

**THE ESSENTIAL PUBLIC HEALTH FUNCTIONS AS A STRATEGY FOR
IMPROVING OVERALL HEALTH SYSTEMS PERFORMANCE: TRENDS
AND CHALLENGES SINCE THE PUBLIC HEALTH IN THE AMERICAS
INITIATIVE, 2000-2007**

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1. INTRODUCTION

The Pan American Health Organization/World Health Organization (PAHO/WHO) defines the Essential Public Health Functions (EPHF) as the indispensable set of actions, under the primary responsibility of the state, that are fundamental for achieving the goal of public health which is to improve, promote, protect, and restore the health of the population through collective action.¹

Through the Public Health in the Americas Initiative, PAHO/WHO defined the 11 Essential Public Health Functions and developed a methodology that allows countries to evaluate in a comprehensive manner their public health systems. As part of the Initiative, 41 countries and territories of the Region of the Americas applied the assessment tool in the period 2001-2002. The experience was extremely successful, both in terms of the process and outcomes.

Through the EPHF performance assessment, Health Ministries and/or Secretariats were able to identify the strengths and weaknesses in the public health system and based on the results develop interventions designed to sustain good practices and bridge gaps. The rationale behind the Initiative was always to go beyond the assessment of the EPHF and foment concrete action to improve public health practice, thus ultimately strengthening the performance of the overall health system.

As the experience in the Region of Latin America and the Caribbean (LAC) reveals, countries have spontaneously appropriated themselves of the knowledge, concepts and methods developed within the context of the EPHF, spurring a movement towards continuous monitoring of the status of EPHF not only at the national level but at the sub-national level, and the implementation of strengthening plans targeting those functions most in need of improvement. Similarly, several countries outside of the LAC Region have also taken steps to evaluate and strengthen the EPHF.

It is the purpose of this document to briefly document some of these experiences and thus demonstrate the importance of the EPHF assessment instrument as a tool for strengthening performance of health systems as a whole.

¹ Pan American Health Organization/World Health Organization (PAHO/WHO), *Public Health in the Americas: Conceptual Renewal, Performance Assessment, and Bases for Action* (Washington, DC: PAHO/WHO, 2002).

2. THE EPHF PERFORMANCE ASSESSMENT²

The EPHF describe the spectrum of competencies and actions that are required to reach the central objective of public health, improving the health of populations.

In 1999, the *Public Health in the Americas Initiative* was launched as a partnership between the Latin American Center for Health Research (CLAISS), the Centers for Disease Control and Prevention (CDC) and PAHO/WHO. The goal of the Initiative was to establish the basis for achieving a regional commitment to strengthen public health in the Americas. This included reaching a consensus on the concept of public health and its essential functions in the Americas, developing a methodology to measure EPHF performance, and offering support for the self-assessment of each country's public health status.

In 2000, the 42nd Directing Council of PAHO adopted Resolution CD 42.R14, which urged member states to participate in the regional exercise to measure performance with respect to 11 defined Essential Public Health Functions (EPHF) and use the results obtained to carry out interventions to develop their capacity and improve public health practice. During that same meeting, Resolution CD42.R5 was also adopted, prompting the monitoring and evaluation of health systems.³ At the same time, the World Health Report for 2000, *Health Systems: Improving Performance*, also emphasized the importance of assessing health systems performance as a first step to improve health outcomes.

11 Essential Public Health Functions

- EPHF 1.** Monitoring, evaluation, and analysis of health status
- EPHF 2.** Surveillance, research, and control of the risks and threats to public health
- EPHF 3.** Health promotion
- EPHF 4.** Social participation in health
- EPHF 5.** Development of policies and institutional capacity for public health planning and management
- EPHF 6.** Strengthening of public health regulation and enforcement capacity
- EPHF 7.** Evaluation and promotion of equitable access to necessary health services
- EPHF 8.** Human resources development and training in public health
- EPHF 9.** Quality assurance in personal and population-based health services
- EPHF 10.** Research in public health
- EPHF 11.** Reduction of the impact of emergencies and disasters on health

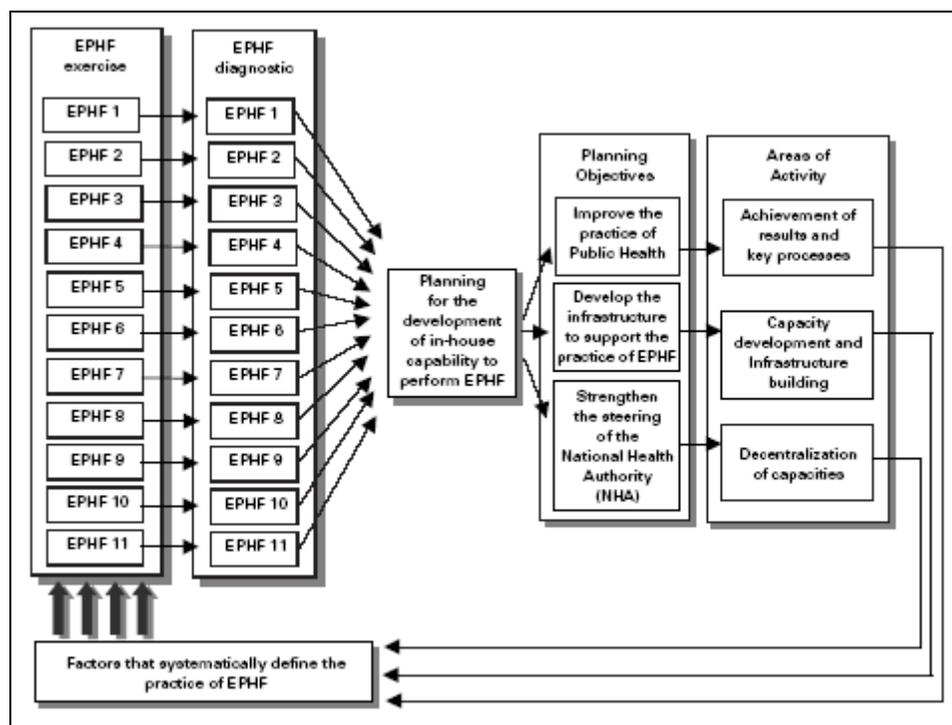
The EPHF performance measurement instrument, which was developed in English, Spanish, French and Portuguese, offered a common framework for measuring EPHF performance while respecting the organizational structure of each country's health system. Forty-one countries and territories in the Region applied the EPHF performance measurement instrument, in the period 2001-2002. Based on the results of the application, countries were encouraged to go from measurement to action through the development of interventions with the goal of: (i) strengthening public health practice; (ii) improving the steering role capacity of the national health authority to execute the EPHF;

² All of the tools, methodologies and documents mentioned in this section are available at the Web site for Health Systems Strengthening in Latin America and the Caribbean: www.lachealthsys.org.

³ Both resolutions are available at: http://www.paho.org/english/gov/cd/cd42_fr-e.pdf.

and (iii) developing public health infrastructure. The figure below shows the relationship between the EPHF measurement, the objectives to be pursued and the intervention areas.

Relationship between diagnosis of the EPHF, planning, and intervention for the development of institutional capacity



Regarding the strengthening of *public health practice*, emphasis has been placed on characterizing and developing the public health workforce in an effort to meet the needs revealed by the results of the EPHF measurements.⁴ An operational proposal to assess and develop the public health workforce in the LAC region was developed and validated in an experts meeting carried out in Costa Rica in 2005. Efforts to characterize and develop the public health workforce with a gender and ethnic perspective have also been made. PAHO/WHO has also been involved in the drafting of a joint work agenda with public health associations, schools of public health, and ministries of health for the development of the public health workforce. This effort has included, among other institutions, the World Federation of Public Health Associations (WFPHA), and the Latin American and Caribbean Association of Public Health Education (ALAESPE).⁵

As for the *strengthening of the steering role*, the *Methodological Guidelines for the Performance Assessment of the Steering Role of the National Health Authority* were developed, validated and applied in Colombia, Chile, Costa Rica, Dominican Republic, El Salvador, Ecuador, Honduras and Puerto Rico, including the identification of

⁴ Human resources development and training in public health (EPHF 8) was one of the functions with the lowest performance in the EPHF performance assessment carried out in the LAC region.

⁵ A report of the meeting titled *Strengthening the Capacity of the Public Health Workforce in Support of the Essential Public Health Functions and the Millennium Development Goals*, in addition to other documents on the same topic, is available at www.lachealthsys.org.

strengthening interventions for the six dimensions of the steering role in health: (i) Conduct/Lead; (ii) Regulation; (iii) Orientation of Financing; (iv) Guarantee of Insurance; (v) Harmonization of Service Provision; and (vi) Execution of the Essential Public Health Functions.

In regards to the development of *public health infrastructure*, PAHO/WHO has been involved in an effort to define it and identify its core components as a first step towards implementing strengthening strategies. As part of this process, the document *Public Health Capacity in Latin America and the Caribbean: Assessment and Strengthening* has been developed. In this document, the term public health capacity is used as a substitute for public health infrastructure. In addition, the five elements that comprise public health capacity are identified and described: (i) public health workforce; (ii) public health information systems; (iii) public health technologies; (iv) public health institutional and organizational capacity; and (v) public health financial resources.⁶ The document also discusses the application of several assessment tools developed by PAHO, WHO and other organization, which are proposed as inputs for assessing the status of PH capacity.⁷

Several years have elapsed from the first measurement exercise and member countries have embraced the strengthening of the EPHF as an imperative and institutional responsibility. The methodology continues to be applied as a means to strengthen the performance of the public health system in general or for improving specific dimensions such as research, human resources, or surveillance, according to the needs identified by the assessment. Several countries adapted the instrument to their local realities and decentralized scenarios, applying the tool at the sub-national level, generating results that can in turn enhance decision-making at the national level.

Countries all over the world are looking for strategies for assessing performance of health systems in an effort to be more efficient with scarce resources, better respond to the needs of the population, and achieve improved health outcomes. At a moment in which most countries are experiencing demographic and epidemiological changes that will have a direct impact on health systems capacity to respond to current and emerging public health needs, the EPHF provide an opportunity for using public health and public health performance assessment as a mechanism for strengthening health systems as a whole.

⁶ The strengthening of public health capacities comes at an important time as PAHO/WHO member countries are being urged to implement the International Health Regulations (IHR). PAHO/WHO has been providing Member States with technical cooperation to assess existing public health capacities and implement strengthening plans, particularly in the areas of surveillance and response.

⁷ A rapid evaluation of public health capacities was carried out at the sub-national level in two regions of Peru (Cajamarca y Arequipa). The report with the description of the process and the results of the assessment is currently under elaboration.

3. PERFORMANCE MEASUREMENT OF THE ESSENTIAL PUBLIC HEALTH FUNCTIONS AND STRENGTHENING STRATEGIES

3.1. Experience in the LAC Region subsequent to the Public Health in the Americas Initiative⁸

In this section, the experience of selected countries in the Region that have continued monitoring the status of their EPHF and elaborated and implemented strengthening plans will be reviewed.

Argentina

In 2004-2007, EPHF evaluations were carried out at the sub-national level in the provinces of Tucumán, Buenos Aires, La Rioja, Entre Ríos, and the municipality of La Plata. The application of the methodology helped strengthen intersectoral coordination and the steering role. It also resulted in the identification of priority areas of intervention for inclusion in Institutional Development Plans. As part of the continuous effort to strengthen the public health system in Argentina, in 2006, the World Bank approved the Project *Essential Public Health Functions and Programs* for the period 2007-2010. The objectives of the project are to increase coverage of 10 priority public health programs; reduce the public's exposure to risk factors associated with collective diseases; and improve the governance and regulatory environment of the national public health system. The main axis of the project is to improve the national and provincial steering capacity to perform the EPHF and strengthen national and provincial implementation of priority public health programs.

Brazil

Since 2003, the National Council of State Health Secretaries (CONASS), with the support from the PAHO Regional Office in Brazil, has been developing a strategy to improve state level management by evaluating and strengthening the EPHF. The EPHF provide a basic framework for the exercise of state health authority in the Unified Health System (SUS) and for the formulation and implementation of health policies according to the values and principles of the Brazilian health system.

From Nov, 2004 – Mar. 2005, five workshops were carried out to revise the EPHF and their indicators as well as to adapt the performance measurement instrument to the decentralized management structure of the SUS. The changes resulted in a redefinition of all of the essential functions, which became known as *Essential Public Health Functions for State Management of the SUS* (EPHF/SUS) and the renaming of EPHF 11 as *Coordination of the process of regionalization and decentralization in health*. To date, self-assessments have been conducted by the State Health Secretariats (SHS) of

⁸ Three sources of information were used to complete this section: 1. Surveys conducted with the PAHO/WHO Health Systems and Services Advisors on the status of the initiatives to measure and strengthen EPHF in the countries of the Region. 2. Country presentations given during the Workshop "Findings and Perspectives on the Essential Public Health Functions in the Americas" carried out in Lima, Peru, available at: http://www.lachealthsys.org/index.php?option=com_content&task=view&id=214&Itemid=166. 3. Country reports describing the EPHF measurements and strengthening strategies, available at: <http://www.lachealthsys.org>.

Ceará, Goiás, Rondônia, Mato Grosso, Sergipe, Tocantins, Pernambuco, Maranhão, Santa Catarina and Mato Grosso do Sul. Additional states have also taken steps to begin their EPHF evaluations.

In an effort to move beyond the evaluation to the development of concrete strengthening strategies, a PAHO/WHO-CONASS technical team developed a methodology for the elaboration of an *Agenda for Strengthening Essential Functions at State-Level Management*. The criteria for choosing the EPHF to be included in the agendas was the magnitude of the problem in the context of the SUS, the feasibility of implementing interventions that would have an immediate effect on EPHF performance, the institutional capacity of the SHS to carry out the strengthening interventions, the estimated cost of the interventions, and the timeframe necessary for achieving results. Strengthening workshops were carried out in four states (Goiás, Mato Grosso, Rondônia and Sergipe) and strengthening agendas were developed and are currently under implementation.

The process of EPHF evaluation and strengthening revealed that there still is insufficient knowledge by the actors at the state level in regards to the set of responsibilities and attributions needed to improve the public health system. However, several accomplishments can be identified. First, the process allowed a consensus to be reached within state health teams in regards to the main concepts, responsibilities and operationalization of the EPHF/SUS. In addition, the self-assessment results can provide important input for the revision of state budgets and State Health Plans through the identification of problematic issues and the reorientation of priority areas for technical cooperation between the state and the municipalities and between the state and the Ministry of Health.

In summary, the EPHF evaluation and strengthening initiative has widely supported the State Health Secretariats in their efforts to strengthen health systems in their respective states, allowing the development and technical improvement of state health teams and the implementation of new participatory management practices. Finally, the identification of the weakest EPHF has helped in the elaboration of a situation analysis and the preparation of a plan that will ultimately strengthen the SUS as whole.

Colombia

In Colombia, the EPHF national performance assessment took place in September 2001. In order to give continuity to the measurement process at the sub-national level, the Health District Secretariat of Bogota carried out a revision and adaptation of the measurement instrument for application at the district level. Bogota carried out its first EPHF performance assessment in October 2002. The goal of the first evaluation was to generate information to improve the institutional action plans during the year 2003 and to strengthen the elaboration of the Development Plan of the new government administration at that time.

The second measurement, carried out in September 2007, assessed the current status of EPHF performance to generate recommendations for the next administration in regards to the orientation of public health practice. The revised and adapted tool was also used as a guide for evaluations conducted in Valle, Antioquia and Caldas in 2003. The sub-national evaluations are to be carried out in the beginning of government mandates so that based on the results and lessons learned, the Health Department of

each district, in the four subsequent years of the mandate, can develop interventions, assign responsibilities and determine the need for coordination among the different actors.

Costa Rica

Between 2004 and 2005, Costa Rica carried out a second national evaluation and sub-national evaluations in 9 Health Regions of the Ministry of Health. The measurement provided a baseline to identify strengths and weakness in the public health system. In addition, the results served as inputs to readjust the organic structure of the Ministry of Health (for example, through the creation of a Research Department); start a process of organizational development; formulate the National Health Policy and the Concerted Health Agenda; as well as elaborate Regional Health Agendas based on the regional evaluations.

Cuba

After the national measurement, the EPHF performance measurement instrument was adapted to the sub-national level and applied in 9 municipalities. The municipalities were selected based on their public health performance. As part of the process, capacity-building initiatives were carried out to train facilitators on the EPHF performance measurement at the local level. The results of the application were used as inputs for improving training programs. In 2009-2010, Cuba is planning to carry out another evaluation of public health practice.

Dominican Republic

After the first national measurement in 2001, the Dominican Republic carried out a meeting in 2002 to assess progress and future needs to improve EPHF performance. The final goal was to obtain input for the elaboration of a National EPHF Development Plan, as well as a concerted sub-regional plan for all member countries. A technical team brought together during this meeting developed a methodology and a chronogram for implementing actions to develop the EPHF. In 2006, a workshop for the performance assessment of the steering role of the National Health Authority was carried out. As one of the dimensions of the steering role in health, EPHF performance at the national and sub-national levels was evaluated and an action plan with strengthening strategies and interventions was devised.

El Salvador

In 2005, El Salvador embarked on the task of elaborating a Plan for Developing the Essential Public Health Functions. As inputs for the preparation of this document, the Ministry of Health used the results of two EPHF performance assessments carried out in 2001 and 2005. The Development Plan adopted an intersectoral approach, strategically designed to strengthen social participation in health. At the same time, based on the results of the performance assessment, the idea was to develop proposals for strengthening the steering role of the Ministry of Health, since the Ministry is the instance responsible for executing the EPHF. One important development in the El Salvadorian experience was the interest generated by the measurements in estimating the cost of implementing the EPHF.

Eastern Caribbean Region⁹

In 2001-2002, all member states of the Eastern Caribbean Region,¹⁰ with the exception of the French Departments of America (FDA), conducted the EPHF performance measurement. In 2005, a period when many of the Eastern Caribbean countries (ECC) were either developing or on the verge of formulating National Strategic Health Plans (NSHP), the PAHO Office for the Eastern Caribbean Countries (OECC) started an initiative to bring public health to the forefront of the health agenda in the ECC. OECC planned to use this opportunity to include EPHF strengthening in the NSHP and complete the EPHF measurement in the FDA.

The EPHF performance measurement instrument was applied in 8 countries (Anguilla, Barbados, British Virgin Islands (BVI), Dominica, Grenada, St. Lucia, St. Kitts & Nevis, and St. Vincent & the Grenadines). For Anguilla and the BVI, the results reinforced the need to revisit the role of the Ministry of Health (MOH) as the National Health Authority, which led, in the case of BVI, to the development of a proposal to restructure the MOH. In Barbados, results revealed that EPHF #6 was in most need of strengthening and an initial step would be an "Enforcement Workshop" to train public health workers in prosecuting public health offenders. In Grenada, St. Kitts & Nevis, and St. Vincent & the Grenadines, sections on the EPHF were incorporated in their NSHP. The EPHF performance assessment was also carried out in the FDA.

Guatemala

In 2003, Guatemala undertook a second national measurement, with the participation of Ministry of Health officials from the central, regional and local levels. Based on the results of the performance measurement, the EPHF were incorporated in the Basic Guidelines and Health Policies of the Ministry of Health for the period 2004-2008, and in the Strategic Plan of the Guatemalan Social Security Institute. In addition, the San Carlos University incorporated the EPHF in its Human Resources Development Strategy and in the curriculum of their Masters in Public Health program.

Honduras

After the national EPHF performance measurement in 2000, Honduras embarked on the process of conducting a second EPHF measurement at the national and sub-national levels in 2003. The decision to conduct a second measurement followed a political mandate to strengthen health management at the intermediate level. The EPHF results provided a baseline to propose strategic interventions to improve the National Health Authority's performance and to support health sector reform processes. Honduras took into consideration the first measurement exercise as well as the experience of other countries as a basis for institutionalizing the EPHF at the central, departmental and

⁹ Information for this section was obtained from the presentation *Essential Public Health Functions in the Eastern Caribbean* (lecture given at the Seminar *The Health Systems Strengthening Conundrum: How Do Essential Public Health Functions Fit into the Puzzle?*, Washington, D.C., Feb. 27, 2007.) Available at: http://www.lachealthsys.org/documents/events/weblaunch07/EPHF_event_Dr_Reynaldo_Holder.pdf.

¹⁰ The Eastern Caribbean Region is comprised of 7 independent countries (Antigua and Barbuda, Barbados, Dominica, Grenada, St. Lucia, St. Kitts & Nevis, St. Vincent & the Grenadines); 3 United Kingdom territories (Anguilla, British Virgin Islands, Montserrat); and 3 French Departments of America (Guadeloupe, French Guiana, and Martinique).

municipal levels. The EPHF were viewed as a guide to improve public health practice, improve quality, increase accountability, and strengthen health infrastructure. Based on the results of the sub-national measurements, a series of recommendations and proposals to improve EPHF performance were developed and incorporated into regional health plans.

Peru

In the context of the decentralization process in Peru, it was necessary to develop a profile of the Regional Health Authorities, identifying the infrastructure and the capacity of these governments to carry out their decentralized responsibilities. Therefore, the Ministry of Health carried out an EPHF performance assessment in the 24 regions of the country during 2005-2006. Based on the results of the assessment, combined with a Health Situation Analysis for each Region, and in the context of the MDGs and the country's health priorities, the government set out to strengthen the decentralized management capacity of the regions to address the health problems of the population.

The measurement also provided a baseline for the EPHF performance at the regional and national levels, presenting a strategic input for the elaboration of the Regional Participatory Plan, the National Health Plan and other initiatives to strengthen national and regional capacity. In order to perform the assessment, the measurement instrument was carefully reviewed and adapted, with the goal of maximizing its use for regional application. The gaps identified in the measurement were converted in proposals and strategies, adapted to the context of each region, to strengthen the functions that obtained the lowest performance.

Puerto Rico

Based on the results of the first EPHF performance assessment (2001), the Puerto Rico Department of Health devised guidelines for the elaboration of a plan to strengthen the EPHF, as well as to monitor the performance of each function. The objective of the guidelines was to develop a standardized methodology to evaluate the improvement of public health practice as well as to document the results obtained after implementing a strengthening plan. The Department of Health also implemented mechanisms to ensure the continuity of the measurement and evaluation exercises. The Second Workshop on EPHF performance assessment was held in 2004, and the achievements reflected in this second measurement are largely attributable to the actions undertaken after the 2001 measurement. The measurement showed that all of the functions evaluated achieved a performance of greater than 50 percent, reflecting a significant improvement over the previous results, although improvements were not distributed evenly across the 11 EPHF.

Other Initiatives to Strengthen Specific EPHF¹¹

As mentioned previously, countries in the Region have continued the process of strengthening public health either by devising comprehensive interventions or by improving specific dimensions of public health systems such as public health research,

¹¹ This section does not aim to be comprehensive and contains a sample of the many initiatives to strengthen specific EPHF or particular dimensions of the public health system. Many other initiatives are currently under implementation, some of which may have not yet been documented.

public health workforce, or surveillance. Some of these strategies have already been mentioned above. Below some additional strengthening interventions are presented.

In **Costa Rica**, efforts have been made to strengthen **EPHF 8** (human resources development) through the characterization of the public health workforce (PHWF) at the national and regional levels as well as in urban and rural areas. In addition, the public health workforce involved in the implementation of each EPHF was identified, which will allow more focused interventions for those functions that had a lower performance. Regarding the strengthening of **EPHF 10** (public health research), Costa Rica has also carried out several initiatives: the implementation of a National Research and Technological Development Plan, the consolidation of a National Health Research and Technological Development Plan, development of an Information System in Research and Technological Development, capacity-building of professionals in technological evaluation and management, identification of a national entity that evaluates health technologies and interventions, and integration of networks in the system.

In **Mexico**, a major effort to improve **EPHF 8** has been made by the Veracruzana University through the implementation of a new curriculum for its Master of Public Health Program entirely based on the EPHF. The goal of the program is to form graduates that will become professionals committed to the development of the EPHF. In order to that, the course focuses on the competencies necessary to improve public health, including EPHF measurement and strengthening. The first step for the development of the new curriculum was the translation of the EPHF into professional competencies. The modules are fundamentally practical, with an emphasis on learning from actual experiences.¹² Mexico has also been involved in an effort to characterize its public health workforce in one of the jurisdictions of Veracruz and the amount of time the PHWF spends on the implementation of the EPHF. Results show that most of the time is spent on health promotion activities (EPHF 3) and the least amount of time is spent on public health regulation and enforcement (EPHF 6), and public health research and training (EPHF 10).¹³

In the **Dominican Republic**, similar initiatives to improve **EPHF 8** and estimate the cost of implementing the EPHF have been undertaken. The Universidad Autónoma de Santo Domingo (UASD) has developed a proposal for the new curriculum of its Master of Public Health in which the EPHF are the main axis for the organization of the program's content. Additionally, the country has taken steps to estimate the cost of implementing the EPHF using a methodology developed by Harvard University.

In **Bolivia**, steps have been taken to estimate the cost of implementing the EPHF. A methodology developed by PAHO/WHO for harmonizing the EPHF with the Functional Classification of the Government Finance Statistics Manual (GSFM-2001) was used.¹⁴

¹² Domingo Vázquez Martínez, et al. *De las funciones esenciales de la salud pública a la formación de maestros en Salud Pública*. In: Enrique Hernández Guerson (ed.). *Tópicos Selectos de Salud Pública*. Xalapa, Ver., Universidad Veracruzana, Instituto de Salud Pública, November, 2006: 169-191.

¹³ Enrique Hernandez, *Fuerza de Trabajo de Salud Pública en México. Caso Veracruz*. PowerPoint presentation. Available at: http://www.respyn.uanl.mx/especiales/2007/ee-18-2007/documentos/fuerza_de_trabajo_en_mexico.pdf.

¹⁴ PAHO/WHO Health Policies and Systems Unit (HSS/HP), *Harmonization of Essential Public Health Functions (EPHF) with the Functional Classification of Expenditure (FCM)*. Working Document. Washington, D.C.: PAHO/WHO, 2004.

The goal of the application in Bolivia was to: (i) estimate expenditure on EPHF in that country; (ii) identify in which functions the resources are being spent; and (iii) determine how much it would cost to fully implement the EPHF. The process of harmonizing the GSFM with the EPHF included grouping specific programs or project into different categories of the GSFM. The results show that most of the spending on EPHF in that country was concentrated on EPHF 9 (quality assurance in personal and population-based health services), EPHF 7 (evaluation and promotion of equitable access to necessary health services) and EPHF 5 (development of policies and institutional capacity for planning and management in public health).¹⁵

In **Colombia**, a strong emphasis has been placed in improving **EPHF 2**, which refers to public health surveillance, through the implementation of a National Public Health Surveillance System (SIVINGILA) in 2006. The SIVINGILA provides systematic information about events that affect or can affect the health of the population. The system will also orient policy and planning in public health; assist in decision-making for prevention and control of diseases and risk factors in health; optimize monitoring and evaluation of interventions; help to use the resources available more efficiently; and protect individual and collective health. SIVINGILA is made up of a group of standards, procedures and resources (financial, technical and human) organized for the collection, analysis, interpretation, updating, dissemination, and systematic and timely evaluation of the information on health events for action.¹⁶

In **Brazil**, efforts have been made to strengthen **EPHF 10** through the development and implementation of a National Agenda of Priorities in Health Research, which is part of an overarching Policy on Science, Technology and Innovation in Health. Priority themes for health research were identified according to specific criteria such as disease burden; analysis of health determinants; cost-effectiveness of interventions; impact on equity and social justice; and availability of human and financial resources.¹⁷ During the 2nd National Conference on Science, Technology, and Innovation in Health held in July 2004, 24 topics for research were identified, which included, among others, health promotion; health systems and policies; environmental health; indigenous health; evaluation of health economics and technology; health information and communication.

At the **global** level, it is worth mentioning the virtual course on Strengthening the Essential Public Health Functions developed by PAHO/WHO in partnership with the World Bank. The course is based on the 11 EPHF as defined by the Public Health in the Americas Initiative. It aims to develop leadership and competencies in the assessment and performance of the EPHF, and contribute to the strengthening of effective national public health systems. The course has been widely popular, with an exceedingly large number of applicants from all over the world. Although the course is currently available in English only, efforts are currently under to translate it into Spanish and Portuguese.

¹⁵ PAHO/WHO Health Policies and Systems Unit (HSS/HP). *Bolivia: Harmonization of Essential Public Health Functions (EPHF) with the Functional Classification of the Government Finance Statistics Manual (GSFM-2001)* (Washington, D.C.: PAHO/WHO, forthcoming).

¹⁶ Ministerio de la Protección Social, & Organización Panamericana de la Salud (OPS/OMS). *Sistema Nacional de Vigilancia en Salud Pública: Aspectos Generales*. Colombia, Bogotá: Ministerio de la Protección Social, and OPS/OMS, December 2005.

¹⁷ Ministério da Saúde. *Agenda Nacional de Prioridades de Pesquisa em Saúde*. 2006. See also: R. Guimarães, L. Santos, A. Angulo-Tuesta, and S. Serruya. *Definição e implementação de uma Política Nacional de Ciência, Tecnologia e Inovação em Saúde: lições a partir da experiência brasileira*. Cad. Saúde Pública vol.22 no.9 Rio de Janeiro Sept. 2006.

As a first step in this direction, the PAHO Virtual Campus in Public Health aims to make the Spanish version of the course available in 2008 for application at the regional level. In Argentina, application of the virtual course is one of the activities envisioned in the World Bank Project *Essential Public Health Functions and Programs 2007-2010*. In Cuba, the virtual course has been adapted to its specific context with the goal of strengthening the organizational capacity of the management teams at the national and sub-national levels in that country. The course has been applied in 3 western provinces during 2007 and applications are currently underway in 4 additional provinces.

3.2. Experiences Outside of the LAC Region¹⁸

Australia

In 2000, Australia conducted a Delphi Study which identified nine core public health functions. The National Public Health Partnership (NPHP) identified established and emerging practices for each function and based on this, a methodology (surveys and interviews) was developed and applied in eight regional areas of rural Western Australia. In an effort to continue the performance assessment of public health functions, the Public Health Performance Project was created in January 2002. The Project developed a set of key performance indicators for public health practice. It explored the context for performance measurement in public health in Australia and some of the key issues and challenges.¹⁹

The Balkans

The Canadian Public Health Association sponsored a three-year regional project in Bosnia & Herzegovina, Serbia and Montenegro (including Kosovo), and Albania between December 2001 and April 2005. The goal was to improve the health of people living in the Balkan countries by strengthening the capacity of the public health systems both at the country and regional levels to respond effectively to priority health needs through supporting and facilitating local, national and regional responses to public health issues. The project supported regional consultations on public health designed to encourage and facilitate discussions and action on important public health issues that affect the Balkans region. Project achievements include, among others: Strengthening of Epidemiological Surveillance and Monitoring; Reinforcement of Health Information Systems; Laboratory Services Quality Assurance/Quality Control; Training in Public Health; Training in Health Promotion; Creating awareness about the role of national public health associations, and strengthening links with European, Canadian and international public health associations and communities.²⁰

¹⁸ This section contains the findings of a rapid internet review. It is likely that experiences from other countries not mentioned in this document also exist, but were not included due to lack of information.

¹⁹ National Public Health Partnership. *National Delphi Study on Public Health Functions in Australia, Report on the findings*. Victoria, Australia. January 2000. See also: T. Lower, G. Durham, D. Bow, and A. Larson. *Implementation of the Australian core public health functions in rural Western Australia*. Australian and New Zealand Journal of Public Health 2004 Vol. 28 No. 5.

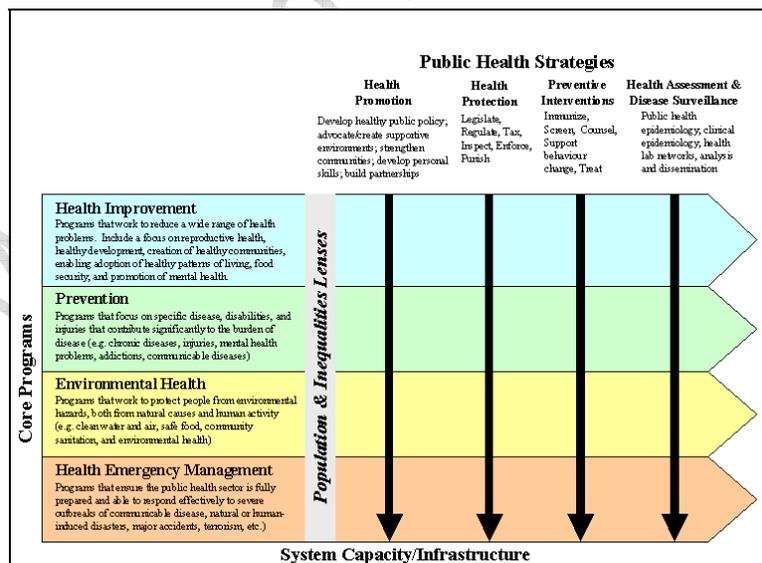
²⁰ Canadian Public Health Association (CPHA). *Project Strengthening Essential Public Health Functions in the Balkans*. Available at: <http://www.cpha.ca/en/programs/infrastructure/balkans-recent.aspx>.

Canada

Canada has been devoting much attention after the SARS outbreak and other public health challenges to the development of public health systems. One important step was the identification of five core public health functions: Disease and Injury Prevention; Health Promotion; Health Protection; Health Surveillance; and Population Health Assessment. Once core functions had been identified, Canada started a process of defining the core competencies in public health, which culminated in the publication of the document *Core Competencies for Public Health in Canada* released in September 2007. These competencies can be defined as the knowledge, skills and abilities for all public health professionals.²¹

Another interesting initiative has taken place in British Columbia through the development of a Core Functions Framework. The Framework establishes the core functions of an effective public health system and it includes essential functions (inherent to the system) and those that give support to the system in the process of implementing its functions. These functions are common to the entire health system. The main components of the framework are: core programs (basic public health services); public health strategies (through which core programs are implemented); population/equity lenses (that ensure that health needs are met); and system capacity (health information systems, quality management, research and knowledge, and human resources training). BC is now in the process of gathering best practices in public health, which will be the basis for performance assessment and improvement. The results of the assessment will assist in the allocation of future public health funding.²²

Core Public Health Functions Framework for British Columbia, Canada



²¹ For additional information, please refer to: <http://www.phac-aspc.gc.ca/ccph-cesp/index-eng.html>.

²² Ministry of Health Services Province of British Columbia. *A Framework for Core Functions in Public Health - Resource Document*. March 2005. See also: Ministry of Health Services. *Public Health Renewal in British Columbia: An Overview of Core Functions in Public Health*. March 2005 and

In Quebec, the EPHF performance measurement instrument developed by PAHO/WHO, CDC and CLAISS was adapted and applied in September 2005. The objective of the application was to support the implementation of the national public health program and to improve health system governance in regards to public health. The expected results of the evaluation were the identification of strengths and weaknesses in EPHF performance; development of a collective consensus on the functions in need of improvement; dissemination of results to support decision-making based on reliable data; and the opportunity to conduct a more systematic analyses that will allow comparing the results with previous and future evaluations.

India

In 2003, the World Bank undertook a performance assessment of the EPHF in India. The functioning of the EPHF was measured using survey instruments adapted from those developed by CDC and PAHO in their studies of public health systems in Latin American countries. Twelve EPHF were assessed using questionnaires that were modified for use in India, with inputs and feedback from experts and counterparts in that country. One major departure from the methodology used by PAHO and CDC was that instead of basing answers on consensus, the Indian study obtained responses from individuals separately. One major conclusion of the study is that most health professionals are not aware of what is entailed for carrying out public health functions effectively. The study revealed that one of the potential benefits of using the assessment tool is to raise awareness regarding the activities and functions that are important for improving public health practice.²³

Indonesia

Since 2001, Management Sciences for Health (MSH) has been involved in an effort to strengthen Indonesia's decentralized public health infrastructure. Working in partnership with the Ministry of Health, and based on the WHO conceptualization of the EPHF, MSH helped the Ministry to identify minimum public health responsibilities for governments at the district level. The process included: the definition of *Obligatory Public Health Functions*, national targets and performance standards; providing guidance to districts in the context of decentralization; and application of the OPHF standards within the *Performance Assessment and Improvement* (PAI) process by district health teams. As a result of this initiative, a process of performance assessment and improvement at district and municipality levels has been developed and implemented; and performance and monitoring of selected essential services and related health problems in participating districts has improved dramatically.²⁴

Spain

In 1998-1999, an assessment of the public health functions, activities and structures in large and medium-sized municipalities in Cataluña was undertaken. The information was

²³ Monica Das Gupta and Manju Rani. *India's Public Health System How Well Does It Function at the National Level?*. World Bank Policy Research Working Paper 3447, November 2004.

²⁴ Stephen Sapirie, *The History and National Application of Essential Public Health Functions (EPHF)* (presentation given at the Seminar The Health Systems Strengthening Conundrum: How Do Essential Public Health Functions Fit into the Puzzle?, Washington, D.C., Feb. 27, 2007). Available at: http://www.lachealthsys.org/documents/events/weblaunch07/EPHF_event_Dr_Steve_Sapirie.pdf.

collected through the application of a questionnaire that referred to three main aspects of the public health performance at the municipal level: (i) public health functions; (ii) public health activities; and (iii) structural aspects of public health municipal services. The public health functions used in the assessment were the same ones identified by the U.S. Institute of Medicine report: assessment, policy development, and assurance. Public health activities were defined as health protection, promotion and prevention. With respect to structural aspects of municipal services, the study reviewed municipal health expenditure per resident/year, the size of the public health workforce, and how local governments organize themselves to provide public health services. The results revealed that local governments performed better in the policy development and assurance functions than in the assessment function. In regards to public health activities, local governments played a greater role in health protection than in promotion and prevention. Municipal health expenditure was approximately 6 Euros per resident/year and the size of the public health workforce was estimated at 814 employees.²⁵

United Kingdom

In July 2001, the Department of Health published the report *Shifting the Balance of Power within the NHS: Securing Delivery*, in which the scope and functions of the public health system were laid out as follows:²⁶

1. Health surveillance, monitoring and analysis;
2. Investigation of disease outbreaks, epidemics and risks to health;
3. Establishing, designing and managing health promotion and disease prevention programs;
4. Enabling and empowering communities and citizens to promote health and reduce inequalities;
5. Creating and sustaining cross-governmental and inter-sectoral partnerships to improve health and reduce inequalities;
6. Ensuring compliance with regulations and laws to protect and promote health;
7. Developing and maintaining a well-educated and trained, multidisciplinary public health workforce;
8. Ensuring the effective performance of NHS services to meet goals in improving health, preventing disease and reducing inequalities;
9. Research, development, evaluation and innovation; and
10. Quality assuring the public health function

Following the publication of this report and the document *Getting Ahead of the Curve: A strategy for combating infectious diseases*, the UK experienced significant changes in the organization, policy, service delivery and the balance of power in the public health system. The impact of these changes raised concerns regarding adequate public health capacity in the British Isles. According to a 2006 survey, there are worrying signs in terms of the reported overall capacity of public health teams, with fewer than 44.8% reporting that their team had adequate or more than adequate capacity. This has

²⁵ P. Líndez, J.R. Villalbí and J. Vaqué. Funciones, actividades y estructuras de salud pública: el papel de los municipios grandes y medianos. *Gaceta Sanitaria* 2001; 15 (2): 164-171. Available at: <http://db.doyma.es/cgi-bin/wdbcgi.exe/doyma/mrevista.fulltext?pidet=12003889>.

²⁶ Department of Health. *Shifting the Balance of Power within the NHS: Securing Delivery*, Department of Health, London (2001). Available at: <http://www.nhshistory.net/shiftingthebalance.pdf>.

prompted action at all levels to better understand the problem and develop strengthening strategies.²⁷

Also in 2001, a document titled *Report of the Chief Medical Officer's Project to Strengthen the Public Health Function in England* was published. This document provided a framework for strengthening public health function in England and implementing the National Health Service action plan set out in the report *Saving Lives: Our Healthier Nation*. According to the report, full implementation of the Government's health strategy and modernization program for health and local authority services is dependent on achieving a stronger public health function.²⁸ Since then, several initiatives to develop public health capacity have been carried out including substantial efforts to characterize and strengthen the public health workforce.²⁹

In 2004, the Department of Health, Social Services and Public Safety published the document titled *Review of the Public Health Function in Northern Ireland*. This report contains findings and recommendation that included the following goals: (i) assessing the current status of the Public Health Function in Northern Ireland; (ii) examining existing arrangements and activities regarding the ability to deliver current and future objectives for public health in Northern Ireland and the rest of the UK in relation to organization and development; (iii) establishing an agreed vision of the role of the Public Health Function in Northern Ireland; and (iv) making recommendations to strengthen the future provision of the Public Health Function in Northern Ireland.³⁰ The Review has also been carried out in England, Scotland and Wales.

United States

In 1988, the Institute of Medicine published *The Future of Public Health* which identified the three core functions in public health: assessment, policy development, and assurance; and the level of government – federal, state, and local – in which each of these functions would be best performed.³¹ In 1994, the Essential Public Health Services Work Group of the Core Public Health Functions Steering Committee published a statement called *Public Health in America* which identified 10 essential public health services.³² The graph below shows the core public health functions and the 10 essential services.

²⁷ Department of Health, *The Specialist Public Health Workforce in the UK, 2005 Survey: A Report for the Board of the Faculty of Public Health*, March 2006. Available at:

http://www.fph.org.uk/prof_affairs/downloads/workforce/FPH%20Workforce%20Survey%202005.pdf.

²⁸ Department of Health, *Report of the Chief Medical Officer's Project to Strengthen the Public Health Function in England*, Department of Health, London (2001). Available at:

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4062358.

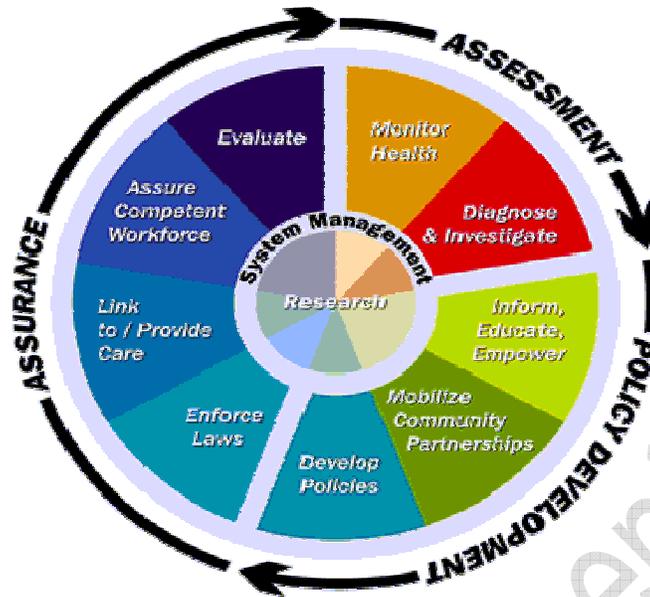
²⁹ For further information on efforts to strengthen public health workforce in England, see:

<http://www.who.int/bulletin/volumes/85/12/07-044289/en/index.html>.

³⁰ Department of Health, *Social Services and Public Safety. Review of the Public Health Function in Northern Ireland*, Final Report. December 2004.

³¹ IOM, *The Future of Public Health*. Washington: National Academy Press, 1988.

³² See CDC Web site: <http://www.cdc.gov/od/ocphp/nphpsp/EssentialPHServices.htm>.



These 10 services provide the fundamental framework for the National Public Health Performance Standards Program (NPHPSP) developed in 1998, by describing the public health activities that should be undertaken in all communities and identifying performance standards for their implementation. NPHPSP in collaboration with CDC developed three public health performance assessment instruments, the *State Public Health System Performance Assessment*, the *Local Public Health System Performance Assessment* and the *Local Public Health Governance Performance Assessment*.³³

In particular, the development of the local public health system instrument has been linked to a community health improvement process, *Mobilizing for Action through Planning and Partnerships* (MAPP), which has been implemented with the support of the National Association of County & City Health Officials (NACCHO). In addition, the Public Health Foundation and Turning Point Performance Management National Excellence Collaborative have developed the Performance Management Self-Assessment Tool which helps public health agencies to improve their management performance.³⁴

In regards to EPHF 8, several initiatives have been implemented to characterize the PHWF.³⁵ A study conducted by Columbia University in the year 2000 revealed that the PHWF in the United States was estimated at 448,254 persons in paid positions and at least 2,864,825 in voluntary positions.³⁶ Efforts have also been made to identify the core competencies for guiding public health workforce development. Core competencies are divided in eight domains: Analytic Assessment Skills; Basic Public Health Sciences Skills; Cultural Competency Skills; Communication Skills; Community Dimensions of

³³ See CDC Web site: <http://www.cdc.gov/od/ocphp/nphpsp/NewInstrument.htm>.

³⁴ For further information on these tools see: <http://www.naccho.org/topics/infrastructure/NPHPSP.cfm> and <http://www.phf.org/performance.htm>.

³⁵ PAHO/WHO, "Public Health Workforce: Selected Literature Review." *Series Human Resources for Health #46*. (Washington, D.C.: PAHO/WHO, 2006).

³⁶ K. Gebbie, "The Public Health Workforce Enumeration 2000". Cited in PAHO/WHO, "Public Health Workforce: Selected Literature Review." *Series Human Resources for Health #46*. (Washington, D.C.: PAHO/WHO, 2006).

Practice Skills; Financial Planning and Management Skills; Leadership and Systems Thinking Skills; and Policy Development/Program Planning Skills.³⁷

Box 1: Strengthening the EPHF – Experience from other WHO Regions³⁸

Regional Office for Europe (EURO)

The European Office of WHO has started a process of defining and developing a performance evaluation methodology that can be applied to public health services. A Core Expert Group on the topic was created and was given the task of developing a Discussion Paper identifying the Essential Public Health Functions (EPHF) and proposing a methodological framework for their assessment, in the context of European countries. The methodology will be a comprehensive questionnaire for the identification of strengths and weaknesses in public health systems and a computer-based self-assessment tool. The Discussion Paper is currently undergoing consultations.³⁹

Regional Office for South-East Asia (SEARO)

In a significant step towards strengthening public health in the South-East Asia (SEA) Region, SEARO has launched the “South-East Asia Public Health Initiative, 2004-2008.” This initiative aims to achieve the following five major goals: (i) position public health high on the regional and national agendas, and to generate strong commitment by national policy makers; (ii) support the strengthening of public health education in the countries of the SEA Region; (iii) enhance technical cooperation on the development of national public health training institution(s) in selected countries; (iv) facilitate the establishment of a public health education institutions’ network and foster regular interaction among them; and (v) help countries to define an appropriate package of essential public health functions tailored to each country’s situation and needs and support them to implement these functions.⁴⁰

Regional Office for the Western Pacific (WPRO)

Between 2000 and 2003, the WHO Regional Office for the Western Pacific embarked on a process of EPHF definition and assessment. The process consisted on the development of a framework for the definition of the EPHF relevant for the Western Pacific Region, followed by the identification of an evaluation methodology and its application in Fiji, Malaysia and Vietnam. Nine EPHF were identified and a range of methods were used, which included, among others, document analysis, interviews, and surveys, adapted to the context of each country. The selection of Fiji, Malaysia and Vietnam was based on the relevance of the countries for others in the Western Pacific region (considerations of geography; differing socioeconomic, demographic and epidemiological situations; and the organization of the health systems). Finally, proposals for the strengthening and sustainable delivery of functions were to be identified in each country where the methodology was applied.

³⁷ Council on Linkages between Academia and Public Health Practice, “Core Competencies for Public Health Professionals: Competencies Feedback Project.” Cited in PAHO/WHO, “Public Health Workforce: Selected Literature Review.” *Series Human Resources for Health #46*. (Washington, D.C.: PAHO/WHO, 2006).

³⁸ WHO offices are divided into six main regions: African Region (AFRO), Region of the Americas (AMRO), South-East Asia Region (SEARO), European Region (EURO), Eastern Mediterranean Region (EMRO), and Western Pacific Region (WPRO). The experience of AMRO was already detailed in the subsection on Latin America and the Caribbean.

³⁹ For more information, see: http://www.euro.who.int/publichealth/20070525_1.

⁴⁰ SEARO. *South-East Asia Public Health Initiative 2004-2008*. SEARO, 2004. Available at: www.searo.who.int/LinkFiles/Reports_HSD-278_.pdf.

One of the main findings of the study was that **primary health care was found to be crucial to the sustainable delivery of the EPHF**. In the three countries surveyed, the key structural approach for delivering EPHF is through integration into PHC, which represents a significant portion of health service delivery in the three contexts. The study also found that the main challenges for the optimal delivery of EPHF were: tensions between externally funded programs (especially vertical programs) and implementation of the EPHF; inadequate capacity in research, development and implementation of innovative public health solutions, and inadequate funding as planning and allocation processes are dominated by hospital practitioners.⁴¹

4. CONCLUSION

The experiences described previously allow the identification of some lessons for future reference:

- Even though the Public Health in the Americas Initiative reached its peak in 2000-2001, with the application of the EPHF performance measurement instrument in 41 countries and territories and the publication of the assessment results in 2002, the rationale behind the Initiative - the EPHF as a mechanism for improving performance of public health systems – has been kept alive by the countries even as direct technical cooperation efforts in the matter were less pronounced. Countries have appropriated themselves of the concept and methods of the EPHF and have continued to monitor performance and implement strengthening interventions.⁴² This is so particularly because the EPHF offers a concrete framework, a tangible road for improving performance. One outcome is that these country efforts have generated resurgence in technical cooperation for EPHF in AMRO. Demand for cooperation on this topic is also increasing in other regions.
- Most of the countries are using the EPHF measurement instrument as a mechanism for strengthening health systems as a whole. The application of the tool, combined with other methodologies such as Health Situation Analyses, Performance Assessment of the National Health Authority's Steering Role, Health Sector Analyses, provide subsidies for the assessment of public health practice as a subsystem of the larger health system. Initiatives to improve public health services, with its emphasis in health promotion and prevention, will have an important impact on health systems. Also, countries have used the results of the EPHF assessments to draft national and sub-national health plans, defining policies and strategic interventions according to the needs identified through the evaluations.
- The EPHF performance assessment allows countries to explore the links between public health and primary health care (PHC), as the WPRO experience reveals. Because PHC also entails the first level of care, where most of the public

⁴¹ WPRO. *Essential Public Health Functions - A three-country study in the Western Pacific Region*. WPRO, 2003.

⁴² In her opening remarks at the First Public Health Meeting in Chile (2007) titled "Health in the 21st Century: Perspectives and Challenges," President Michelle Bachelet stressed the importance of strengthening the health authority so that it can adequately perform the essential public health functions.

health actions are carried out, the EPHF performance measurement exercise can also provide an indication of the status of public health services delivery at the primary level. In this context, actions to improve EPHF will have an impact in strengthening PHC, and vice-versa.

- The WPRO experience also revealed that a bottleneck for effective implementation of EPHF is the existence of vertical programs with their focus on specific diseases and/or populations. This finding is of particularly relevance for the LAC Region due to the large amount of international funding available for vertical initiatives. Vertical programs tend to have their own infrastructure, human resources and funding mechanisms, and may further compromise already weakened health systems by leaving other areas, especially public health programs, underfunded. There is a growing consensus that in order to strengthen health systems as a whole and ensure sustainability of interventions, greater integration of vertical programs may be an important step.
- Similarly, one of the elements of PHC-based systems is comprehensive, integrated and continuing care, which are intrinsically linked to public health. In regards to comprehensiveness, a range of services must be available to provide for population health needs, including health promotion and prevention. At the same time, integration requires coordination among all parts of the health system, including the articulation of personal and population-based care, the integration of health information systems, among others.
- As the Eastern Caribbean experience reveals, the EPHF measurement exercise can be a useful tool for assessing the role and responsibilities of the Ministries of Health in public health. The EPHF can serve as a framework for re-organizing ministries in decentralized systems as well as a guide for institutional development by: clarifying and disseminating “other functions” of the ministry, aside from healthcare delivery; strengthening specific areas that have revealed weaknesses in the measurement exercises; and helping to identify which functions should be decentralized and which should not be.
- The application of the EPHF measurement instrument has proven to have a positive impact both in terms of processes and outcomes. Regarding the first, the measurement exercise brings together different actors from diverse organizations from within and outside the public health sector. Especially in the case of Latin America, in which the EPHF measurement tool requires consensus in the responses, it allows different actors to express divergences and convergences regarding their perception of what works and what doesn't in public health. In addition, as was the case in India, the instrument helped to raise awareness regarding what services/functions are necessary to improve public health practice, which in most cases were not even known by the respondents. Regarding outcomes, the application of the instrument has been a first step in the process of improving public health practice. Many countries used the results generated by the measurement exercises at the national and sub-national levels to elaborate strengthening plans and agendas with concrete proposals and interventions.

- Although it is not clear to what extent countries outside of the Region are knowledgeable about the EPHF measurement instrument developed in the context of the Public Health in the Americas Initiative, it is very likely that they would benefit from a stronger effort to disseminate the Latin American experience. Countries in the Americas not only have applied the instrument, but they have adapted it for use at the sub-national level, they have combined the EPHF assessment it with other types of instruments (as the example in the Dominican Republic shows), and they have been actively involved in developing and implementing strengthening strategies based on the results. There is a richness of information that can be derived from all of these experiences which could be shared with other countries that are now taking steps to assess and evaluate public health systems.
- Further research is needed regarding the actual implementation of the EPHF strengthening initiatives that have been elaborated in the Region and its actual impact on the public health system. In addition, there is a need for further research on the links between EPHF, PHC and integration of vertical programs.

Working Document