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**ANNUAL REPORT OF THE DIRECTOR
OF THE PAN AMERICAN SANITARY BUREAU**

Innovating for Health

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To the Member States:

In accordance with the provisions of the Constitution of the Pan American Health Organization, I have the honor to present the 2013-2014 annual report on the work of the Pan American Sanitary Bureau, Regional Office for the Americas of the World Health Organization. The report highlights developments resulting from our delivery of technical cooperation within the frameworks of the 2008-2013 and 2014-2019 Strategic Plan of the Pan American Health Organization, defined by its Governing Bodies.

Dr. Carissa F. Etienne
Director

Foreword

This Annual Report covers the first year since Member States entrusted me with the leadership of the Pan American Health Organization (PAHO) and the direction of its secretariat, the Pan American Sanitary Bureau (PASB, or Bureau). The report highlights significant achievements of the Organization over the past year, as we have sought to build on PAHO's strong history by providing innovative yet practical solutions to the public health challenges our Region faces. It is from this perspective that the report's theme is *Innovating for Health*, reflecting PAHO's work as a knowledge broker and catalytic force for positive change.

An important part of my first year has been spent listening to you, PAHO's Member States, partners, and stakeholders. This rich dialogue has helped inform and refine my vision of how to position this great Organization for the future.

Pursuant to the commitment, which I gave in my inaugural address to champion the goal of Universal Health Coverage, I have used every opportunity, including official visits to eleven Member States, to strongly advocate, at the highest levels of Government, for priority attention and political will to be directed to this very important public health topic. I have also been a forceful proponent for change and improvements in Maternal and Child Health; Chronic Diseases; the Post-2015 and Sustainable Development Goals; and Human Resources for Health.

Managerially, the past year has been both demanding and rewarding. We have restructured the Bureau to improve the delivery of services to our Member States. We developed and started to implement the new Strategic Plan 2014-2019. We have welcomed two new staff members, the Assistant Director and the Director of Administration, to our Executive Management team.

While this is the "Annual Report of the Director", in truth it is a report on the work that all of us do to improve health in Americas. The achievements documented here are the result of joint efforts with national health authorities and myriad other partners. I therefore take this opportunity to sincerely thank our Member States and all of our partners for their commitment to the Organization; and to thank our staff for their unwavering dedication and hard work. I look forward to working with all of you in the coming year, championing health for sustainable development and equity throughout our Region.

Carissa F. Etienne
Director
Pan American Sanitary Bureau

Introduction

The following pages present highlights of key strategic innovations in PASB's technical cooperation and managerial initiatives, implemented between mid-2013 through mid-2014, in order to enhance the Organization's effectiveness and advance public health in PAHO Member States. These highlights are presented for each of the six categories in the PAHO Strategic Plan 2014-2019: (1) communicable diseases; (2) noncommunicable diseases and risk factors; (3) determinants of health and promoting health throughout the life course; (4) health systems; (5) preparedness, surveillance, and response; and (6) corporate services and enabling functions. The report also discusses some of the important challenges that must be addressed by PASB and Member States in order to ensure continuing public health progress in the Region as well as the sustainability and future success of PAHO as an organization.

Additional details on the Organization's broad-ranging technical cooperation programs and their results may be found in the Final Report of the PAHO Strategic Plan 2008-2013 and End-of-Biennium Assessment of the Program and Budget 2012-2013, Official Document 348.

Chapter I. Communicable Diseases

Roll-out of HIV Treatment 2.0

1. PASB advanced its roll-out of HIV Treatment 2.0 in Latin America and the Caribbean during 2013-2014, collaborating closely with governments, donors, civil society and other partners to define the new generation of HIV treatment programs using a public health perspective.
2. This new Treatment 2.0 framework seeks to optimize the use of antiretroviral drugs, improve access to point-of-care diagnostics, adapt service delivery models, and mobilize community participation to improve the efficiency and effectiveness of HIV treatment and care. To support the framework's roll-out, PASB organized a series of Treatment 2.0 missions, which used a structured dialogue to bring together technical, programmatic, and financial perspectives in order to identify and address barriers to the expansion and sustainability of antiretroviral treatment (ART) programs.
3. During the reporting period, six countries, Argentina, Guatemala, Nicaragua, Panama, Paraguay, and Uruguay, conducted Treatment 2.0 missions, bringing the total number of missions, to date, to 12, with three more planned for 2014. Led by national AIDS programs, they have included representatives of tuberculosis (TB) prevention and control programs, procurement and planning, finance, national regulatory agencies, civil society, and the scientific community. PASB's experts on HIV, TB, medicines and technologies, and the PAHO Strategic Fund have also participated, along with multilateral partners including UNAIDS and the Global Fund to Fight AIDS, Tuberculosis and Malaria.
4. Tangible results of these missions have included updated treatment guidelines aligned with World Health Organization's (WHO) recommendations, optimized use of ART, plans for reducing the number of regimens, procurement of ART drugs and other commodities through the PAHO Strategic Fund, and improved engagement with civil society and patient organizations. This innovative approach to collaboration and engagement with a wider group of multi-sectoral stakeholders has increased PASB's leadership and visibility, such that, for example, the Organization is now recognized as a key technical cooperation partner whose Treatment 2.0 missions ensure that countries are up to date in their approach to HIV as they prepare new proposals for the Global Fund.
5. Available data indicate that by 2013 seventeen out of 25 countries had adopted the preferential first-line treatment regime recommended by WHO. Preliminary numbers indicate a steady increase in the number of persons on the preferred regime. According to estimates, 48% of eligible people living with HIV were receiving ARV treatment (based on the new WHO 2013 guidelines).

Tuberculosis control in large cities

6. Tuberculosis remains one of the most important public health problems in Latin America and the Caribbean, primarily affecting the poorest populations. National data from several countries show a concentration of TB in large cities, where accelerated urbanization has led to the creation of urban slums whose residents are highly vulnerable to the disease.

7. In response to this challenge, the Organization developed an innovative Framework for TB control in Large Cities, which seeks to involve national and local authorities in the fight against TB and incorporates inter-sectoral approaches, attention to social determinants of health, and social protection for TB patients and their families. The initiative is being piloted in three cities: Bogotá, Colombia; Guarulhos, Brazil; and Lima, Peru. Ongoing interventions include:

- the involvement of multiple health service providers in TB control activities, including public and private providers, pharmacies, traditional medicine practitioners, and the penal system;
- incorporation of other social actors in control activities, such as training for community health workers, roundtable discussions, and social support for families; and
- integrated approaches at the primary level of care with programs such as diabetes, mental health, HIV/AIDS, gender, cultural diversity, and others.

8. The implementation of the Framework has generated strong political commitment and active participation of authorities from different sectors including national and local policy makers, city mayors, civil society, and the private sector. TB now represents a priority in government planning in the municipalities of Guarulhos in the State of Sao Paulo; Agostino and San Juan de Lurigancho in Lima; and Uribe in Bogota. This commitment has translated for the first time into budgetary allocations of municipal funds for TB control, which represents an encouraging development. Over the next few months, it is anticipated that data will be available on the additional number of cases detected and cured, as well as impact on mortality and health determinants. Planning is now under way to extend the implementation of this new approach in our technical cooperation to tuberculosis prevention and control in other cities of the Region.

Integrated intervention for soil-transmitted helminthiasis

9. PASB combined its technical expertise in neglected tropical and vaccine-preventable diseases to support efforts to integrate deworming for soil-transmitted helminthiasis into immunization activities undertaken during the 2014 Vaccination Week in the Americas. Seed funding and technical guidance were provided to help countries roll out integrated campaigns, which included monitoring and

evaluation. As a result of these efforts, Honduras implemented its first national campaign to deworm and vaccinate children, reaching some 800,000 children under 5, while Nicaragua integrated a new component for rapid coverage monitoring into its ongoing national campaign for deworming and vaccination, targeting 345,000 children under 5.

10. The number of countries that integrated deworming with Vaccination Week activities has increased from three countries, Haiti, Mexico and Nicaragua, that dewormed 4.6 million pre-school age children in 2010, to six countries (Belize, Dominican Republic, Haiti, Honduras, Mexico and Nicaragua), which dewormed 6.3 million children in 2013. Additional expansion of this innovative intervention is planned.

Innovations for onchocerciasis, trachoma, and Chagas disease

11. With PASB's technical cooperation, Colombia in 2013 became the first country in the world to be verified by WHO as free of onchocerciasis. Colombia also launched a new campaign to provide surgery to correct trachomatous trichiasis (trachoma-induced ingrown eyelash) as a measure to prevent blindness and accelerate the elimination of trachoma. Additionally, during this reporting period, Ecuador had requested WHO and PAHO to commence the verification process with the aim of being certified free of onchocerciasis. In this regard, an international verification team did visit that country and has recommended to the WHO Director General that Ecuador can be certified as free of onchocerciasis.

12. In the fight against Chagas disease, PASB spearheaded subregional South-South cooperation initiatives¹ that promoted vector control measures, universal screening of donors at blood banks, and improved quality and coverage of medical care. These efforts ultimately led to 17 countries certifying the interruption of transmission by Chagas' principal vector in each country's entire territory or in specific geographical areas in 2013, meeting a previously set regional goal.

Championing progress against malaria

13. Preliminary data gathered from the 21 endemic countries in the Region indicates that 427,035 cases of malaria were reported during 2013, representing a 64% reduction over cases notified in 2000. Thirteen of those countries reported reductions of over 75%, signifying achievement of the malaria-related Millennium Development Goal for 2015.

¹ The Southern Cone Subregional Initiative for the Elimination of *Triatoma Infestans* and Interruption of the Transfusion Transmission of American Trypanosomiasis (INCOSUR/Chagas), the *Iniciativa de los Países de América Central y México para el Control de la Transmisión Vectorial, Transfusional y la Atención Médica de la Enfermedad de Chagas* [Central America and Mexico Initiative for the Control of Vector, Transfusion Transmission, and Medical Care of Chagas Disease] (IPCAM); the Andean Initiative for the Control of Vector, Transfusion Transmission and Medical Care of Chagas Disease (IPA), and the Inter-governmental Initiative for Vigilance and Prevention of Chagas Disease in Amazonia (AMCHA).

Increased cases were, however, reported in Guyana, Venezuela and Haiti. Seven countries in the Region, Argentina, Belize, Costa Rica, Ecuador, El Salvador, Mexico and Paraguay, have entered the pre-elimination phase. Additionally, in 2013 all countries in Central America and the island of Hispaniola pledged to eliminate malaria from their territories by 2020. PASB supported the development of a concept for the Elimination of Malaria in Mesoamerica and the Island of Hispaniola, under which nine countries (Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, and Panama) will benefit from seed funding to accelerate malaria elimination. PASB played a critical role coordinating various stakeholders and ensuring the technical soundness of the final proposal.

14. Brazil, French Guiana, Guyana, Suriname and Venezuela share the geologically defined Guiana Shield on the north coast of South America. In this area, which is known for its gold reserves, mining is a major source of employment with concomitant cross-border movement in areas that favor malaria transmission, but have limited access to health services. As a result of increasing malaria incidence in Guyana and Venezuela, PAHO has reinforced its technical co-operation in the shield and is working closely with the Pasteur Institute in French Guiana, which has been designated as a WHO Collaborating Centre for Malaria. With suspected reduced efficacy of the anti-malarial drug artemisinin reported in Guyana and Suriname, efficacy trials are underway and a strategy and plan for the prevention, containment and elimination of the potential emergence of resistance is being developed.

15. On Malaria Day in the Americas, 6 November 2013, the Organization honored three Malaria Champions of the Americas for innovative efforts that have contributed significantly to overcoming the challenges of malaria at the country level. The Colombia Malaria Project was honored for improving health in a heavily indigenous region and creating sustainable local capacity in malaria prevention and control through training of local health workers. The National Center for Control of Tropical Diseases of the Dominican Republic was recognized, inter alia, for its innovative use of technology in addressing individual malaria cases; for its close collaboration with stakeholders both in the health and non-health sectors (tourism, agricultural, construction); and for integrated vector management that also contributes to dengue control and lymphatic filariasis elimination. The Secretariat of Health of the State of Acre, Brazil, was honored for its leadership in reducing malaria and its innovative efforts to address other health problems, including lymphatic filariasis and Chagas disease. The Malaria Champions of the Americas contest is a PASB initiative in coordination with the PAHO Foundation, the George Washington University, and the Johns Hopkins University Bloomberg School of Public Health.

Promoting cholera elimination in Hispaniola

16. PASB has supported cholera control and elimination in Haiti and the Dominican Republic since the epidemic began in 2010. During the reporting period, this support included direct technical cooperation through PAHO/WHO's Representative Offices in

the two countries and the mobilization of resources and additional technical assistance through the Regional Coalition for Water and Sanitation to Eliminate Cholera in Hispaniola, for which PASB serves as the secretariat.

17. Efforts toward the elimination of the cholera epidemic in Haiti and the Dominican Republic are yielding positive results. Reported cases of cholera in Haiti have declined from 352,033 in 2011, to 58,809 in 2013, representing an 83% reduction. Morbidity trends suggest a continuing decline in 2014, as only 6,513 cases were notified during the first six months of the year. Due to improved detection and rapid treatment efforts, cholera fatality has been reduced from 16.7% in 2011 to less than 1% in 2013. Likewise, in the Dominican Republic the epidemic of cholera has dropped off significantly, from 20,840 reported cases in 2013 to only 178 cases during the first six months of 2014.

18. In 2014, the Organization continued to demonstrate its strong commitment to providing the best quality technical support to Haiti and the Dominican Republic. Technical cooperation was provided for a cholera vaccination campaign in six Haitian communes considered at high risk of cholera, and for a Total Sanitation Campaign launched by the Haitian government and UN Secretary-General Ban Ki Moon in several communes. It is estimated that around 200,000 persons will be vaccinated against cholera, while the sanitation campaign will reach at least 700,000 households. In April, the Organization partnered with UNICEF to convene a meeting of global cholera experts and officials from Haiti's Ministry of Public Health and Population (MSPP) and the National Water and Sanitation Directorate (DINEPA). Technical discussions concluded that cholera elimination will probably be achieved in 10 years and that increasing investments to expand the water and sanitation coverage in urban and rural areas were crucial.

Mobile technology for water quality monitoring

19. The Organization facilitated technology transfer of an innovative water-quality monitoring system known as SIS-KLOR (Residual Chlorine Surveillance System) from Haiti to the Dominican Republic. The system uses Short Message Service (SMS) to convey real-time information collected by teams responsible for obtaining and evaluating water samples. The PAHO/WHO Representative Office in the Dominican Republic worked with the country's Ministry of Public Health and Social Assistance and the National Institute of Potable Water and Sewerage to adapt the system to the country's needs for timely information on the status of water disinfection in urban and rural areas. SIS-KLOR, a low-cost mobile technology that can be used in remote and difficult-to-access regions, was one of the innovations that grew out of the response to Haiti's 2010 earthquake, through partnerships between PASB and DINEPA, the Ministry of National Education and Vocational Training, UNICEF, and nongovernmental organizations.

Risk-based surveillance for foot-and-mouth disease

20. The absence of clinical cases of foot-and-mouth disease over the past two years is a testament to the success of the Hemispheric Program for the Eradication of Foot-and-Mouth Disease (PHEFA) in the Americas. However, the occurrence of a large outbreak in Paraguay in 2011 illustrated the continued risk of virus circulation in the Region and the critical need to strengthen national programs to ensure timely detection of any virus circulation.

21. The Pan American Foot-and-Mouth Disease Center (PANAFTOSA), in Rio de Janeiro, Brazil, is addressing this challenge by developing, field testing, and promoting risk-based surveillance strategies aimed at increasing the detection threshold for foot-and-mouth disease while ensuring efficient use of resources. The innovative risk-based strategies, which also target influenza, have become important tools that support countries' decision-making in managing risks to public health that arise at the human, animal, and environmental interface. By strengthening country capacity to rapidly detect and report public health risks, these new tools are also contributing to strengthening of core capacities for implementation of the International Health Regulations (2005).

22. In an effort to ensure continued support for foot-and-mouth disease eradication efforts, including the coordination of the PHEFA Plan of Action, 2011-2020, the Organization has established a trust fund as an additional funding mechanism.

New costing tools for immunization

23. The Expanded Program on Immunization (EPI) is one of the Region's most important Pan American public health successes. From initially providing vaccines against six childhood diseases in its early years, the program has today expanded its vaccine portfolio to include as many as 14 vaccines. However, the rising costs associated with the introduction of new, more expensive vaccines and growing target populations require more careful consideration of cost efficiencies when developing annual plans of action. To meet this need, the Organization in 2013 led an effort to revise the EPI Plan of Action Template introduced in the 1970s, with the aim of ensuring consistency in reporting and developing a more robust method to define budgets through periodic costing exercises of routine delivery programs. Member States had identified this as a priority due to concerns related to programmatic sustainability, and the need to demonstrate efficient use of resources in order to enhance further successful resource mobilization. Consequently, the Organization launched a new companion tool to the EPI Plan of Action Template called COSTVAC, which supports EPI teams in the collection of data on immunization costs at all levels of programs and enables estimation of the total costs of delivering vaccination in a given year in order to develop more accurate budgets.

24. Both COSTVAC and the revised EPI Plan of Action Template have been tested and used at the country level, with positive feedback. All countries received the updated

template to facilitate planning in 2014. Honduras was one of the first countries in the world to perform a comprehensive cost analysis of routine immunization using COSTVAC, and findings from its analysis have been critical for developing sustainability plans prior to the country's graduation from GAVI financing. Brazil is currently implementing COSTVAC, and other countries, including Guyana and Peru, have requested support for the introduction of these new and updated tools.

Using ICTs for immunization

25. Ensuring the cost-effectiveness of immunization programs requires timely and quality information and systematic data analysis to inform evidence-based decision making. PASB's technical cooperation with Member States in this area includes guidance on the use of new information and communication technologies (ICTs). Member States are beginning to implement such innovations as managerial dashboards and electronic immunization registries (EIRs), which have the potential to improve monitoring of vaccine coverage. To streamline and improve the use of these registries, it will be important to ensure that EIRs are developed within the context of national e-health strategies and are interoperable with other health information systems, including birth registration, and are appropriately implemented, evaluated and financed.

Chapter II. Noncommunicable Diseases and Risk Factors

Integrated approaches to NCDs and risk factors

26. Noncommunicable diseases (NCDs) constitute the leading cause of illness and death in the Americas, accounting for three out of every four deaths, with more than a third of these among persons aged 30 to 69 years. With PASB's technical cooperation, countries in the Region are developing and implementing policies and programs that utilize integrated and comprehensive approaches to preventing and controlling NCDs and their risk factors. Following the adoption in 2013 of the WHO Global Action Plan for the Prevention and Control of Non-communicable Diseases, 2013-2020, PAHO launched its regional Plan of Action for the Prevention and Control of Noncommunicable Diseases, 2013-2019, which is adapted to the Region's needs and provides guidance for technical cooperation on NCDs in the medium term.

27. Based on the global and regional frameworks, several countries have recently reviewed their national plans for NCDs with PASB support. In 2013, Belize, Costa Rica, Ecuador and Paraguay reviewed their national plans and held discussions with NGOs and the private sector in order to set national targets. In Costa Rica, where in 2011, 50% of the population was reported as physically inactive, 36% as overweight, and 26% as obese, the Ministry of Health developed a National Strategy for the Prevention and Control of Noncommunicable Diseases and Risk Factors, 2013-2021, and a corresponding national action plan. The Bureau is also providing technical and legal advice to assist the country in defining its regulatory framework and in creating conditions favorable for the plan's implementation. This includes building commitment among different institutions and sectors, particularly education and the private sector, and involving them in initiatives to promote healthy lifestyles, improve care for NCDs, and regulate food marketing.

28. In a move to reduce the epidemic of childhood and adult obesity, countries have also expanded their efforts by introducing legislation or regulations related to healthy eating. In this regard, legislation designed to reduce children's consumption of processed foods was introduced in Brazil, Chile, Colombia, Costa Rica and Peru.

Global Standardized Hypertension Treatment Project

29. PASB and the U.S. Centers for Disease Control and Prevention (CDC), in collaboration with other stakeholders, spearheaded the Global Standardized Hypertension Treatment Project, an innovative effort to develop and implement a framework for standardized treatment of hypertension. The initiative is comprised of three main pillars: *a)* identification of a core group of essential medicines to treat hypertension, *b)* increasing the availability of such medicines, and *c)* improving hypertension care. The Bureau contributed to the design of the project and has forged alliances with stakeholders and ministries of health to promote its implementation. In addition, selected medicines were added to the list of products available for purchase through the PAHO Strategic Fund.

Lessons learned from the framework's implementation in the Americas will help facilitate its application worldwide.

Aging and chronic diseases

30. The number of adults over age 60 in the Americas is expected to double from 100 million in 2006 to 200 million by 2020. The accompanying rise in chronic noncommunicable diseases and care needs will challenge both health systems and families. To address this challenge, PAHO has been working with partners to implement the Chronic Disease Self-Management Program in its Member States. The program consists of peer-led, community-based workshops that empower older adults to manage their chronic conditions, in coordination with healthcare teams, and to remain active members of society. Evidence from the pilot countries indicates that participants in these programs improve their health status, health behavior, and self-care, and make fewer emergency room visits. Argentina, Chile, Dominican Republic and Paraguay are currently using the chronic care model nationwide to improve quality of care for chronic conditions, while national training of health professionals in the management of chronic diseases was conducted in Argentina, Brazil, Chile and Colombia. The Organization plans to progressively scale-up the implementation of the program beginning with 600 community workshops in seven countries, over a period of 18 months.

Innovations in technology for cervical cancer screening

31. Cervical cancer continues to be one of the leading women's cancers in Latin America and the Caribbean, even though it is highly preventable. PASB has been advancing the application of a new technology, human papillomavirus (HPV) DNA testing, to improve the effectiveness of screening programs.

32. In late 2013, PAHO and WHO issued new evidence-based guidelines on cervical cancer screening, which included the use of HPV DNA testing as a primary screening tool. The Bureau then organized a series of multi-stakeholder policy dialogues in Costa Rica, Ecuador, El Salvador, Guatemala, and Nicaragua to disseminate the new evidence and discuss policy changes. This led to the development and roll-out, with PASB support, of new national policies and plans supporting HPV DNA test-based screening programs. The Bureau is also leading a demonstration project on HPV DNA testing in Saint Vincent and the Grenadines and Saint Kitts and Nevis, and preparing a program guide on planning, implementation, and evaluation of programs based on the new technology, with a focus on experiences in low- and middle-income settings.

33. PASB also facilitated a series of events to exchange scientific information and share country experiences, including a regional meeting with stakeholders from 20 countries and six international organizations, and a public-private sector dialogue with HPV DNA test manufacturers on how to make the tests more affordable and accessible. As a result of that dialogue, the Bureau is working to establish criteria and standards for

including HPV tests in the PAHO Strategic Fund, in order to allow Member States to purchase these tests at affordable prices.

34. The shift to a newer technology will present challenges, including changing health provider practices from a well-established screening modality to a new and different regimen in which women are screened at older ages, less often, and with a different method. The process will also involve changed roles and functions for cytologists and cytotechnicians, whose careers and training have been built on the traditional screening approaches, utilizing the Pap smear. The incorporation of new technologies will result in new associated costs, although once established, HPV testing will be more cost-effective than traditional screening. As countries move forward with HPV testing, the Bureau will need to promote the use of evidence in decision making, assist in adapting provider practices, and identify ways to reduce costs.

Towards reducing risk factors for NCDs

35. PASB supported Member States' actions to reduce the toll of NCDs within the framework of the regional Strategy for the Prevention and Control of Noncommunicable Diseases for 2012-2025, which sets out four strategic objectives, namely, policies and partnerships; risk and protective factors; health systems response; and surveillance and research. Much of this work has focused on reducing the four leading risk factors for NCDs: tobacco, unhealthy diet, physical inactivity, and harmful use of alcohol. During this reporting period, the Organization supported projects such as those detailed below.

36. In 2013, Mexico, which has the world's highest per capita soda consumption and one of the highest rates of death from diabetes, approved a new law establishing taxes on sugar-sweetened beverages as a public health measure to reduce demand. The law mandates a tax of 1 peso per liter on sugary beverages, in both liquid and powdered form, as well as an 8% tax on energy-dense hyper-processed foods ("junk food"). The law also includes new restrictions on advertising unhealthy food products to children and new requirements for food labeling. The revenues generated by the new taxes will be used to provide safe drinking water in schools throughout Mexico.

37. This groundbreaking achievement was the result of joint efforts by representatives of the Ministries of Finance and Health, the Federal Legislative Congress, academia, civil society and international organizations. PASB supported advocacy for the legislation by organizing three special fora: an "economic forum," a "legislation forum," and a "media forum" with the participation of international experts and policymakers. In addition, the Bureau compiled scientific evidence, developed fact sheets on the use of fiscal policies to modify consumption patterns in favor of healthier choices, and facilitated dialogue between the government and civil society. Going forward, Mexico faces the challenge of ensuring that its new labeling requirements conform to new WHO guidelines on sugar consumption, which are currently in development.

38. In Panama, PASB began working with the Ministry of Health in 2012 to strengthen national and regional mechanisms to control the illicit trade in tobacco products. In mid-2013, these efforts were expanded to include collaboration in developing interventions to address the adverse health effects of tobacco use. The country is using tobacco taxes to finance a new work plan that will be implemented by the Ministry of Health with technical, procurement, and logistical assistance from PASB. In addition, Panama has used tobacco taxes to finance both national and regional activities on regulation, surveillance, and tobacco control as well as on chronic diseases associated with tobacco use and exposure to second-hand smoke.

39. Panama's activities are in compliance with key provisions of the WHO Framework Convention on Tobacco Control (WHO FCTC) and also contribute to the achievement of PAHO's Directing Council mandates regarding the implementation of the WHO FCTC in the Americas. Panama was recognized for its strong leadership in tobacco control in May 2014, when WHO Director-General Margaret Chan presented the Ministry of Health of Panama with the Director-General's Special Award for World No Tobacco Day.

40. In Peru, a government-civil society partnership led by the Ministry of Health and the Permanent National Commission on Tobacco Control (COLAT Peru) jointly collaborated for the approval of amendments to Peru's General Law for the Prevention and Control of Risks of Tobacco Use, ensuring that the law was consistent with the FCTC. The new legislation made Peru 100% smoke-free in indoor public places; increased the required size for health warnings on tobacco products; and banned the sale of packages containing fewer than ten cigarettes. The partnership received support from the Campaign for Tobacco-free Kids, the International Union against Tuberculosis and Lung Disease, and PAHO/WHO.

41. Seventeen countries have now adopted smoke-free legislation which includes all public places and all workplaces (public and private), consistent with the WHO Framework Convention on Tobacco Control. Nine countries have implemented national policies to promote healthy diet and physical activity in accordance with PAHO/WHO guidelines. These include Brazil, Canada, Chile, Colombia, Costa Rica, Ecuador, Mexico, Peru and Uruguay.

Innovations in mental health support services

42. PASB's technical cooperation to improve access to mental health treatment and enhance the quality of services involves users of mental health services and their families as active participants in the process of care. In collaboration with the Ministry of Health of Brazil, PASB organized a regional meeting with representatives of users' and families' organizations to share personal and institutional experiences on the human rights, autonomy, and empowerment of users and their families, and to promote their

involvement in decisions related to mental health care. Some 100 representatives from 18 countries² participated in this first-of-its-kind meeting in October 2013.

43. The Consensus of Brasilia, which emerged from this meeting, calls for concrete action by countries to implement international principles on mental health and human rights, to establish and strengthen associations of users and their families, and to create a regional network of these associations. Based on this experience, PASB and WHO are examining the possibility of organizing a similar meeting at the global level.

Preventing alcohol-related injuries in the Americas

44. The Organization coordinated collaborative research on the role of alcohol consumption in non-fatal injuries treated in emergency room settings. Ten countries³ used the same protocol to investigate the relative risk of an alcohol-related injury in males and females over 18 years of age. The data was analyzed through a partnership with two PAHO/WHO Collaborating Centers in Mexico and the United States of America. The results were summarized and published along with evidence-based recommendations in the book, *Prevention of Alcohol-related Injuries in the Americas: From Evidence to Policy Action*, in December 2013. The book documents the significant burden of alcohol consumption on health systems and societies as a whole, and describes ways to reduce alcohol-related injuries, including the use of cost-effective policies to decrease harmful drinking both at the level of the population and the individual.

45. PASB also developed a series of six online courses that support the development and implementation of alcohol policy that helps build health professionals' capacity to screen and manage excessive alcohol consumption, especially in primary health care settings. The free-of-charge courses cover alcohol and drug policy, alcohol and drug screening, and the use of "brief interventions". Mexico, Guatemala, and Uruguay have adopted these courses and are complementing them with face-to-face training sessions and webinars in partnership with major universities, local experts, national drug councils, and PAHO/WHO Collaborating Centers.

Suicide observatory for Central America and the Dominican Republic

46. Each year, more than 800,000 people die from suicide around the world, and 76% of these deaths occur in low and middle income countries. Suicide is the second-leading cause of death among persons, aged 15 to 29 years, and is a significant cause of death across the lifespan, impacting individuals of all ages. The prevalence, characteristics, and methods of suicidal behavior vary widely among communities and demographic groups. This makes up-to-date information on suicide essential in order to develop effective preventive interventions.

² Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Costa Rica, Dominican Republic, El Salvador, Ecuador, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Suriname, and the United States.

³ Argentina, Brazil, Canada, Dominican Republic, Guatemala, Guyana, Mexico, Nicaragua, Panama, and the United States.

47. In Central America, evidence on suicide has suffered from significant underreporting and heterogeneity in collection methods, hindering reliable assessment of the problem. To address this, PASB partnered with the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA) to develop a Suicide Observatory. Launched in December 2013, this new observatory provides a virtual platform for compiling timely information on suicidal behavior to support evidence-based planning and to allow countries to address risk factors more effectively.

48. To date, six countries⁴ have begun entering data from 2010 to the present onto the platform, using a common set of variables. PASB is providing technical support and capacity building for this process and will follow up with monitoring and evaluation. The Bureau plans to expand this first-of-its-kind network in the Region to other countries to help improve the quality of vital registration data on suicide.

Assessing functionality of persons with disabilities

49. To improve data collection on disabilities, the Ministry of Health of Chile, with PASB's technical assistance, developed a tool to assess the performance of daily living activities by people with disabilities. The tool, known as IVADEC-CIF, is based on the International Classification of Functioning, Disability, and Health (ICF) framework and can be used to assess degrees of disability as well as the effects of interventions.

50. IVADEC-CIF is intended for application in community settings and can be used for self-assessment by persons with disabilities or by significant informants. Qualitative information provided by the person is analyzed and converted into quantitative indicators, including disability and performance indices and dependency and mobility ratios, among others.

51. IVADEC-CIF contributes to improved care for people with disabilities in a variety of ways. At the clinical level, it supports the transition towards a bio-psychosocial approach by allowing a performance analysis within the community context. It also provides a way to measure the effects of assistive technologies and medications. At the level of management and information systems, it facilitates the alignment of national systems for qualification and certification of disabilities with impact assessments of policies on disabilities and rehabilitation. Additionally, the assessment can facilitate the inclusion or reformulation of questions about disabilities in population surveys. Finally, it contributes to diagnostics and situation analyses to develop local profiles on disabilities. The adaptation, use and application of this tool in other Member States will be addressed by PASB.

⁴ Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, and Honduras.

Inter-programmatic action on CKD in agricultural communities in Central America

52. Chronic kidney disease (CKD) unrelated to traditional risks such as diabetes and hypertension has emerged as a major cause of disability and premature death in agricultural communities in Central America in recent years. This CKD of unknown causes affects primarily young adult men in farming communities that are already burdened by socioeconomic disadvantages. To advance evidence-based interventions to address the epidemic, PASB has led an inter-programmatic technical cooperation effort that has marshaled resources and initiated dialogue between research teams, policymakers, and interest groups.

53. Responding to a proposal from El Salvador, the Bureau developed a concept paper outlining the impact and challenges of chronic kidney disease in Central America and calling for urgent international action. The statement, which reaffirmed the Declaration of El Salvador signed by Central American countries in April 2013, was formally adopted by the 52nd PAHO Directing Council in October 2013. A growing number of research groups, including PAHO/WHO Collaborating Centers, have begun investigations in the field. The Bureau is supporting the development of a comprehensive research agenda to advance knowledge about the natural history of the disease and its cause or causes, to be submitted for approval by the affected countries.

54. In addition to advancing knowledge about the epidemic through research, it is also essential to strengthen surveillance systems on environmental and occupational risks; review the legal frameworks on occupational diseases and hygiene; and implement sound public health policies and measures that will benefit the entire population in the affected countries. These include policies to halt unnecessary exposure to potential nephrotoxic agents and measures to ameliorate poor working and living conditions that could cause renal disease or increase damage to already vulnerable kidneys. Equally important is the challenge to provide universal access to health care, including early diagnosis and treatment and sufficient replacement therapies at the end stage of renal disease.

Chapter III. Determinants of Health and Promoting Health throughout the Life Course

Documenting “near-miss” cases to prevent maternal deaths

55. Some 10 million women around the world each year are left with sequelae or severe disabilities due to pregnancy-related complications. These cases of severe maternal morbidity are often referred to as “near misses” or “near deaths,” as they are life-threatening without timely and appropriate treatment. Although the precise numbers of these cases in the Americas are unknown, PAHO estimates that for every maternal death, 20 other women, or around 1.2 million per year, suffer a severe, nearly fatal complication.

56. PAHO’s Latin American Center for Perinatology, Women and Reproductive Health (CLAP/WR) designed a new record-keeping model based on variables defined by WHO to help health professionals anticipate and avoid severe complications in the care of pregnant women. This tool provides instructions on how to measure the magnitude and severity of complications in each case and how to generate awareness of these cases among health personnel, the scientific community, and universities as well as among pregnant women and their families. The tool has been tested in 23 health facilities in 12 Latin American and Caribbean countries,⁵ with positive results.

57. The clinical record has been incorporated into the Perinatal Information System (SIP), and variables included in the record will be refined and tested in a multi-country investigation in 2014. Additionally, mobile and web-based versions of the SIP software are currently under development and these will allow users to perform all SIP functions from a range of devices, including desktop computers, tablets, and cellular telephones.

Using ICTs to improve maternal health

58. Information and communication technologies (ICTs) offer innovative opportunities for improving health care, including the care of pregnant women to enhance maternal health outcomes. In follow-up to a side event on ICTs and women’s health organized by PASB and the United Nations Population Fund (UNFPA) at the 12th Regional Conference on Women in Latin America and the Caribbean that was convened in October 2013, the Organization is supporting a project in the Dominican Republic that uses ICTs to increase early prenatal attendance at medical appointments, with a focus on urban women living in compromised socioeconomic conditions.

59. The Bureau, with WHO financing, is collaborating with the national ministries responsible for health, women, and technology to provide handheld mobile devices; develop health promotional messaging; train health workers; establish women’s support

⁵ Argentina, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay.

groups; and monitor increased clinic attendance and maternal outcomes. The project has multiple benefits, including the reinforcement of healthcare providers' knowledge on the use of ICTs, gender equality, and human rights and the empowerment of women to become active participants in determining their own health.

60. As part of this inter-sectoral project, which has obtained support from a private technology company, non-governmental organizations will provide outreach services to mothers. The Ministry of Public Health and Social Assistance of the Dominican Republic plans to replicate the model in other health regions of the country. Active monitoring and evaluation is taking place, with a view to supporting the introduction of similar projects in other Member States.

Challenges in reducing maternal mortality

61. Data from the UN Maternal Mortality Estimation Inter-Agency Group reveal a 40% reduction in maternal mortality in the Americas between 1990 and 2013. While this is notable, reflecting more than 2,000 women's lives saved annually, it falls significantly short of the 75% reduction in maternal mortality called for in Millennium Development Goal 5 (MDG).

62. Although access to health care has been advancing steadily in the Region, the prevalence of unattended home births remains a major challenge to reducing maternal mortality. Lack of skilled attendants puts women and their babies at serious risk and contributes to a high burden of maternal deaths.

63. A recent study, *Global Causes of Maternal Death: a WHO systematic analysis*, found that more than 1 in 4 maternal deaths are caused by pre-existing medical conditions such as diabetes, HIV, malaria and obesity, whose health impacts can all be aggravated by pregnancy.

64. Despite advances in the last 20 years, more work is needed to prevent adolescent pregnancies, abortions, maternal deaths, sexually-transmitted infections and HIV, and to narrow the significant gaps in availability, quality and access to comprehensive sexuality education and services for young people, especially in low-income countries.

Challenges in reducing neonatal mortality

65. In the Americas, the estimated neonatal mortality rate decreased 56% from 18 to 8 per 1,000 live births between 1990 and 2010. However, its relative contribution to child mortality increased, and neonatal mortality currently accounts for 57% of deaths under age 1 and 44% of deaths under 5. Additionally, the causes of neonatal mortality have not changed as over 85% of neonatal deaths are due to prematurity, birth defects, asphyxia, and infectious diseases such as sepsis, meningitis and tetanus. Though effective, low-cost interventions do exist for most of these causes, perinatal care still lags behind in many instances. To help countries improve care, the Bureau has compiled, updated, and

disseminated evidence on perinatal interventions within the continuum of care (preconception, prenatal, delivery, and postnatal). To evaluate the implementation of those interventions, CLAP/WR has designed a tool that is currently being pilot tested in Colombia and Honduras, prior to an eventual scale-up. The resulting assessments will inform decision making to improve the quality of care, particularly in the most vulnerable areas and population groups.

Minamata Convention on Mercury

66. The Minamata Convention on Mercury, an international treaty that opened for signature in October 2013, seeks to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. PASB and WHO supported efforts to strengthen health protection in the convention by providing analysis and participating in the Intergovernmental Negotiating Committee and meetings of the Group of Latin American and Caribbean Countries (GRULAC).

67. The Minamata Convention assigns important roles to WHO (and, thus, PAHO) and ministries of health. It calls on WHO and PAHO to develop and implement strategies and programs to identify and protect populations at risk from mercury exposure, and to promote the phase-out of mercury in medical devices and products, such as antiseptics and skin-lightening cosmetics.

68. PASB is already promoting the replacement of mercury thermometers and sphygmomanometers in public hospitals as part of its technical cooperation to protect health workers, in conjunction with collaborative initiatives including the Health Care without Harm coalition and the Network of WHO Collaborating Centers in Occupational Health. In line with the convention, PASB and WHO are supporting development of a health strategy for national action plans to eliminate or reduce the use of mercury in small-scale gold mining. PASB will also help disseminate WHO guidelines on mercury exposure levels and promote information exchange in the Region, as called for in the convention.

69. In May 2014, the World Health Assembly approved Resolution WHA67.11 “Public Health Impacts of Exposure to Mercury and Mercury Compounds: the Role of WHO and Ministries of Public Health in the Implementation of the Minamata Convention.” This resolution will guide and facilitate WHO’s and PASB’s work with Member States, the Minamata Convention Intergovernmental Negotiating Committee, the Conference of the Parties, the United Nations Environment Program (UNEP), the United Nations Development Program (UNDP), the Global Environment Facility (GEF), and other international organizations in advancing the convention’s provisions in Member States.

Tracking exposure to carcinogens through CAREX

70. The Organization has been working with its Member States to develop and expand the regional CAREX (CARcinogen EXposure) database, which identifies who, where, and how people are exposed to carcinogens in the workplace. CAREX provides important information for the development of public health policies and recommendations on prevention of occupational cancers and tools for exposure control. Originally developed by the Finnish Institute of Occupational Health and the International Agency for Research on Cancer (IARC), CAREX was adapted for Latin America and the Caribbean by the Regional Institute for Toxicological Studies (IRET), a PAHO/WHO Collaborating Center at the National University of Costa Rica.

71. The Bureau has spearheaded several activities to assist Member States in building their own CAREX databases, including on-line courses, webinars, and promotional campaigns. In May 2014, PASB organized a regional CAREX workshop in Colombia for participants from 13 countries, in collaboration with CAREX Canada, the National Cancer Institute of Colombia, and PAHO/WHO Collaborating Centers in Brazil, Chile, Colombia, and Costa Rica.

72. To date, CAREX has been implemented in Canada, Colombia, Costa Rica, Guatemala, Nicaragua, and Panama. Ten other countries and territories⁶ of the Region are expected to implement CAREX databases by 2015. In addition to supporting these efforts, the Bureau will continue to work with Member States, other agencies of the United Nations and the Organization of American States (OAS), stakeholders, and networks to build capacity to monitor, document, and address occupational cancers and other conditions and trends that affect workers' health.

⁶ Bahamas, Bonaire, Chile, Curaçao, El Salvador, Mexico, Peru, Sint Eustatius, Trinidad and Tobago, and Venezuela

Chapter IV. Health Systems

Regional roadmap for progress towards universal health coverage

73. The countries of the Americas have a long-standing tradition of shared public health goals, reflecting a collective Pan American commitment to advancing health for all in the Region. The most recent and one of the most ambitious yet adopted by PAHO Member States is the goal of achieving universal health coverage.

74. Universal health coverage means that all people and communities have equitable access to the comprehensive,⁷ people-centered, and guaranteed quality health services they need over their life course, without financial hardship. The countries of the Americas reaffirmed their commitment to this goal at the 52nd PAHO Directing Council in 2013 and called for a regional strategy towards its achievement to be submitted for approval at the 53rd Directing Council in 2014.

75. The process of developing this strategy has been inter-sectoral and participatory, involving global and regional experts, civil society and other key stakeholders through national consultations and discussions in subregional and regional fora. This consultative process has mobilized political will and commitment from Member States and enhanced the work of the Bureau in defining policies and guidelines for national action.

76. The Strategy for Universal Access to Health and Universal Health Coverage defines the conditions that will enable countries of the Americas to orient their policies and measure progress towards *universal* access to health and universal health coverage. The strategy identifies four key lines of action, namely: *a)* expanding equitable access to comprehensive, quality, people- and community-centered health services; *b)* strengthening stewardship and governance; *c)* increasing and improving financing, with equity and efficiency, and moving towards eliminating direct payment at the point of services that becomes a barrier to access; and *d)* strengthening multisectoral coordination to address the social determinants of health.

77. The strategy is also a guide for countries in monitoring and evaluating their progress towards universal coverage, in alignment with the evolving dialogue on health goals in the post-2015 development agenda.

PRAIS Basic Regulatory Profile

78. While the value of leveraging information exchange in public health is well established, the complexity of the new information and communication technologies as well as the emerging health technologies presents new challenges for effective

⁷ Including services and interventions to promote health, prevent disease, care for illness (diagnosis, treatment, and rehabilitation), and provide the necessary short-, medium-, and long-term care.

knowledge sharing among stakeholders. The new Basic Regulatory Profile now featured on the PAHO Regional Platform on Access and Innovation for Health Technologies (PRAIS) facilitates the systematization and analysis of core regulatory data to help define technical cooperation priorities and identify knowledge gaps, while simultaneously increasing transparency among stakeholders. All PAHO Member States currently participate in PRAIS, which has 1,038 members and 268 institutions on its register.

79. The Basic Regulatory Profile for the Americas was developed using metadata from 25 countries and a set of basic indicators for a range of capacities, from regulation to assessing evidence on efficacy and safety of medicines that will facilitate benchmarking and monitoring of initiatives to strengthen these capacities. The first publication of the Basic Regulatory Profiles for countries in April 2014 in the Bulletin of the Observatory - PRAIS was intended to help leverage regional regulatory processes to ensure the availability of and access to quality-assured, safe, and efficacious health technologies. Twenty seven Member States currently participate in the Observatory, providing information on their regulatory capacities.

80. As Member States improve their regulatory capacity, the Bureau also benefits from stronger national regulatory authorities and the use of information on their marketing authorizations to expand the eligibility criteria for bids to the PAHO Strategic Fund and to increase its qualified supplier base. The systematization of regulatory capacities has also helped identify and address knowledge gaps that require collaboration across sectors, for example, regarding medicines to treat noncommunicable diseases and the use of immunosuppressors in transplantation. Additionally, PASB has brought together regulatory authorities and members of the Health Technology Assessment Network of the Americas (RedETSA) to facilitate the development of a stronger knowledge base for managing health technologies.

81. A major challenge to strengthening regulatory capacity lies in the wide variation of existing capacity in Member States and the specific requirements of different national health systems. In the Americas, some countries are recognized as leaders in health regulation, while others are working to improve their basic policies and resources to effectively protect their populations. Given the limited resources in these latter countries, it is important for the Bureau to work closely with them to identify and strengthen essential regulatory functions. To address these challenges, PASB is collaborating with partners to develop alternative regulatory models based on international best practices and mandates, and is facilitating bilateral and multilateral cooperation among countries.

Systematizing the work of research ethics committees

82. The ProEthos platform is a collaborative initiative of PASB, the Pontifical Catholic University of Chile, and PAHO's Latin American and Caribbean Center on Health Sciences Information (BIREME). It helps systematize the procedures of ethics review committees tasked with evaluating human subjects research, to improve the quality, transparency, and efficiency of their work. Piloting of this initiative commenced

in March 2013 with several research committees in four PAHO Member States. In this reporting period, the platform was further enhanced with a view to making it sustainable, free, and open-source for use by research ethics committees. The platform represents a sustainable model for technical cooperation on bioethics and will be updated and enhanced through interaction with Member States and the collaboration of a network of research institutions.

Mais Médicos: technical cooperation to expand access to health care

83. PASB has played an important facilitating role in Brazil's efforts to expand access to health care through the Mais Médicos ("More Doctors") program. The innovative program was established following a study by Brazil's Institute of Applied Economic Research (IPEA, 2011) that showed that 58% of Brazilians considered the shortage of medical doctors as the most significant problem in the country's Unified Health System (SUS). At that time, Brazil reported a physician to population ratio of 1.8 physicians per 1,000 population, representing an estimated shortage of approximately 168,424 physicians nationwide. These shortages were especially notable in Amazonia and rural areas.

84. The Mais Médicos Program seeks to remedy the problem of insufficient medical doctors and their uneven distribution through three main lines of action:

- providing physicians on an emergency basis to priority SUS regions through national and international "calls for interest" and international cooperation;
- restructuring the country's basic health units; and
- increasing the number of medical graduates and residents, with an emphasis on training in primary health care.

85. Under a series of agreements, PASB, the Ministry of Health of Brazil, and the Government of Cuba have collaborated to implement the short-term emergency provisions of the program, geared to increasing health service coverage and access to the SUS. By mid-2014, Cuban doctors accounted for more than 80% of medical doctors participating in the program.

86. The Bureau is actively supporting the monitoring and evaluation of those technical cooperation elements of the Mais Médicos program for which it is responsible. It also plans to document and publish a series of best practices and lessons learned based on the experiences gathered from the application of this modality of technical cooperation.

Building Human Resources for Health via a Virtual Education Clinic

87. As part of their efforts to advance towards universal health coverage, the countries of the Americas must overcome both shortages in numbers as well as the inequitable distribution of human resources in health. Some of these challenges are being addressed through the use of e-learning technologies and telemedicine to reduce professional isolation, to provide low-cost opportunities to maintain and further develop clinical competence, and ensure better quality of care in rural and hard-to-reach areas.

88. Through the Virtual Education Clinic, part of the PAHO Virtual Campus of Public Health, health professionals and technicians can now receive training in their workplaces through self-teaching modules that includes question-and-answer sessions with experts, clinical discussions, photo galleries, case studies, seminars and conferences, and up-to-date clinical information.

89. In 2013, the Virtual Education Clinic was launched on a pilot basis in Argentina, Colombia, and Panama and, subsequently, expanded to Bolivia and Paraguay. In Panama, more than 220 health professionals in remote areas accessed the Virtual Education Clinic using desktop, laptop, and tablet computers or smartphones. In all, more than 400 health professionals have participated in this new initiative.

90. The clinical cases and many of the questions arising from the pilot phase have been published online and had drawn more than 4,200 visitors by mid-2014. Overall, a total of 5,952 health professionals and technicians completed self-teaching and tutorial courses through the Virtual Campus of Public Health in 2013. It is anticipated that in future, we will be able to correlate improvements in human resources for health and the wider use of e-learning and e-health technologies with improvements in quality of care in our Member States.

91. Countries that currently have a node in PAHO's Virtual Campus of Public Health have a web portal with administrative and knowledge management functions and the capacity to share educational resources through the Virtual Health Library. Incorporating the new Virtual Education Clinic into these portals will allow them to use this training and consultation model to strengthen the clinical competencies of health teams, using web and mobile technologies. The Virtual Education Clinic will also help to develop a community of experts and specialists who can interact and assist professionals in rural and difficult-to-access zones. However, to ensure the full use of these and other new ICTs for public health, it is important to continue improving the technological infrastructure available in health facilities. Internet access is fundamental to ensure that health personnel in remote areas can access the Virtual Campus of Public Health and similar services to reduce gaps in access to knowledge, to enhance quality of care and help countries advance towards universal health coverage.

Chapter V. Preparedness, Surveillance, and Response

Smart healthcare facilities in the Caribbean

92. Among the adverse health effects of climate change is the disruption of health services caused by climatic extremes and weather disasters. In the hazard-prone Caribbean, the health sector is subject to both direct and indirect impacts of these events. For example, a severe storm in Saint Vincent and the Grenadines in December 2013 cost its health sector an estimated US\$ 2.1 million, severely damaging the country's only referral hospital and flooding many of its 39 district health clinics.

93. PASB worked with national stakeholders in the Caribbean to innovate by implementing the new Smart Hospital Initiative. Building on the Safe Hospitals Initiative, it promotes a shift away from the traditional disaster response model to one that proactively seeks to minimize the health impact of disasters through climate adaptation, mitigation measures, and preparedness. It also seeks to reduce the environmental footprint of the health sector, one of the largest consumers of energy.

94. Key outputs of the initiative, to date, have included:

- a toolkit to guide the implementation of climate change mitigation measures in existing healthcare facilities;
- cost-benefit analysis of “climate-smarting” a hospital through environmentally friendly and disaster-resilient measures; and
- implementation of two Smart Health Facilities demonstration sites, at Georgetown Hospital in Saint Vincent and the Grenadines and the Pogson Hospital in Saint Kitts and Nevis.

95. The initiative has already reduced the use and costs of energy by these health facilities. For example, the Georgetown Hospital in Saint Vincent and the Grenadines has reported a 60% reduction in its energy usage. The initiative is also contributing to reductions in greenhouse gas emissions and overall environmental impact as well as improved safety and accessibility, better indoor air quality, and higher satisfaction levels among hospital staff, patients, and visitors. PAHO is strongly encouraging the application of the principles and key elements of the Smart Hospital Initiative to the design of new health facilities as is being done, for example, with the new referral hospital that will be built in Dominica.

96. The Smart Hospital Initiative is also helping to improve national awareness of climate change, adaptation and mitigation, and environmental issues and has catalyzed interest and involvement beyond the health sector. Several countries have been promoting the “smarting” concept for infrastructure projects with development partners and adapting it to “smart communities,” “smart schools,” and “smart hotels.”

Challenges for disaster-safe hospitals

97. The Safe Hospitals Initiative has stimulated countries including Colombia, Mexico, and Peru to invest billions of dollars to improve the safety of new and existing health facilities. In many countries, however, ensuring that all new health facilities are safe from disasters and upgrading existing facilities remains a challenge, primarily because of financial limitations and competing priorities. To spur further progress in this area, PASB is developing an online dashboard to track planned and prospective new healthcare facilities and is seeking agreements with international financial institutions and development agencies to include safe hospital criteria in funding instruments.

Virtual Health Situation Room in Chocó, Colombia

98. Colombia is the world's third most vulnerable country to natural disasters, with most of its inhabitants living in areas at high risk for earthquakes, landslides, tsunamis, or volcanic eruptions. The country also has the largest number of internally displaced persons (IDPs), an estimated 4.9-5.5 million, many of whom live in flood and landslide prone areas that make up 65% of the national territory.

99. This hazard profile has a major impact on health status, especially that of IDPs, who face extreme constraints in access to life-saving services. The Department of Chocó is one of most disadvantaged in this respect, with rates of neonatal and child mortality that are twice as high as national levels. Moreover, health and disaster personnel have poor access to affected communities and to health emergency information for decision making.

100. To address these issues, PASB and the UN Office for Coordination of Humanitarian Affairs (OCHA) joined with Colombian authorities to strengthen the previously established Virtual Health Situation Room. The web-based initiative facilitates real-time tracking of emergencies and disasters with potential public health impact in the department of Chocó. Community leaders and the general public can connect to the virtual room as volunteers, facilitating engagement with remote communities and expanding the information and knowledge available to support effective decision making and response.

New initiatives in support of disaster response and risk reduction

101. Recognizing that both national response and international health cooperation in disasters could be significantly improved through the establishment of a regional registration mechanism with common criteria on the composition, essential skills and equipment for response teams, and clearly defined processes for their mobilization, PASB has developed and is currently pilot-testing a new platform, Health Operations in Emergencies (HOPE), to facilitate the registration of international response teams. In addition, a guide for a Caribbean Medical assistance team has also been established and

is being peer-reviewed. Standards for foreign medical response teams have also been developed in collaboration with WHO. These initiatives will be further strengthened as this line of work is included in PASB's Biennial Work Plan, 2014-2015.

Preparedness for mass gatherings

102. As host of the 2014 FIFA World Cup, Brazil faced the challenge of preparing its public health system and services for one of the world's largest mass gatherings, attracting millions of spectators, players, and officials. The country undertook a series of actions to prevent, minimize, and respond to potential public health emergencies. The Secretariat of Health Surveillance (SVS), with support from the Bureau and Florida International University, developed a Plan for Preparedness and Response to Public Health Emergencies that used the incident command system as a mechanism for activating and coordinating SVS's Health Emergency Operations Center. Authorities also developed contingency plans for public health emergencies and protocols and procedures related to floods, droughts, dengue fever, and leptospirosis.

103. To build human capacity, SVS, the Secretariat of Health Care (SAS), and the National Health Surveillance Agency (ANVISA), with support from PASB and the Environmental Protection Agency of São Paulo State (CETESB, a PAHO/WHO Collaborating Center on chemical emergencies), developed a training course on responding to chemical, biological, radiological, and nuclear events. The course was implemented in all 12 states hosting World Cup matches to strengthen health action, including epidemiological surveillance, environmental monitoring, health promotion, health care, and laboratory procedures.

104. Building on these initiatives, PASB and Brazil are developing a distance-learning platform to make available courses on emergencies and disasters in remote locations, particularly in the Amazon.

Chapter VI. Enabling and Corporate Functions

Strengthening country-focused cooperation

105. An assessment of the implementation of the WHO Country Focus Policy in the Americas was conducted over the period June-December 2013, and recommendations were made to strengthen the Organization's country focus. This assessment was the second of its kind for PASB. A previous assessment of the policy had been undertaken in 2003 when the Country Focus Support unit was established. This more recent assessment has triggered important follow-up actions.

106. In January 2014, pursuant to the recommendations in the assessment report, the Country Focus Support unit was renamed the Office of Country and Subregional Coordination (CSC), and restructured to appropriately reflect its more strategic and analytic functions and to be better aligned with the WHO reform high-level implementation plan.

107. The Organization has had a long and proud history of contributing to technical cooperation among countries (TCC), particularly through its brand of triangular cooperation. It has also successfully promoted and supported South-South cooperation. Aware that both international health cooperation and the concept of technical cooperation among developing countries have evolved over time towards a broader concept of cooperation among countries and horizontal partnerships, PAHO Member States, in October 2013, approved a new policy and resolution on Cooperation for Health Development in the Americas. PASB has commenced implementation of this policy with the establishment of a task force on cooperation among countries for health development and has also undertaken an assessment of its TCC over the period, 2008-2013. Recommendations have been made for making this modality of TC more strategic, fostering complementary health development and cooperation mechanisms, in order to continue advancement of the regional and global health agenda.

108. This broader modality will better leverage health development expertise and generate new models for future collaborative efforts, particularly to address challenges associated with the post-2015 development agenda. PASB is uniquely suited to spearhead this new technical cooperation modality given its longtime role as convener of the Region's leading stakeholders in public health.

Challenges for subregional technical cooperation

109. Subregional integration processes and entities in the Americas have had a long history, dating back to the mid-20th century. These processes and entities represent political groupings of countries through which PAHO's Member States jointly address issues, share experiences, and collaborate with one another. Given the importance of their political and decision-making power and the fact that they present a significant

opportunity to strengthen technical cooperation, PASB has, over the years, explored and implemented different mechanisms to interact and cooperate with these processes.

110. A major challenge ahead lies in streamlining the Bureau's subregional technical cooperation in order to maximize its impact and contribute to more efficient and effective integration processes, as Member States organize themselves into groupings that cut across traditional geographic subregions. PAHO's subregional technical cooperation strategy must, therefore, take advantage of opportunities to work strategically with these integration processes, while avoiding duplication of efforts and ensuring efficient use of limited resources.

Technical cooperation on health-related law

111. Health-related law is a tool of growing importance for promoting health equity and access to health goods and services, and for protecting and promoting the right to health. Specific areas of focus for PASB's work include tobacco control, wholesome food, healthy and safe environments, workers' health, and the rights of vulnerable groups.

112. During the reporting period, the PASB organized regional and subregional technical meetings on health-related legislation in Central America, South America, and the Caribbean. More than 150 participants from ministries of health, legislative and judicial bodies, human rights offices, academia, international agencies, and civil society organizations discussed the development and revision of health-related laws and regulations, and produced a series of recommendations for this area of work. In follow-up, PASB will work with partners and through South-South Cooperation to provide support for country efforts to:

- develop or review national laws and regulations on marketing and consumption of harmful and potentially harmful products, creation of healthy environments, and promotion of healthy nutrition;
- eliminate legal barriers in access to health related to gender identity, ethnicity, and the social and economic determinants of health;
- implement and reform existing legislation, as appropriate, in accordance with international instruments applicable to PAHO Member States, to protect the right to health and related human rights, and promote collaboration between health and tax authorities, legislators, and other sectors;
- provide training and orientation for health personnel as well as judges and legislators on the health and human rights aspects of legislation; and
- strengthen legislative initiatives in collaboration with international and regional organizations, universities, civil society, and the private sector, as appropriate.

113. At the request of Member States and to strengthen its technical cooperation in this area, PASB developed a Regional Strategy on Health-Related Law that will be presented for approval at the 53rd PAHO Directing Council. It proposes, among other actions, data collection and the development of new databases, training programs, manuals, and other tools to support legislative reform in Member States.

PASB Management Information System (PMIS)

114. During the reporting period, the Bureau continued to undertake development work on its new PASB Management Information System (PMIS) in an effort to ensure a more agile and efficient administrative infrastructure in the future.

115. In late 2013, PASB signed a number of contracts with various software providers in areas such as human resources and financial management; planning and budget; and change management services. The Bureau also recruited external as well as internal project managers, constituted and trained a PMIS implementation team, and developed detailed work, training, and change management plans. The implementation phase, initiated in January 2014, included a series of design sessions led by an external consultant with participation by staff from human resources, payroll, the PMIS team, and others including technical staff and country office administrators.

116. The system's first components, for human resources management and payroll, are expected to be fully functional by the end of 2014. The financial management component is expected to be operational by the end of 2015, while the planning and budgeting module will be implemented during 2014 and into 2015.

117. When fully implemented, the PMIS will ensure streamlining of processes and contribute to enhance efficiency, transparency and accountability.

Promoting ethics in PAHO

118. The value and importance of ethics in PASB's organizational culture as well as the critical role and responsibilities of staff in this matter have been emphasized by management. In support of this renewed emphasis, the Ethics Office launched two new initiatives to heighten staff awareness of ethical issues. These include a new conflict-of-interest disclosure program and the assignment of new country focal points for PAHO's Integrity and Conflict Management System (ICMS).

119. The new conflict-of-interest disclosure program is designed to ensure that the private interests of staff do not interfere with their official duties or undermine the integrity of the Organization. The Ethics Office has developed a Declaration of Interests questionnaire that will provide selected staff, who have relationships and activities outside of PAHO, the opportunity to disclose, on an annual basis, pertinent information that enables the Ethics Office to identify potential conflicts of interest.

120. For the first time in PAHO's history, new ICMS focal points were established in every PAHO country office and center. Each focal point serves as an informal and confidential source of assistance for staff facing difficult workplace challenges or ethical issues, referring staff to the appropriate ICMS resource at headquarters for guidance and action as necessary.

121. Additionally, a series of informational brochures were developed, covering the specific topics of conflict of interest, outside employment and activities, and gifts and hospitality. The brochures, which will be shortly disseminated, serve to remind staff of the Organization's policies in a clear and succinct manner in areas where staff most often face ethical dilemmas.

Challenges for future resource mobilization

122. Resources for development cooperation are becoming increasingly difficult to mobilize for the mostly middle-income countries of Latin America and the Caribbean and, as a consequence, it is imperative that PAHO expands its support base beyond its traditional partners, and develops new approaches to mobilizing resources. This will require PASB to better articulate PAHO's remarkable story to potential new partners and enhance the ability of staff across the Organization to develop more diversified relationships with nontraditional social and health investors. In this regard, a new Communications Strategy has been defined for the Organization with the aim of making PAHO more well-known and attractive to potential partners.

123. The shifting funding landscape together with the range of influential actors investing in health and development now demands innovative and different methods of engagement. The former Pan American Health and Education Foundation (PAHEF) was revitalized and is now renamed as the PAHO Foundation. Its changed name and refreshed brand identity reflect the Foundation's clear mission and stronger relationship with PAHO as the Organization's philanthropic partner. The Bureau has made it an explicit priority to mobilize resources required to close the funding gap and achieve the objectives of the PAHO Strategic Plan, 2014-2019, by restructuring and re-profiling specific departments and recruiting new staff with the relevant talents and professional skills and competencies that the Organization now needs.

Conclusion

124. The highlights presented in this report illustrate a broad range of innovative ideas, approaches and tools utilized in the delivery of our technical cooperation over the past year. The report also directs attention to some of the challenges facing the Bureau and its work with Member States in the near and medium-terms that will necessitate new approaches to the delivery of our technical cooperation. We can anticipate a changing technical cooperation environment, as Member States continue to strengthen their own public health leadership capacity, as new actors enter the field of international health cooperation, and as donors shift their priorities or as their own financial conditions change. The unfinished MDG agenda will require us to redouble our efforts to achieve MDG targets that have yet to be met at the regional, national, or subnational levels, while simultaneously ensuring that health remains a central focus of the post-2015 development agenda. Added to these are those social, economic, environmental, geopolitical, scientific, and technological transformations that are driving change in ways that will critically impact the Organization's work.

125. All of these challenges underscore the critical need for application of innovative approaches to financing and managing the PASB's operations, and to tailoring its programs to the needs of Member States, both individually and collectively. In keeping with the whole-of-society and whole-of-government approaches that are essential for confronting health challenges, PASB will also need to explore new partnerships in other sectors, with other bilateral and multilateral agencies, and with untapped potential partners within the Americas and beyond.

126. As the Organization innovates and adapts to change, it must also build upon its past achievements and the strong tradition of Pan American solidarity that has made these possible. PAHO has played a central role in the Americas in disease eradication, elimination and transmission interruption. The newly endorsed goal of achieving universal health coverage reflects the Region's continuing commitment to achieve ground-breaking public health results in the face of daunting odds.

127. Looking ahead, the leadership and staff of PASB remain firmly committed to technical excellence, to improving organizational efficiency and effectiveness, and to mobilizing the resources needed to facilitate and support its technical cooperation programs. PASB will continue to work in close collaboration with, and under the guidance of PAHO Member States to pursue joint public health goals that will protect and improve the lives of people throughout the Americas.

Acronyms and Abbreviations

ART	Antiretroviral treatment
ANVISA	National Health Surveillance Agency (Brazil)
BIREME	Latin American and Caribbean Center on Health Information Sciences
CAREX	Carcinogen Exposure
CDC	U.S. Centers for Disease Control and Prevention
CETESB	Environmental Protection Agency of São Paulo State (Brazil)
CKD	chronic kidney disease
CLAP/WR	Latin American Center for Perinatology/Women's Reproductive Health
COMISCA	Council of Ministers of Health of Central America and the Dominican Republic
CSC	Office of Country and Subregional Coordination
EIR	electronic immunization registry
EPI	Expanded Program on Immunization
FCTC	Framework Convention on Tobacco Control
GCTH	Horizontal Technical Cooperation Group on HIV/AIDS in Latin America and the Caribbean
GEF	Global Environment Facility
GRULAC	Group of Latin American and Caribbean Countries
HIV	human immunodeficiency virus
HPV	human papillomavirus
IARC	International Agency for Research on Cancer
ICD	International Classification of Diseases
ICF	International Classification of Functioning, Disability and Health
ICMS	Integrity and Conflict Management System
ICT	information and communication technology
IDP	internally displaced person
IHR	International Health Regulations
INCOSUR/Chagas	Southern Cone Subregional Initiative for the Elimination of <i>Triatoma infestans</i> and Interruption of the Transfusion Transmission of American Trypanosomiasis

IPCAM	<i>Iniciativa de los Países de América Central y México para el Control de la Transmisión Vectorial, Transfusional y la Atención Médica de la Enfermedad de Chagas</i> [Central America and Mexico Initiative for the Control of Vector, Transfusion Transmission, and Medical Care of Chagas Disease]
IPEA	Institute of Applied Economic Research (Brazil)
IRET	Regional Institute for Toxicological Studies (Costa Rica)
IVADEC-CIF	Tool for Assessing Performance in the Community - International Classification of Functioning, Disability, and Health
JIU	Joint Inspection Unit of the United Nations System
NCDs	noncommunicable diseases
OAS	Organization of American States
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PAHEF	Pan American Health and Education Foundation
PAHO	Pan American Health Organization
PANAFTOSA	Pan American Center on Foot-and-Mouth Disease
PASB	Pan American Sanitary Bureau
PHEFA	Hemispheric Program for the Eradication of Foot-and-Mouth Disease
PMIS	PASB Management Information System
PRAIS	Regional Platform on Access and Innovation for Health Technologies
RedETSA	Health Technology Assessment Network of the Americas
SAS	Secretariat of Health Care (Brazil)
SIP	Perinatal Information System
SIS-KLOR	Residual Chlorine Surveillance System
SMS	short message service
SUS	Unified Health System (Brazil)
SVS	Secretariat of Health Surveillance (Brazil)
TB	tuberculosis
UNAIDS	Joint United Nations Program on HIV/AIDS
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNFPA	United Nations Population Fund
WHO	World Health Organization

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RAD-AID International
Sabin Vaccine Institute
Sanofi Espoir Foundation
Swedish International Development Cooperation
United Nations Development Program
United Nations Environment Program
United Nations Food and Agriculture Organization
United Nations Foundation
United Nations Office for the Coordination of Humanitarian Affairs
United Nations Office for Disaster Risk Reduction
United Nations Trust Fund for Human Security
United States Food and Drug Administration
United States Agency for International Development
United States Centers for Disease Control and Prevention
World Diabetes Foundation

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