

Health in Latin America and the Caribbean

Challenges and Opportunities for U.S. Engagement

A Report of the CSIS Global Health Policy Center

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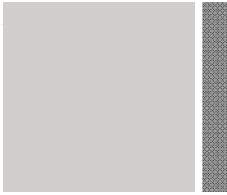

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health in Latin America and the Caribbean: challenges and opportunities for U.S. engagement

*Katherine E. Bliss*¹

Overview

The United States' geographic proximity to Latin America and the Caribbean, as well as its extensive trade, migration, and border relationships with countries in the hemisphere, makes addressing health issues in the Americas a matter of national interest. Challenges include the persistence of high maternal and infant mortality rates; diarrheal and respiratory diseases; and vaccine-preventable infections in some countries, along with the emergence of noncommunicable chronic diseases as an increasing cause of disability and death among aging populations across the region. Drug resistant infectious agents; an inadequate food and drug safety system; and the emigration of health personnel undermine the region's efforts to promote disease surveillance and prepare for emergencies. By updating its foreign assistance health priorities for Latin America and the Caribbean; expanding technical cooperation activities; and working with host countries, nongovernmental organizations (NGOs), and other partners to reach underserved communities, the United States can better promote health, security, development, and good will in the region.

- Acute socioeconomic inequality, along with gender, racial, and sexual discrimination, pose public health challenges in the region, which has the world's highest income disparities. Nearly 35 percent of the region's population lives in poverty, with 12.6 percent living in extreme poverty. At least 125 million of the region's residents do not have access to health services. The access to health care services of members of indigenous groups, Afro-descendants, women, and men who have sex with men is most restricted.
- Infectious diseases continue to cause death in the region, but noncommunicable chronic diseases are emerging as a significant cause of morbidity and mortality. HIV/AIDS rates are stabilizing, but MDR-TB is a concern in some countries. Outbreaks of dengue fever are on the rise. Diabetes, cardiovascular disease, and cancers are the top causes of death in some countries; violence undermines well-being and security in many areas.
- Effective disease surveillance remains a challenge in the region. The emigration of health professionals, the limited placement of health care centers in rural and low-income areas, and

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the restricted devotion of resources to emergency preparedness hamper the efficacy of regional health systems.

- Population growth, the extension of human settlements into remote areas, unsustainable agricultural practices, and climate change increase the chances that one or more new infectious diseases will emerge. Increased trade and large-scale production of food for export underscore the importance of improved surveillance and communication about disease outbreaks, animal health, and food safety.

U.S. Engagement on Health in the Region and Inter-American Cooperation

Trade, security, and development concerns have guided U.S. engagement on health in Latin America and the Caribbean since the beginning of the twentieth century. The United States was one of the founding members of the Pan American Sanitary Bureau, which was launched in 1902 to formalize existing intraregional cooperation on port health and quarantine issues and to facilitate policymaking regarding the transit of goods and people across borders. As construction on the Panama Canal commenced in 1903, the United States became engaged in activities designed to improve health conditions in the planned trade zone. To facilitate the work of engineers and construction workers, the Isthmian Canal Commission's medical section joined U.S. Public Health Service experts in developing laboratories and hospitals, supervising quarantine operations, and eradicating animal and insect disease vectors.²

Following World War II, the new World Health Organization (WHO) incorporated the Pan American Sanitary Bureau (now the Pan American Health Organization) as its regional arm in 1948, and the United States became a member of the WHO. As population growth began to fuel concerns over the potential for political instability in the context of Cold War tensions in the hemisphere, the United States, through the new U.S. Agency for International Development (USAID), initiated family planning programs in Latin America in the 1960s, joining many NGOs already promoting women's access to contraception in the largely Catholic region. Since then, population activities along with a focus on maternal and child health and infectious diseases have served as the foundation for USAID's health programming in the region, complementing aid for work on health in response to individual disasters, including hurricanes, floods, and earthquakes.

To bolster countries' capacities to conduct vaccination campaigns, research emerging infectious diseases, and detect and respond to outbreaks before they spread across international borders, the U.S. Centers for Disease Control and Prevention (CDC) have operated training and technical assistance programs in Latin America and the Caribbean for several decades, working with

² Alexandra Minna Stern, "The Public Health Service in the Panama Canal: A Forgotten Chapter of U.S. Public Health," *Public Health Reports* 120, no. 6 (November/December 2005): 675, http://www.publichealthreports.org/userfiles/120_6/120675.pdf.

individual country health ministries on issues ranging from smallpox eradication in the 1970s to field epidemiology training in the 1980s and 1990s to pandemic preparedness and disease detection and response in the twenty-first century. Since 1983, the U.S. Naval Medical Research Institute Detachment (NAMRID) in Peru has facilitated research collaboration on diseases of concern to military operations, and in recent years the USNS *Comfort* has made high-profile humanitarian medical missions to ports of call in Central and South America and the Caribbean. Although their resources for international work are limited, the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey (USGS), and the U.S. Department of Agriculture also undertake health-related technical cooperation in the region.

Inter-American Cooperation on Health

The principal agency for promoting inter-American cooperation on health is the Pan American Health Organization (PAHO). Established as the Pan American Sanitary Bureau in 1902, it served as a forum for intergovernmental collaboration on a broad range of health issues before being incorporated into the new WHO in 1948. Over the past 60 years, it has served as a technical agency for member countries, providing data analysis, developing health care standards, and advising regional governments on the implementation of public health policies. All countries in the hemisphere are members; associate members include France, the United Kingdom, and the Netherlands, which maintain Caribbean and South American territories.

PAHO headquarters are in Washington, D.C., and the agency maintains country offices in most member states. PAHO also supports a small technical office on the U.S.-Mexico border and seven offices that offer specialized assistance on such issues as sanitation and nutrition. It counts on the cooperation of numerous collaborating laboratories and research centers throughout the region. Because of its unique history and existence prior to the WHO, PAHO maintains a somewhat distinct financial and administrative structure from its parent agency. It is governed by the Pan American Sanitary Conference, which meets every five years, and a Directing Council of Health Ministers, which meets during the years when the Sanitary Conference does not. In October 2008, the Directing Council met for the 48th time. An executive committee of nine member countries meets twice a year to manage the organization's regular operations. All member countries are assessed a yearly quota, payable to PAHO. The organization also receives operating funds directly from member states and from the WHO, which transmits some of what it receives through quotas back to the regional offices. Through the quota process the United States contributes more than any other country in the Americas to the PAHO operating budget; in 2006–2007, the United States was assessed more than \$113 million. Some nonmember countries, including Sweden, Norway, Spain, and Germany, make voluntary contributions to support specific health initiatives in the region. During the 2006–2007 budget cycle, for example, Sweden, Norway, the Principality

of Monaco, and the European Union, made voluntary contributions to PAHO-managed hurricane relief and emergency assistance funds.³

In addition to PAHO, a variety of subregional entities work on health issues. In the Andes, the Comunidad Andina de Naciones' Organización Regional Andina de Salud (ORAS) fosters cooperation on public health. Based in Lima and constituted through the 1971 Convenio Hipólito Unánue, the ORAS unites signatory countries Bolivia, Chile, Colombia, Ecuador, and Peru in working on border health surveillance and epidemiology; pharmaceutical policies; and education and management for health.⁴

The trade organization MERCOSUR promotes collaboration on health issues in the Southern Cone. Launched in 1991 with a goal of creating a common market in Latin America, MERCOSUR initially focused on the trade in health-related products among member countries Argentina, Brazil, Paraguay, and Uruguay. In 1995, the first Reunión de Ministros de Salud del MERCOSUR was held, with Bolivia, Chile, and PAHO invited to observe. Following the Reunión, MERCOSUR created a working group on health in 1996 to focus on disease surveillance, product safety, and pharmaceutical manufacture.⁵

In the Caribbean, the Caribbean Community (CARICOM) has fostered health cooperation by convening regular meetings of member country health ministers and supporting two technical agencies, the Caribbean Environmental Health Institute (CEHI), based in St. Lucia, and the Pan Caribbean Partnership against HIV/AIDS (PANCAP). The Caribbean Epidemiology Center (CAREC), based in Port of Spain, Trinidad and Tobago, has played a critical role in providing epidemiological training and diagnostic services throughout the region. Recognizing the inability of some of the Caribbean's small island states to support comprehensive public health systems on their own, and acknowledging the interconnectedness of the basin's health concerns, the governments in the Caribbean have agreed to establish by 2010 a Caribbean Public Health Agency (CARPHA) to better coordinate disease surveillance and technical assistance among the islands and countries that border the sea.⁶

³ Pan American Health Organization (PAHO), *Financial Report of the Director and Report of the External Auditor, 1 January 2006–31 December 2007*, Official Document of the Pan American Health Organization, no. 331 (Washington, D.C.: PAHO, 2007), pp. 48, 56, <http://www.paho.org/English/GOV/CE/ce142-od331-e.htm>.

⁴ Carlos A. Agudelo, "Integración regional andina en salud," *Cad. Saúde Pública* 23, sup 2 (2007): s267–s272.

⁵ Delia Sánchez. "Procesos de integración en salud: una reflexión sobre los desafíos del MERCOSUR en salud," *Cad. Saúde Pública* 23, sup 2 (2007): s155–s163.

⁶ "CARICOM Ministers of Health Agree on a Plan to Establish CARPHA," press release, Government of St. Lucia, West Indies, September 29, 2008, http://www.stlucia.gov.lc/pr2008/september/caricom_ministers_of_health_agree_on_a_plan_to_establish_carpha.htm.

In Central America, the Sistema de Integración Centramericano (SICA) includes a Health Ministers Council (COMISCA), which involves Panama, Costa Rica, Nicaragua, El Salvador, Honduras, and Guatemala. It builds on the Reunión del Sector Salud (RESSCAD), which has brought the Central American and Dominican Republic health ministers together for regular meetings since 1956.⁷

The U.S.-Mexico Border Health Commission fosters cooperation on a wide variety of health topics between the United States and Mexico. Created in July 2000 through an agreement signed by the two health ministries, its mission “is to provide international leadership to optimize health and quality of life along the U.S.-Mexico border.”⁸ Through the Security and Prosperity Partnership (SPP), the United States, Mexico, and Canada have strengthened cooperation on food safety as well as disease surveillance, pandemic preparedness, the health of indigenous peoples, and best practices regarding the registration of medical products since 2005.⁹

Countries in the region also participate in broader international cooperative activities related to health. The United States, Canada, and Mexico participate in the Global Health Security Initiative (GHSI), which includes the United Kingdom, France, Germany, Italy, and Japan. GHSI was launched in 2002 to facilitate cooperative work in fighting bioterrorism through shared work on vaccines, disease surveillance, and the development of emergency preparedness plans.¹⁰ Through the Asia-Pacific Economic Cooperation (APEC), the United States, Canada, Mexico, Peru, and Chile participate in the Health Working Group, which promotes cooperation on health issues that may have an impact on economic performance and trade, including SARS and pandemic influenza as well as HIV/AIDS.¹¹

Other organizations within the inter-American system devote some attention to health issues. For example, the Inter-American Development Bank (IDB), through its work on water and sanitation and poverty reduction, manages health-related projects in the region. The Summit of the

⁷ “Rostros, voces y lugares” (Faces, voices, and places of the Millennium Development Goals), PAHO, Washington, D.C.,

http://devserver.paho.org/rvl/index.php?option=com_content&task=view&id=147&Itemid=177.

⁸ “About the United States–Mexico Border Health Commission,” United States–Mexico Border Health Commission, El Paso, Texas, http://www.borderhealth.org/about_us.php. The U.S. Congress passed PL 103-400 authorizing the creation of a binational commission to focus on the unique health conditions on the border in 1994 and approved funding for the commission in 1997. The USMBHC serves communities within 100 kilometers, or 62 miles, on either side of the international boundary line. Each country contributes 13 members to the commission and includes state health officers from the border states, as well.

⁹ “Security and Prosperity Partnership of North America: Prosperity Agenda,” press release, White House, Washington, D.C., March 23, 2005,

http://www.spp.gov/prosperity_agenda/index.asp?dName=prosperity_agenda.

¹⁰ “GHSI Background,” Global Health Security Initiative, <http://www.ghsi.ca/english/background.asp>.

¹¹ “Health Working Group (Health Task Force),” Asia-Pacific Economic Cooperation, Singapore, http://www.apec.org/apec/apec_groups/som_committee_on_economic/working_groups/health.html.

Americas initiatives regularly include country commitments on health. In 2002 and 2005, the health and environment ministers of the Americas met to facilitate regional work on such issues as water and sanitation, pediatric environmental health, and chemical safety.¹² RIMSA, or the Inter-American Ministerial Meeting on Health and Agriculture, convenes health and agriculture leadership to discuss such issues as foot and mouth disease and food safety; the 15th meeting was held in June 2008 in Brazil.¹³

By the last decades of the twentieth century, a wide variety of international development groups, including Norway's Agency for International Development (NORAD), Canada's International Development Agency (CIDA), Sweden's International Development Agency (SIDA), Germany's Society for Technical Cooperation (GTZ), the Spanish Agency for International Cooperation and Development, and the Japanese International Cooperation Agency (JICA), as well as multilateral lending agencies, including the World Bank, promoted assistance and technical cooperation on health in Latin America and the Caribbean, joined by NGOs, foundations, and faith-based organizations.

Leadership

Long recognized for their professional training, transatlantic connections, and political influence, health experts from Latin America and the Caribbean—particularly physicians—have exercised important leadership roles in international settings. The AIDS 2008 Conference in Mexico City, which was cochaired by Argentine and Mexican medical professionals, is only the most recent in a long list of international events and collaborations in which regional health professionals have taken the lead. AIDS 2008 served to highlight important policy and technical innovations in Latin America and the Caribbean with respect to HIV/AIDS. Adding to the contributions of biologists, practitioners, and advocates to the technical sessions, health and education ministers of Latin America and the Caribbean, and the Coalition of First Ladies and Female Leaders of Latin America on Women and AIDS, took advantage of the conference's location to focus attention on issues of special importance to the region, such as sexual education and the increasing feminization of the epidemic. In March 2009, Brazil hosted the Third Stop TB Partners Forum to “share successes, identify barriers and inspire each other to move to a new level in the global fight against TB.”¹⁴

¹² See, for example, “Declaration of Mar del Plata, June 17, 2005,” Meeting of Ministers of Health and Environment of the Americas, Mar del Plata, Argentina, June 16–17, 2005,” http://www.oas.org/hema/english/index_2htm.

¹³ See, for example, “What is RIMSA?” 15th Inter-American Meeting at the Ministerial Level, on Health and Agriculture,” http://www.panaftosa.org.br/Comp/Eventos/rimsa_15_novo/english/default_i.html.

¹⁴ “Simply, Stopping Tuberculosis: The 3rd Stop TB Partners Forum,” Rio de Janeiro, March 23–25, 2009. http://stoptb.org/events/partners_forum/2009/theforum.asp.

Leaders from the region have also been successful in advocating for reforms to Global Fund policies that will now enable some upper middle-income countries with high disease burdens among “key affected populations” to bolster HIV/AIDS services. Under the new guidelines, such countries as Argentina, Mexico, and Uruguay, for example, may now apply for funds to bolster prevention, care, and treatment for vulnerable groups in which HIV prevalence is above 5 percent.¹⁵

While health practitioners throughout the Americas have contributed significantly to advancing action and awareness regarding global health issues, those from Brazil, Mexico, and Cuba stand out for their health diplomacy and leadership to promote international cooperation.

Brazil enshrines the right of its citizenry to good health in its constitution of 1988. On the domestic front, the country has won international recognition for its commitment to ensuring the availability of antiretroviral drugs to all HIV-infected patients served by federal clinics who need access to the medications. Brazil’s aggressive price negotiations with international pharmaceutical manufacturers and its breaking of international patents to make generic drugs available to and affordable for AIDS patients across the country have inspired other, less-developed countries to identify policy measures to ensure access to needed medications for their populations.¹⁶ President Luiz Inácio Lula da Silva’s Bolsa Familia conditional cash transfer program has been credited with improving health outcomes for Brazil’s most impoverished citizens by granting families monthly stipends in exchange for ensuring children have regular health checkups.¹⁷ Internationally, Brazilian experts have played an important role in promoting interdisciplinary research on climate variability and emerging infectious diseases and in coordinating the work of international biologists, social scientists, and policy experts in authoring the chapter on health for the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment.¹⁸ Brazil’s Fundação Oswaldo Cruz has established a global health center to foster research on international health issues and facilitates technical assistance projects in several countries in Lusophone Africa. Diplomats from Brazil’s foreign service regularly complete assignments to the Ministry of Health to help ensure that health is an integrated component of the country’s foreign policy.

¹⁵ “Country Eligibility Criteria,” The Global Fund to Fight AIDS, Tuberculosis, and Malaria, Geneva, <http://www.theglobalfund.org/en/eligibility/>. See also “Upper-middle Income Country Eligibility in Round 9: An Overview of the Eligibility Determination Process,” The Global Fund to Fight AIDS, Tuberculosis, and Malaria, Geneva, September 1, 2008, http://www.theglobalfund.org/documents/rounds/9/R9_Eligibility_UMIcalculation_en.ppt.

¹⁶ Shawn Smallman, *The AIDS Pandemic in Latin America* (Chapel Hill: University of North Carolina Press, 2007), pp. 69–71.

¹⁷ Anthony Hall, “From *Fome Zero* to *Bolsa Familia*: Social Policies and Poverty Alleviation under Lula,” *Journal of Latin American Studies* 38, no. 4 (November 2006): 689–709.

¹⁸ U. Confalonieri et al., “Human Health,” in *Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, ed. M.L. Parry et al. (Cambridge: Cambridge University Press, 2007), pp. 391–431.

Mexico has served as an important innovator in working to meet the challenge of ensuring access to health services for the poorest and most marginal sectors of society. Like Brazil, Mexico recognizes the duty of the state to provide health care to the population in its federal constitution.¹⁹ With a complex array of health agencies, national hospitals and research centers, and health insurance schemes, Mexico's Secretariat of Health and social security institutions manage clinics as well as primary and tertiary care institutions. A vibrant private-sector health force supplements the government's services. While Mexico's medical establishment may have been slow to react to the country's earliest AIDS cases, reasoning that they were largely confined to a small group of men who had sex with men, the country has in recent years worked to promote greater awareness of HIV/AIDS by taking a leading role in promoting antidiscrimination legislation.²⁰ At AIDS 2008, which Mexico hosted, Mexican president Felipe Calderón announced that foreign drug companies would no longer be required to maintain a production facility in Mexico, making it easier for public programs to make medications treating a wide range of ailments more widely available through public and private insurance programs.

Perhaps inspired by its own experience with international collaborations, Mexico has taken the lead in promoting attention to neglected health conditions in partnership with its neighbors to the south. In the middle of the twentieth century, Mexico was the focus of numerous international philanthropic endeavors, with Rockefeller Foundation playing a leading role in helping craft programs for the eradication of such diseases as hookworm and yellow fever.²¹ As high fertility rates and population growth became cause for concern among international policymakers, Mexico's adoption of family planning policies at the federal level in the 1970s served as an inspiration to some governments in Central and South America concerned that using public funds to promote access to contraception might alienate largely Catholic populations.²² In the early years of this decade, Mexico launched the successful Seguro Popular program, which promotes access to health care for the country's most vulnerable populations, including those who work in the informal sector and do not count on access to health insurance programs.²³ Now Mexico is working to share its domestic experience promoting maternal and child health,

¹⁹ Claudia Agostoni, "Enfermedad y persistencia de la medicina doméstica, 1810-1910," in *México en tres momentos, 1810, 1910, 2010*, ed. Alicia Meyer (Mexico City: Universidad Nacional Autónoma de México, 2009), p. 87.

²⁰ Smallman, *The AIDS Pandemic in Latin America*, p. 118.

²¹ Anne-Emmanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester, N.Y.: University of Rochester Press, 2006).

²² Matthew Gutmann, *Fixing Men: Sex, Birth Control and AIDS in Mexico* (Berkeley: University of California Press, 2007); Gabriela Soto Laveaga, "Let's Become Fewer: Soap Operas, Contraception, and Nationalizing the Mexican Family in an Overpopulated World," *Sexuality Research and Social Policy* 4, no. 3 (September 2007): 19–33.

²³ Gustavo Nigenda, "El Seguro popular de salud en México: Desarrollo y retos para el future," *Nota técnica de Salud*, no. 2 (April 2005), Banco Interamericano de Desarrollo/Departamento de Desarrollo Sostenible-División de Programas de Desarrollo Social.

reducing malnutrition, and addressing vector-borne diseases such as dengue and malaria with its neighbors in Central America through the proposed Meso-America Health Initiative. With projected funding from the Bill and Melinda Gates Foundation, the Carso Institute, and the Spanish Agency for International Development Cooperation, Mexico anticipates contributing much of its own funding to the program, which will include the founding of a Mesoamerican Institute of Public Health and involve sharing with Central American countries the lessons it has learned regarding how to enhance maternal and child health, raise nutrition levels, promote access to water and sanitation, and improve infectious disease outcomes for residents of the most underserved communities.²⁴

Cuba has a long history of international leadership in the area of health diplomacy. Well known for the training and high quality of its medical personnel before the Cuban Revolution, the island nation since 1959 has worked to share its medical expertise with other nations. Beginning in Algeria in the 1960s, Cuba has sent doctors to war zones, disasters, and remote areas that do not count on health personnel. It is estimated that at least 30,000 Cuban health professionals are serving abroad, including at least 19,000 physicians.²⁵ Most are in Latin America. Cuba has also developed the Latin American medical school (ELAM), which by the spring of 2004 had trained nearly 14,000 students from 113 countries, with the Cuban government covering all tuition, as well as room and board.²⁶ Over the past decades, Cuba has also contributed to the establishment of medical schools in Yemen and Guinea-Bissau. At the same time, Cuba has devoted considerable human and financial resources to developing an internationally recognized biotechnology industry, undertaking research to create vaccines for diseases of concern to Latin America and the Caribbean.²⁷

Challenges

Persistent Challenges: Inequality and Infectious Diseases

Social inequality, as well as gender, racial, and sexual discrimination, poses significant challenges to improving health in Latin America and the Caribbean. The Economic Commission for Latin America and the Caribbean (ECLAC) estimates that nearly 34.1 percent of the region's residents live in poverty, with more than 12.6 percent living in extreme poverty.²⁸ While high-income residents in urban centers can expect to enjoy access to advanced prevention and treatment

²⁴ "Gestiona Ssa recursos," *Reforma*, February 25, 2009.

²⁵ Robert Hirsh and John M. Kirk, "Cuban Medical Internationalism and the Development of the Latin American School of Medicine," *Latin American Perspectives* 34, no. 6 (November 2007): 78.

²⁶ *Ibid.*, p. 83.

²⁷ Douglas Starr, "The Cuban Biotech Revolution," *Wired* (December 2004).

²⁸ Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America: Briefing Paper* (Santiago: ECLAC, December 2008), p. 5, <http://www.eclac.org/publicaciones/xml/3/34733/PSI2008-SintesisLanzamiento.pdf>.

services, residents of remote villages, members of indigenous and Afro-descendent groups, women, and citizens who experience stigma and discrimination because of their sexual orientation, engagement in sexual commerce, or use of illegal drugs, are frequently marginalized from health care services. There is considerable variation within the region. Upper middle-income countries such as Mexico, Brazil, Chile, and Argentina boast more positive health and demographic indicators than such lower-income countries as Haiti, Guatemala, or Bolivia.

In 2008, PAHO's "Basic Indicators: Health Situation in the Americas" reported that the Latin America and Caribbean region was estimated to have a population of nearly 580 million people, who on average could expect to live 73.4 years. However, life expectancy ranges from a high of 80.5 years in the tiny Caribbean nation of Anguilla to lows of 61.3 in Haiti and 65.9 in Bolivia. Population growth in Latin America and the Caribbean is relatively stable at 1.2 percent for the region, which reports an average total fertility rate of 2.3. Total fertility rates range considerably, however. Cuba, Puerto Rico, and Chile are among a handful of countries reporting rates below replacement, while highs of 4.1 in Guatemala, 3.5 in Haiti, and 3.4 in Bolivia demonstrate the potential for continued population growth in the region's most impoverished countries.²⁹

The region's general mortality rate for 2003–2005 was 6.1 deaths per 1,000 people. Communicable disease accounted for 337.9 deaths per 100,000 population in Haiti but only 37.7 in Mexico and 40.1 in Colombia. In Mexico and Colombia, as in other countries in the region, chronic, noncommunicable diseases are an increasing source of morbidity and mortality.³⁰

Highly variable infant and maternal mortality figures underscore the importance of continuing to address health conditions associated with poverty and development. Although the region reports a maternal mortality ratio of 89.2 maternal deaths per 100,000 live births, neighboring countries Cuba and Haiti report widely divergent ratios, with Cuba at 30.2 and Haiti at 630.0; Chile's maternal mortality ratio is 18.1, only slightly higher than that in the United States, 15.1. Cuba's infant mortality rate of 5.3 per 1,000 live births similarly contrasts with that in neighboring Haiti, where 57.0 infants per 1,000 live births die each year. The infant mortality rate in the United States over the same period was 6.9 per 1,000 live births.

The region's recent trend toward urbanization has implications for health outcomes. Overall, 78.4 percent of the population lives in urban areas, with high rates of urbanization in Venezuela, Argentina, and Chile, as well as in some of the English, French, and Dutch Caribbean territories. In many ways, residents of urban areas can count on better access to health care facilities. However, crowded living conditions, air pollution, and traffic congestion in the region's growing

²⁹ "Basic Indicators: Health Situation in the Americas, 2008," PAHO, Washington, D.C., January 2008.

³⁰ *Ibid.*

cities contribute to sanitation deficiencies and road accidents, while sedentary lifestyles are associated with higher rates of obesity, diabetes, and cardiovascular disease.³¹

Thanks to strong PAHO leadership, efforts to address child health have focused on improving immunization rates across Latin America and the Caribbean. Comprehensive immunization campaigns have provided the region's residents with high coverage for many vaccine-preventable diseases. Overall, vaccination rates for diphtheria, pertussis, and tetanus (DPT3), polio 3, Bacillus Calmette-Guérin (BCG), and measles/MMR were at about 95 percent in 2007. However, according to reported figures, these rates range from nearly 100 percent in many countries to a low of 64.5 percent in Haiti.³² Polio transmission in the region was halted in 1991 after a concerted six-year eradication effort.

To encourage immunization of children and adults at risk for vaccine-preventable diseases, PAHO supports yearly campaigns, and during the sixth Vaccination Week in the Americas in April 2008 the organization anticipated vaccinating around 62 million people in underserved, remote communities.³³ To ensure countries are able to access vaccines at low prices, PAHO maintains a Revolving Fund for Vaccine Procurement and a Regional Revolving Fund for Strategic Vaccine Supplies. Through these mechanisms PAHO purchases vaccines in bulk quantities at a discount and passes the savings on to countries seeking to better protect their populations from deadly infections.³⁴

Despite generally good indicators for water and sanitation coverage, compared to sub-Saharan Africa and parts of Asia, diarrheal diseases, along with acute respiratory infections, remain a significant cause of infant and child mortality in some Latin American and Caribbean countries.³⁵ In Haiti in 2006, 70 percent of the urban population, and 51 percent of the rural population had access to an "improved water source," although the source may be just a communal pipe and no guarantee of safe drinking water. About 29 percent of city residents, but only 12 percent of rural residents, in Haiti have access to sanitation services. With more than half of Haiti's population living in rural areas, it is not surprising that child mortality associated with inadequate water, sanitation, and hygiene is a persistent concern.³⁶

³¹ See, for example, Barbara Evans. "Understanding the Urban Poor's Vulnerabilities in Sanitation and Water Supply" (paper presented at Rockefeller Foundation/CSUD Global Urban Summit, Bellagio, Italy, July 1–6, 2007), http://csud.ei.columbia.edu/sitefiles/file/Final%20Papers/Week%201/Week1_%20Sanitation%20and%20Water%20Supply_Finance_Evans.pdf.

³² "Basic Indicators: Health Situation in the Americas, 2008."

³³ "Vaccination Week in the Americas Set to Immunize 62 Million in the Western Hemisphere," press release, PAHO, Washington, D.C., April 16, 2008, <http://www.paho.org/English/dd/pin/pr080416.htm>.

³⁴ "Revolving Fund: Making Vaccines Affordable," PAHO, Washington, D.C., http://www.paho.org/english/hvp/hvi/revol_fund.htm.

³⁵ "Basic Indicators: Health Situation in the Americas, 2008."

³⁶ *Ibid.*

In southern Mexico, Central America, Haiti, and some parts of the Andes, where rural communities rely on combustion of solid fuels (wood) for cooking and heating, exposure to indoor smoke causes acute respiratory infections among household members, as well as chronic obstructive pulmonary disorder among women who frequently experience a lifetime of exposure to smoke due to cooking responsibilities.³⁷

Infectious diseases for which vaccines are not available or effective, including HIV/AIDS, tuberculosis, malaria, and dengue, continue to challenge the efforts to reduce the impact of infectious disease in the region.

In Latin America and the Caribbean an estimated 1.9 million people live with HIV/AIDS. With generally low adult HIV-prevalence rates and with the spread of HIV occurring largely among men who have sex with men or commercial sex workers, the region is often viewed as less affected by HIV/AIDS than other parts of the world. In 2007, Latin America and the Caribbean saw 140,000 new HIV infections and 63,000 AIDS-related deaths.³⁸ Recent reports indicate that incidence rates in Latin America and the Caribbean are stabilizing, in large part because countries in the region have implemented important education, prevention, and antidiscrimination campaigns. For those already infected with HIV, the region's significant progress in promoting universal access to antiretroviral drugs has encouraged greater testing and numbers of people seeking access to treatment, lowering AIDS-related mortality in some places. The fact that adult prevalence in the Caribbean is surpassed only by sub-Saharan Africa, however, points to the need to both understand and address the complex nature of the epidemic among the Caribbean nations.

Extensive vector-eradication campaigns in the middle of the twentieth century eliminated malaria from much of the region, but it persists in the Amazon and in parts of southern Mexico and Central America. Between 2000 and 2004, most countries reported declines in malaria cases, with the highest annual parasite indices reported in Suriname, Guyana, and French Guiana on the northeastern coast of South America.³⁹ Brazil and Peru reported decreases in the number of cases after joining the USAID-funded Amazon Malaria Initiative in 2000.⁴⁰ Most malaria cases in Latin America are caused by the parasite *Plasmodium vivax*, which causes a less severe form of the disease than *Plasmodium falciparum*, which is responsible for the more lethal cases in Africa.⁴¹

³⁷ World Health Organization (WHO), *Fuel for Life: Household Energy and Health* (Geneva: WHO, 2006).

³⁸ "The Latin American Response against AIDS," UNAIDS Regional Office for Latin America and the Caribbean, Panama City, 2007, p. 2.

³⁹ "Malaria in the Americas: No Time to Ease Up," PAHO, Washington, D.C., November 6, 2008, http://new.paho.org/hq/index.php?option=com_content&task=view&id=393&Itemid=259.

⁴⁰ "The Amazon Malaria Initiative: Collaborating to Control Malaria in South America," fact sheet, USAID, April 4, 2008, http://linksmedia.org/shared/USAID_AMI_Eng/02.%20Fact%20Sheet.doc.

⁴¹ Ron H. Behrens, et al. "The Low and Declining Risk of Malaria in Travelers to Latin America: Is There Still an Indication for Prophylaxis?" *Malaria Journal* 6, no. 114 (August 2007).

Prevention and treatment programs in Latin America and the Caribbean focus on the provision of insecticide treated nets and indoor residual spraying in communities at risk, as well as the provision of artemisinin-based therapies. Some experts project that global warming could increase the risk of malaria in new settings or locales from which it had previously been eliminated, underscoring the importance of continued research and control efforts.

While many countries in the region have made progress in the fight against tuberculosis through immunizations and aggressive treatment regimens, the fact that Brazil and Haiti continue to report a high burden of tuberculosis, and the emergence of multidrug-resistant (MDR) tuberculosis in Peru, especially in urban colonias around Lima, point to the importance of efforts to improve surveillance, laboratory testing, and effective treatment with first-line drugs.⁴² The spread of tuberculosis along the U.S.-Mexico border underscores the need for improved treatment and surveillance in that region, as well.

Despite aggressive campaigns in the 1950s and 1960s to eradicate *Aedes Aegypti*, the mosquito vector that transmits dengue fever, the mosquito has proliferated in the region in recent decades thanks to the growth of cities and the presence in urban areas of environments that promote its reproduction. By October 2008, countries had reported nearly 2 million cases of dengue fever that year, with 16,000 cases of dengue hemorrhagic fever and over 230 deaths.⁴³ The majority of cases are in Brazil; however, cases in Central America, Mexico, and along the U.S.-Mexico border are also cause for concern. Yellow fever, which is also transmitted by the *Aedes Aegypti* vector, remains a challenge in some countries in the region. In 2008, yellow fever outbreaks in communities in Argentina, Brazil, and Paraguay ignited fears of renewed “urban” transmission of the virus, which had not been reported in the region since the 1940s and which is far more difficult to control than “jungle” or “sylvatic” yellow fever.⁴⁴

⁴² “Basic Indicators: Health Situation in the Americas, 2008.”

⁴³ “Brazil: Dengue Outbreak,” in *Disaster Relief Emergency Fund Final Report*, International Federation of the Red Cross and Red Crescent Societies, Geneva, November 27, 2008; “Fact Sheet: Dengue,” PAHO, Washington, D.C., http://new.paho.org/hq/index.php?option=com_content&task=view&id=265&Itemid=364; “Number of Reported Cases of Dengue and Dengue Hemorrhagic Fever, Region of the Americas,” PAHO, Washington, D.C., December 31, 2008, <http://www.paho.org/common/Display.asp?Lang=E&RecID=11173>. See also, Giovanini F. Coelho, et al. “Dynamics of the 2006/2007 Dengue Outbreak in Brazil,” *Mem Inst Oswaldo Cruz* 103, no. 6 (September 2008): 535–539.

⁴⁴ See “Epidemiological Alert: Increase in Circulation of Jungle Yellow Fever Virus in the Americas,” PAHO, Washington, D.C., January 27, 2009, http://new.paho.org/hq/index.php?option=com_content&task=view&id=555&Itemid=518, and “Mobilization against Yellow Fever in Paraguay Continues,” PAHO, Washington, D.C., February 26, 2008, <http://www.paho.org/English/DD/PIN/pr80226.htm>.

Emerging Challenges: Noncommunicable Diseases, Violence, and Health Systems

In 2002, PAHO reported that chronic, noncommunicable diseases had become the “greatest cause of premature death and morbidity in Latin America and the Caribbean.”⁴⁵ The organization estimates that chronic, noncommunicable diseases account for 60 percent to 70 percent of all deaths in the region. Hypertension, cancer, chronic respiratory diseases, and diabetes, among other conditions, contribute to considerable disability and lost opportunities, and can be costly to treat, as well.⁴⁶

Rising levels of obesity attributed to lack of physical activity and to an ongoing transition from reliance on home-grown and home-cooked foods to highly processed foods consumed outside the home threaten to undermine the region’s gains in public health and life expectancy over recent decades. The high costs of treating weight-related chronic conditions such as cardiovascular disease and diabetes also pose economic challenges for the health systems. For example, with half of Mexico’s population of 110 million considered to be overweight or obese, diseases associated with excess weight are becoming more common. Between 2000 and 2006, hypertension rates in this increasingly urbanized country rose 24 percent, and reported cases of type II diabetes rose 31 percent.⁴⁷ The Mexican Social Security Institute (IMSS), which provides health care to people working in or retired from the formal private sector, reports that diabetes has now become the leading cause of death for patients covered through its health insurance program. One 2004 study estimated that treating type II diabetes would cost Mexican public health agencies at least \$317 million in 2005 and projected that the cost of treating ongoing as well as new patients would only increase over time.⁴⁸ In Mexico and elsewhere throughout the region, public officials are taking steps to address the problem by promoting physical activity and nutrition education.

Cancer is the second leading cause of death in the Americas; in 2005, Latin American and Caribbean countries reported 480,000 deaths caused by cancer.⁴⁹ With population growth slowing and people living longer thanks to improvements in sanitation, hygiene, and infectious disease control, aging populations are experiencing higher rates of cancers, including cancer of the

⁴⁵ PAHO, *Regional Strategy and Plan of Action on an Integrated Approach to the Prevention and Control of Chronic Diseases* (Washington, D.C.: PAHO, 2007), p. 1, <http://www.paho.org/english/ad/dpc/nc/reg-strat-cncds.pdf>.

⁴⁶ “Chronic Disease Prevention and Control: Home Page,” PAHO, Washington, D.C., <http://www.paho.org/English/AD/DPC/NC/chronic-disease-page.htm>.

⁴⁷ María Elena Navas, “La ‘bomba’ de obesidad en México,” BBC Mundo.com, January 17, 2008, http://news.bbc.co.uk/hi/spanish/science/newsid_7193000/7193719.stm.

⁴⁸ Armando Arredondo and Alexis Zúñiga, “Economic Consequences of Epidemiological Changes in Diabetes in Middle Income Countries: The Mexican Case,” *Diabetes Care* 27, no. 1 (January 2004): 104.

⁴⁹ PAHO, *Regional Plan of Action for Cancer Prevention and Control: Report of the Cancer Stakeholders Meeting, June 11–12, 2008* (Washington, D.C.: PAHO, 2008), <http://www.paho.org/English/AD/DPC/NC/pcc-stakeholders-mtg-June08-rpt.pdf>.

stomach, cervix, and lung. PAHO projects that by the year 2030 over 1.6 million people per year will die from cancer in Latin America and the Caribbean.⁵⁰

The Latin America and Caribbean region reports the third-highest rate of cervical cancer mortality in the world, behind East Africa and Melanesia.⁵¹ Despite technical innovations in prevention, detection, and treatment that have lowered cervical cancer rates in much of the world since the 1960s, mortality associated with this preventable and treatable disease has continued to rise in some countries in the region, while rates have only stabilized in others. The situation is expected to get worse. In 2000, an estimated 92,136 women in the region were expected to be diagnosed with cervical cancer,⁵² and an estimated 33,000 women in the region die annually from the disease. Recent research projects that cervical cancer deaths in Latin America and the Caribbean will rise to 70,000 per year by 2030 as the large group of women now in their early to mid-reproductive years reaches their fifth and sixth decades, when cervical cancer is most frequently diagnosed.⁵³ Women who are poor, less educated, and members of socially marginal groups are more likely to be diagnosed with cervical cancer. Finally, low rates of diagnostic screening or low-quality screening procedures that fail to detect cellular changes mean that many cases are quite advanced by the time they are detected, with poorer prognoses.

Tobacco consumption is a leading cause of avoidable death in the region. In many countries smokers begin to use tobacco as adolescents, and at least one-third of all deaths from heart disease and cancer in the region are attributed to tobacco consumption.⁵⁴ Overall, mortality rates associated with lung cancer leveled off in many countries between 1970 and 2000; however, lung cancer mortality rates rose in Venezuela and Ecuador over the same period. In many countries, lung cancer mortality rates for females have also risen, reflecting an increase in smoking among women in the region.⁵⁵

Experts increasingly recognize violence as a significant health risk in Latin America and the Caribbean. Gender-based violence—including physical assault, sexual assault, and femicide (the murder of women because they are women)—claims lives and causes considerable disability and

⁵⁰ Ibid.

⁵¹ “Cervical Cancer in Latin America and the Caribbean: Fact Sheet 2001,” PAHO, Washington, D.C., <http://www.paho.org/English/AD/DPC/NC/ccbriefsnapshot.pdf>.

⁵² Merle J. Lewis, *A Situational Analysis of Cervical Cancer in Latin America and the Caribbean* (Washington, D.C.: PAHO, 2004), <http://www.paho.org/English/ad/dpc/nc/pcc-cc-sit-lac.pdf>.

⁵³ “Affordable Vaccines, Screening Vital to Stop Rise of Cervical Cancer in Latin America,” press release, EurekaAlert/AAAS, Washington, D.C., May 12, 2008, http://www.eurekaalert.org/pub_releases/2008-05/bc-avs050808.php.

⁵⁴ Cristina Escobar, “The CARMEN Initiative: Latin America’s Response to the Chronic Disease Burden,” *Diabetes Voice* 53 (May 2008): 30, http://www.diabetesvoice.org/files/attachments/article_594_en.pdf.

⁵⁵ Cristina Bosetti and Carlo La Vecchia, “Cancer Mortality in Latin America: Implications for Prevention,” *Revista Panamericana de Salud Pública* 18, no. 1 (2005): 2–3.

loss of work and other opportunities in the region.⁵⁶ In Guatemala, the high numbers of homicides among women led the national congress to pass an antifemicide law in April 2008.⁵⁷ In Bolivia, according to one survey, 53 percent of women ages 15 to 49 have experienced physical violence by a spouse or partner.⁵⁸

Violence associated with youth gangs and with conflicts over control of the illicit trade in drugs and arms also exacts a toll in the region. In El Salvador murder accounts for almost 50 of every 100,000 deaths, with the rate rising to 92 per 100,000 for young people.⁵⁹ In 2008, more than 5,000 people were killed as a result of violence associated with the drug cartels in Mexico.⁶⁰ Not only are violence and homicide costly to victims and their families, they are linked to broader societal problems, including depression, anxiety, and other mental health problems, further compromising vital work and educational opportunities for affected populations throughout the region. The persistence of drug trafficking in the region has negative implications for substance abuse, as well. Injecting drug use is increasingly associated with the transmission of HIV in northern Mexico and in the Southern Cone.⁶¹

Beyond the persistence of poverty-related conditions, the ongoing threat of communicable diseases, and the emerging challenge of noncommunicable chronic diseases, efforts to ensure high-performing health systems in the region are challenged because of limited budget resources for public health, the emigration of personnel, and gaps in communication among the many sectors involved in public health protection.

In many of the Latin American and Caribbean countries, funding for the health sector is limited, with few countries dedicating more than 4 percent of GDP to public health services. In addition, as governments decentralized health services across much of the region in the 1990s, responsibility for health care was devolved to states and localities, often without corresponding transfer of resources for program or personnel needs from the federal to the local level.⁶²

⁵⁶ Christine C. Pollitto, “Domestic Violence and Maternal, Infant, and Reproductive Health: A Critical Review of the Literature,” PAHO, Washington, D.C., July 2004; and Andrew R. Morrison and María Loreto Biehl, eds., *Too Close to Home: Domestic Violence in the Americas* (Washington, D.C.: Inter-American Development Bank, 1999).

⁵⁷ “Historical Moment with Rosa María Angel de Frade: Congress Passes Law against Femicide,” Rel-UITA, Montevideo, April 11, 2008, http://www.rel-uita.org/mujer/con-rosa-maria-angel-frade_eng.htm.

⁵⁸ “Basic Indicators: Gender, Health, and Development in the Americas, 2007,” PAHO, Washington, D.C., January 2007.

⁵⁹ “Latin America Tops Murder Tables,” BBC News.com, November 28, 2008, <http://news.bbc.co.uk/2/hi/americas/7750054.stm>.

⁶⁰ Mark Lacey, “Killings in Drug War in Mexico Double in ‘08,” *New York Times*, December 8, 2008.

⁶¹ “The Latin American Response against AIDS, UNAIDS Regional office for Latin America, Panama City, 2007.

⁶² Núria Homedes and Antonio Ugalde, eds., *Decentralizing Health Services in Mexico: A Case Study in State Reform* (La Jolla, Calif.: Center for U.S.-Mexican Studies, 2006).

With limited financial resources to support work on health, many trained health personnel seek work opportunities in more lucrative settings where their services are in demand, leaving struggling local health systems vulnerable and underserved. Experts estimate that there may be a shortage of at least 800,000 nurses in the United States by 2020, and trained workers from Mexico, the Eastern Caribbean, and Central America increasingly emigrate to the United States to staff hospitals and clinics.⁶³ However, migration from Latin America and the Caribbean to the United States and, to some extent, Canada and Western Europe, is not the only facet of health worker migration in the region. Thanks to MERCOSUR resolutions related to the trade in professional services through Directive CMC/DEC 13/97, health personnel are free to seek better opportunities in migrating between member countries in South America.⁶⁴

The concentration of the most highly trained health personnel in urban and more lucrative settings creates gaps in care for people in more remote areas and may render the region vulnerable to disease outbreaks. Beyond increasing the likelihood that someone in a remote village may not get appropriate treatment for a health condition, the dearth of personnel in many localities has implications for regional health security, as well. Without practitioners working in key areas, it may take longer for care providers to identify and report disease outbreaks, whether naturally occurring or deliberately caused, leading to larger numbers of affected people and greater costs in the long term. Moreover, as populations enter new areas thanks to urbanization, changing agricultural practices, ecotourism, or global warming, there is a greater likelihood that people will have new contact with animal species and insect vectors, creating conditions that may facilitate the emergence of new infectious diseases. Improving communication among sectors dealing with human health and with the health of domestic animals as well as wildlife remains essential.

The expanded regional trade in agriculture and food products makes integrating disease surveillance and quality control efforts important. For example, the recent salmonella outbreak that sickened more than 1,200 people in 48 U.S. states was linked to peppers and tomatoes grown in Mexico.⁶⁵ Bolstering quality control at the place of origin before products are widely distributed is critical.

⁶³ U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis, “Projected Supply, Demand, and Shortages of Registered Nurses: 2000–2020,” July 2002, http://www.ahcancal.org/research_data/staffing/Documents/Registered_Nurse_Supply_Demand.pdf.

⁶⁴ “La migración del personal de salud en la región de las Américas: Situación, perspectivas y sugerencias para la acción,” *Población y Desarrollo* 35, Inter-American Development Bank, Washington, D.C., 2003.

⁶⁵ “Outbreak of *Salmonella* Serotype Saintpaul Infections Associated with Multiple Raw Produce Items—United States, 2008,” *Morbidity and Mortality Weekly Report* 57, no. 34 (August 29, 2007): 929–934.

Current U.S. Government Work on Health in Latin America and the Caribbean

Official U.S. engagement on health in Latin America has traditionally been linked to trade, defense, port and border security, and development imperatives. For example, U.S. health experts' original work on the Panama Canal was dedicated to ensuring that healthy workers could complete construction and ensure the more rapid transportation of goods from one ocean to another; additional disease surveillance ventures in the first decades of the twentieth century were linked to efforts to protect troops stationed on the U.S.-Mexico border and in Cuba, Nicaragua, and Mexico during interventions there.

In 1961, the U.S. Congress passed the Foreign Assistance Act, authorizing the development of what became known as USAID. The work of the Alliance for Progress in the Americas informed USAID's early efforts on regional health.⁶⁶ As it became clear that improvements in sanitation and health were leading to population growth in the region, USAID began to promote family planning and contraceptive use in the mid-1960s. Currently, within the current U.S. Foreign Assistance Framework, most funding for work on health in Latin America and the Caribbean flows through the agency's Bureau for Latin America and Caribbean (LAC) in Washington and through country missions. Programmatic emphasis is placed on family planning, maternal and child health, HIV/AIDS, TB, and malaria, although USAID officials report that the agency is phasing out work on family planning in the region by 2013, except in Guatemala, Haiti, and Bolivia.

For FY2009, USAID requested \$246,600,000 for work on health in LAC, down from \$292,865,000 in FY2008 and from FY2007's \$289,204,000.⁶⁷ Almost all support is requested through Child Survival and Health (CSH) and Global HIV/AIDS funds. Because of the way accounts and earmarks are structured, country missions and the LAC Bureau in Washington have limited flexibility to incorporate new programs that might facilitate action on diseases such as dengue or noncommunicable diseases in recognition of changing realities in the region.

Defense concerns have long guided U.S. work in health in Latin America and the Caribbean. In 1983, the U.S. Department of Defense established a Naval Medical Research Institute Detachment (NAMRID) in Lima, Peru. The laboratory is hosted by the Peruvian navy and based at the Naval Hospital in Lima, with a field unit in Iquitos for conducting ecological and epidemiological field studies. It fosters collaborative research on infectious diseases of military interest, including malaria, dengue fever, yellow fever, viral encephalitis, leishmaniasis, Chagas' disease, shigellosis, and typhoid, among others.⁶⁸ NAMRID organizes workshops and training sessions for military

⁶⁶ "About USAID: USAID History," USAID, Washington, D.C., http://www.usaid.gov/about_usaid/usaidhist.html.

⁶⁷ "Western Hemisphere Regional Overview: Program Overview," USAID, Washington, D.C., <http://www.usaid.gov/policy/budget/cbj2009/101444.pdf>.

⁶⁸ See, for example, "Naval Medical Research Center Detachment, Lima, Peru," <http://www.nmrc.navy.mil/nmrcd.htm>.

researchers in South America, as well. Recently, the U.S. Southern Command (SOUTHCOM) has supported high-profile medical missions to the region. In 2007, USNS *Comfort* carried out the “Partnership for the Americas,” and in 2009, it staged Operation Continuing Promise, stopping in Caribbean, Central American, and South American ports to deliver dental care, diagnose conditions, perform surgeries, and provide advice on sanitation projects, depending on host country requests. Although the USNS *Comfort* trips are framed as training missions for naval medical personnel, they also have a humanitarian component, as the *Comfort* takes donated medical supplies and equipment provided by U.S.-based charities and NGOs on board for distribution at scheduled stops. The missions also offer the opportunity for fostering partnerships among naval medical personnel in the region, as the *Comfort* invites military doctors from countries in the region to join all or a segment of the trip.⁶⁹

The President’s Emergency Plan for AIDS Relief (PEPFAR) is an interagency initiative involving the U.S. State Department, Department of Health and Human Services, Department of Defense, Department of Labor, USAID, and the Peace Corps. It has two focus countries in the Americas—Guyana and Haiti. Guyana is considered to have a generalized HIV epidemic. In FY2007, the PEPFAR program approved more than \$28 million to programs in Guyana through participating agencies. Nearly 50 percent of funds were assigned to treatment activities.⁷⁰ Haiti, which has an estimated 3.8 percent HIV-prevalence rate, had nearly \$85 million approved for PEPFAR activities in FY2007. In Haiti, the bulk of funds are spent on care (37.1 percent) and prevention (45.5 percent), with a wide variety of U.S. government and NGO partners. CDC and USAID are the principal government agencies receiving funds to manage programs.⁷¹ PEPFAR also maintains smaller bilateral programs in Mexico, Guatemala, El Salvador, Belize, Panama, Costa Rica, Nicaragua, Ecuador, Peru, Bolivia, and Paraguay.⁷²

The CDC, an agency of the Department of Health and Human Services, undertakes major technical assistance and research activities in Latin America and the Caribbean. CDC does not receive much in the way of direct appropriations for overseas work but instead responds to requests from host governments to work in partnership abroad. Beyond the CDC’s considerable PEPFAR activities, its Field Epidemiology Training Programs (FETP), the Field Epidemiology and Laboratory Training Programs (FELTP) and the International Emerging Infections Program

⁶⁹ “Continuing Promise 2009,” U.S. Southern Command Partnership for the Americas, Miami, Fla., <http://www.southcom.mil/appssc/factfiles.php?id=103>.

⁷⁰ “Guyana FY2007 Country Operational Plan (COP),” PEPFAR, Washington, D.C., <http://www.pepfar.gov/about/82451.htm>.

⁷¹ “Haiti FY2007 Country Operational Plan (COP),” PEPFAR, Washington, D.C., <http://www.pepfar.gov/about/82450.htm>.

⁷² “Table 8: FY2007 Funding for other PEPFAR Countries, by Agency and Account,” PEPFAR, Washington, D.C., <http://www.pepfar.gov/about/91050.htm>.

(IEIP) have for many years delivered training in outbreak investigation and response to health professionals in countries in the region.⁷³

Over the past two decades CDC has operated FETPs in Brazil, Canada, Colombia, Mexico, and Peru, as well as a regional Central America program, which was launched with funding from USAID in response to countries' struggle to address public health issues after Hurricane Mitch.⁷⁴ In 2006, CDC established an IEIP at the Universidad de Valle de Guatemala to "strengthen capacity to identify and control emerging infections of regional and global significance" through work in surveillance, outbreak support, research, training, and networking.⁷⁵ The regional office of the CDC's Global Disease Detection program, also based in Guatemala, serves to facilitate partnerships and networks among regional health practitioners and public health experts, as well.⁷⁶

While CDC works in response to country requests for medical assistance and collaborates with host country medical personnel, it has developed especially strong partnerships in Brazil, Mexico, and Guatemala. In Brazil, following productive collaboration on the FETP, CDC personnel and Brazilian health experts have cooperated on projects in Lusophone Africa. Similarly, there has been collaboration between CDC and Brazilian experts on chronic diseases, including promotion of physical activity, action to address diabetes, and injury surveillance. Historically, CDC's work with Mexico has focused primarily on border issues and surveillance, but this relationship has deepened over time to include partnerships on noncommunicable diseases.

CDC enjoys significant interaction with PAHO through secondments and personnel exchange and voluntary contributions. For example, CDC has historically detailed personnel to the immunizations section at PAHO. Voluntary contributions from CDC, as well as from other U.S. agencies, including USAID, EPA, and the State Department, facilitate partnerships for promoting health, as well. For example, the CDC-PAHO-EPA Environmental Public Health Partnership is currently in its fifth year and facilitates cooperative work on water quality in several countries, including Jamaica and Brazil.

On avian influenza and the potential for pandemic influenza, the State Department reports that the U.S. government had spent \$33.4 million to improve preparedness efforts in the Western Hemisphere countries by December 2007. So far the region has not reported any human or animal cases of H5N1, the influenza strain of greatest concern for its potential to provoke a pandemic. However, the extensive poultry operations in the Caribbean, Brazil, Mexico, and Peru,

⁷³ "Global Disease Detection," Coordinating Office for Global Health, CDC, Atlanta, Ga., <http://www.cdc.gov/cogh/gdd.htm>.

⁷⁴ "About IEIP," International Emerging Infections Program (IEIP), CDC, Atlanta, Ga., <http://www.cdc.gov/ieip/about.html>.

⁷⁵ "Guatemala," IEIP, CDC, Atlanta, Ga., <http://www.cdc.gov/ieip/guatemala.html>.

⁷⁶ "Global Disease Detection Centers," Coordinating Office for Global Health, CDC, Atlanta, Ga., <http://www.cdc.gov/cogh/gdd/gddCenters.htm>.

among other countries, make preventing a major avian outbreak a priority from an economic perspective. Beyond training health workers in epidemiology and surveillance methods to detect human as well as animal diseases, the U.S. government has worked to conduct tabletop exercises to improve emergency preparedness, and supporting communication activities in 35 countries in the region.⁷⁷

While U.S. agencies coordinate, to some extent, with each other and with international organizations and host governments, there seems to be less coordination between U.S. agencies and other donors. The depth of cooperation, of course, may depend on the nature of coordination mechanisms at the country level. However, the fact that a variety of international development agencies are active in the health field in Latin America and the Caribbean points to opportunities for enhanced collaboration and information-sharing in the effort to improve health outcomes in the region.

Canada's CIDA has provided voluntary contributions to PAHO to support discussion on partnerships and aid effectiveness in Latin America; CIDA also supports work on health in Haiti and other countries in the region. Sweden, Norway, and Germany focus their attention on Central America, where they promote work on AIDS and human rights.

Recommendations

- U.S. foreign assistance priorities on global health do not currently align with the emerging trends in Latin America and the Caribbean. Chronic, noncommunicable diseases are proving to be deadly and costly to treat, threatening to challenge long-term economic progress in some countries. U.S. agencies should move quickly to undertake cooperative work on chronic, noncommunicable diseases, as well as dengue fever and other emerging conditions, while continuing to address traditional challenges related to infectious diseases, maternal and child health, access to family planning, and improved water and sanitation in key countries.
- Trade, migration, and border proximity make regional disease surveillance and response capacity an issue of ongoing importance. The United States should continue to support country efforts to implement the international health regulations, to develop emergency preparedness plans, and to adapt to the health challenges posed by climate change, working in cooperation with PAHO and other key regional partners.
- As the country receiving many of the health professionals who migrate from Latin America and the Caribbean, the United States should initiate a dialogue with regional governments to generate policies to ensure the rights of health professionals to seek international work

⁷⁷ "U.S. Government Support to Combat Avian and Pandemic Influenza—An Update," fact sheet, U.S. Department of State, Washington, D.C., October 25, 2008, <http://2001-2009.state.gov/r/pa/scp/2008/111243.htm>.

opportunities while also developing initiatives to retain trained health personnel and improve work conditions for them in their home countries.

- The United States should strengthen bilateral partnerships with regional health leaders, including Mexico and Brazil, which have demonstrated policy innovation on issues related to HIV/AIDS, social safety net programs, and outreach to other countries in Latin America and in Africa on infectious disease and maternal and child health programs.
- Recent outbreaks of food-borne disease linked to products from Latin America and the Caribbean reinforce the importance of food and drug safety to trade processes. Increased exchange of health and agriculture experts with key trading partners, and the placement of Food and Drug Administration (FDA) officers in countries that export goods to the United States, could be considered.
- The United States should initiate a dialogue with Cuba on health diplomacy, medical education, and disease prevention strategies, as well as collaborative scientific research projects, as a means of improving prospects for normalizing relations and enhancing opportunities for cooperation and understanding.