sparked a controversy over the "dual-use dilemma," or technological advancements that could be potentially manipulated for beneficial or malicious aims. In particular, the NSAAB was concerned that the paper posed a bioterrorism threat.

Several months later, NSAAB also voted to publish a similar study from Erasmus Medical Center. Currently, the H5N1 virus is often lethal in humans, but it [does not transmit easily](#) between humans. The paper, published in *Science*, identified five mutations which would allow the bird flu virus to spread easily among humans.

May 2012: Second meeting of BRICS health ministers

Health ministers from Brazil, China, and South Africa, and representatives of Russia and India (BRICS) [met](#) on the sidelines of the World Health Assembly in Geneva, Switzerland, on May 22, 2012. Representatives reaffirmed their commitments to sharing technology and cooperating in areas of drug discovery. Together, the BRICS make up 40 percent of the global population and nearly one-third of all people living with HIV/AIDS worldwide. The five BRICS countries face similar health challenges, including a double burden of communicable and noncommunicable diseases, as well as inequitable access to health services as part of increasing healthcare costs. The inaugural [meeting](#) of the BRIC health ministers was held in 2011, where representatives focused on universal access to medicine and ultimately issued the [Beijing Declaration](#).

January 2012: Contributions toward childhood vaccinations

The Bill and Melinda Gates Foundation announced a pledge of [\\$750 million](#) to the Global Fund to Fight AIDS, Tuberculosis, and Malaria, in a show of solidarity for the organization mired in a recent corruption scandal. The new pledge more than doubles the Gates Foundation's previous commitment of \$650 million, and is designed to help fill the gap between donor commitments and payments. The

backlash from donors over the corruption charges led to the resignation of the executive director as well as the cancellation of more than \$1 billion in spending to expand the Global Fund's programs. In his [high-profile announcement](#) of the new pledge at the 2012 World Economic Forum, Gates issued a call to arms: "These are tough economic times, but that is no excuse for cutting aid to the world's poorest."

Six months earlier, the [United Nations Foundation](#) and the [Global Alliance for Vaccines and Immunization](#) (GAVI) [pledged](#) \$4.3 billion toward vaccinating 250 million children by the year 2020.

January 2012: India reaches major milestone in the fight against polio

Once considered the global epicenter of polio India [celebrated](#) the passage of one year since the last case of polio in the country on January 12, 2012. Until 1995, India witnessed between fifty thousand and one hundred and fifty thousand cases of polio per year. Following a massive human and financial mobilization effort, India conducted highly successful vaccination and education campaigns, as well as pledged more than \$2 billion to eradicate polio for worldwide efforts. According to the [World Health Organization](#), more than one hundred and seventy million children under the age of five in India [receive](#) a polio vaccine each year.

The number of countries with endemic polio is now at a historic low of three countries: Afghanistan, Nigeria, and Pakistan. Although India is unquestionably a public health success story, health experts [cautioned](#) against complacency and called on Indian officials to remain vigilant against resurgences of the disease.

October 2011: Progress toward malaria vaccine

Preliminary results from a clinical trial of fifty-thousand children in seven African countries [indicate](#) that a new vaccine against malaria, "RTS,S," cuts the incidence of malaria by 50 percent in the twelve month period following vaccination. Caused by a parasite transmitted through the bites of infected mosquitoes, an effective malaria vaccine for malaria has eluded scientists for decades. The disease disproportionately affects children in sub-Saharan Africa, where malaria accounts for an estimated 20 percent of all childhood deaths. If the RTS,S continues to yield positive results, the [World Health Organization](#) could recommend and begin employing the vaccine in 2015.

September 2011: UN High-Level Meeting on Noncommunicable Diseases

Coming off the heels of the World Health Organization ministerial meeting on noncommunicable

diseases (NCDs) in Moscow in April 2011, the United Nations held its first-ever Noncommunicable Disease Summit to address the threat posed by NCDs within developing, and low- and middle-income countries (LMICs). Cardiovascular disease, diabetes, chronic respiratory diseases, and cancer contribute to 35 million deaths annually, most of which occur within developing nations. The summit adopted a [declaration](#) that recognized the increasing prevalence of NCDs and tasked the World Health Organization to develop a global monitoring system and voluntary targets for reducing NCDs by 2012. Although the summit raised the profile of NCDs in the international community, the resulting declaration disappointed many public health experts who had hoped for concrete and time-specific goals. This conference was part of the [2008-2013 Action Plan](#) (PDF) for the [Global Strategy for the Prevention and Control of Noncommunicable Diseases](#) (PDF).

Options for Strengthening the Global Public Health Regime

Introduction

U.S. and international action is needed to ensure aggressive pursuit of health agendas, improved representation of health issues in international fora, and increased coordination between donors and recipients.

These recommendations reflect the views of [Stewart M. Patrick](#), director of the program on international institutions and global governance, and [Laurie A. Garrett](#), senior fellow for global health.

Strengthen commitment toward development goals

With the global economic crisis and as the United States and Europe confront massive sovereign debt challenges, it has become virtually certain that most health-related United Nations Millennium Development Goals (MDG) will fail to achieve their desired targets. While President Obama addressed these concerns in his speech at the 2010 MDG review summit, it is unknown as of yet whether his promise for more effective U.S. leadership and his call for greater global participation in development will be fruitful. The United States and other world actors should avoid the temptation either to give up on the MDGs or to spin the breakdown of the 2015 target as a success. Instead, they should set a realistically achievable 2020 target with definite strategy and clear financing. The lessons of the first MDG project need to be applied to future endeavors, and the United States can take a lead role.

Include global health on G20 agenda

Global economic realities have forced the rise of the Group of Twenty (G20) over the Group of Eight

(G8) as the most prominent forum for multilateral cooperation on financial and economic issues. Over time, the G20 agenda should gradually expand to address global health issues. To date, the new grouping has focused overwhelmingly (and understandably) on the response to the economic crisis, leaving health and broader development matters to the G8.

Going forward, the G8 will likely retain an important role as a forum for major donor countries, including mobilizing major pledges of health-related development assistance. At the same time, the G20 offers an important forum for engaging an emerging set of nontraditional donors—including China, India, and Brazil—in forging global agreement on standards of development cooperation. As evidenced by the recent [meeting](#) of health ministers from Brazil, Russia, India, China, and South Africa (BRICS) in Beijing in July 2011 where those nations pledged support, emerging nations are increasingly active in developing countries. The G20 would serve as an ideal forum to leverage their support and integrate their efforts into a global strategy drawing on developed and emerging nations alike. The G20 also offers an opportunity to extend multilateral cooperation well beyond the limits of foreign assistance

Expand the evidence base for health interventions

Disappointingly, only limited monitoring, evaluation, and reporting on global health programs and interventions have been undertaken to date. Little is therefore known about nonmedical interventions, models of care, and program implementation. The United States should insist on an empirical assessment of all global health programs to improve the evidence base for the efficacy of interventions and encourage its development partners to do the same. Programs should collect and report process indicators as well as data on outcomes. Partners should be encouraged to conduct implementation research and share results to better capitalize on successes and learn from mistakes. A recent Lancet article showed disappointing effectiveness in major child health campaigns in West Africa led by UNICEF, highlighting the need for regular monitoring and evaluation of health programs.

Strengthen regional approaches and cooperation on health

Although regional organizations have over the past fifteen years begun to engage in health issues, their efforts remain uneven. Some regions, such as Latin America and Europe have strong systems, while others are far too weak. This often means continued reliance on global structures and initiatives that limit rapid and effective response to health emergencies.

Global health initiatives should help build and employ regional capacity, tapping the strengths of existing regional organizations where possible to reinforce and consolidate ongoing efforts and to develop more inclusive objectives. For example, some experts advocated shifting more control of avian

influenza outbreaks away from the World Health Organization and toward the Asia-Pacific Economic Cooperation forum and the Association of Southeast Asian Nations, which have the regional clout, political trust, and financial capacity necessary to manage vaccine stockpiles and encourage viral sharing for pandemics concentrated in the Asia region.

Anticipate effects of climate change on health

Countries and international institutions need to understand the impact of climate change on global health and prepare for the anticipated consequences. As weather patterns change, major storm events multiply and temperatures increase, likely triggering an increase in instances of drowning and heat stroke. These will add pressure to the emergency response mechanisms of even the most developed countries. Food insecurity and changing patterns of infectious disease (such as malaria) will also tax health systems. In some cases, population relocation may often be the only viable preventive option. In 2008, the World Health Organization's (WHO's) World Health Day focused on the health implications of climate change, but much more research and negotiation are needed to generate the necessary knowledge, infrastructure, agreements, and institutions to prepare for the health effects of climate change.

The potentially devastating correlation between climate and health can be seen with the Somalia famine in which crop failure as part of prolonged drought has given rise to a cholera epidemic and has contributed to nearly 50 percent of the population suffering from acute malnutrition.

Strengthen the IHRs

The revised International Health Regulations (IHRs) aim to bolster global pandemic preparedness and response among 194 state parties, both in the interest of public health and to minimize interruptions to global travel and commerce. The regulations have helped facilitate international coordination, but pandemic management is still haphazard. The United States should work to further strengthen the IHRs and harmonize pandemic alert systems. Country compliance with the IHRs has been mixed, underscoring the need for additional mechanisms to persuade recalcitrant states to cooperate and ease the flow of crucial information and viral samples for potential pandemic emergencies.

Develop a new pharmaceutical R&D and patent regime outside the WTO

The World Trade Organization (WTO) is no longer at the forefront of discussions on intellectual property issues related to health. The Doha Round of trade negotiations invested little time on Trade-Related Aspects of Intellectual Property Rights (TRIPS) provisions or on intellectual property right issues more broadly. The international health community should shift its attention toward trade

agreements through TRIPS+ provisions and non-WTO forums that include intergovernmental negotiations on benefit sharing and virus sharing. These new mechanisms will help bolster research and development and use external funding to price essential medicines affordably.

Become self-sustaining in meeting U.S. domestic health worker demand

The most recent estimates indicate that approximately 25 percent of all doctors in the United States are foreign trained, and 66 percent of these are from low and middle-income countries. According to an Association of American Medical Colleges (AAMC) [report](#), the United States will reach a shortage of 91,500 doctors by 2020. The AAMC predicts Americans will need an additional 45,000 primary care physicians and 46,000 surgeons and medical specialists. These estimates are higher than previously expected and is the combined result of an aging baby boom generation and increasing health care costs.

The demand for healthcare workers will only increase now that the U.S. health reform bill has passed, putting thirty to fifty million more citizens on insurance or public rolls in the United States. The United States, arguably the best in the world at professional health training and tertiary education, should set a target for self-sufficiency in the education of health professionals. Building this capacity plays to a major U.S. strength.