The Pan American Health Organization and international health: a history of training, conceptualization, and collective development

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ABSTRACT *A constantly changing and increasingly complex global environment requires leaders with special competencies to respond effectively to this scenario. Within this context, the Pan American Health Organization (PAHO) goes beyond traditional leadership training models both in terms of its design as well as its conceptual approach to international health. As an intergovernmental, centenary organization in health, PAHO allows participants a unique vantage point from which to conceptualize, share experiences and develop projects relevant to international health. Derived from over two decades of experience (1985–2006) training professionals through its predessor Training Program in International Health, the Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP) utilizes an innovative design, virtual and practical learning activities, and a problem-based approach to analyze the main concepts, theories, actors, forces, and processes relevant to international health. In collaboration with PAHO/ WHO Representative Offices and national institutions, participants develop country projects based on priority health issues, many of which are integrated into the Organization's technical cooperation and/or implemented by relevant ministries and other entities in their respective countries/subregions. A total of 185 participants representing 31 countries have participated in the LIHP since its inception in 2008, building upon the 187 trained through its predecessor. These initiatives have contributed to the development of health professionals in the Region of the Americas devoted to international health, as well as provided important input towards a conceptual understanding of international health by fostering debate on this issue.*

Key words World health; Pan American Health Organization; human resources formation; international cooperation.

The need for leaders who are equipped to address the current complex global environment is critical. The rapidly growing interdependence and ever-increasing blurring of boundaries between nations—illustrated in part by the growing migration of populations, opening of markets, liberalization of national economies, innovations in information and communication technologies and use of social media, spread of new and reemerging diseases, and expansion of social and economic regional and subregional integration blocks—have placed new and pressing demands on countries. At the same time, structural shifts in the world economy, together with demographic changes, have altered traditional patterns of the production, distribution, and consumption of goods, which in turn have impacted food and nutritional security and the availability and use of natural resources, among other changes. Seemingly disparate concerns, such as the A-H1N1 pandemic, the migration of health professionals, and increase in chronic diseases, highlight the importance of better understanding the complex relationship between health and broader social, economic, and foreign policy considerations,

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associations that have received increasing recognition from international organizations (1–8) and scholars (9–18).

While many health determinants transcend a country's borders, the primary responsibility for the populations' health resides within the national sphere, most commonly with the State. Leaders nationwide—irrespective of their geographic area, field, or scope of practice—must be able to understand and positively influence these determinants in order to improve their population's health status in a manner that is equitable, sustainable, and preserves a balance between economic growth and social development.

Leaders are increasingly required to formulate and implement actions that take into account bilateral, subregional, regional, and global treaties, agreements, targets, and mandates (19–22), and which require intersectoral and international action for their equitable and collective achievement. The recognition of this need to work together to solve global problems has added fresh dimensions to discussions on global public goods, governance, and citizenship, and sparked the development of novel intercountry agreements (23, 24).

These developments, along with the emergence of new alliances and structures and increasingly influential actors—particularly from the private sector and civil society—have altered dynamics in the definition of the global health agenda, posing new challenges for international cooperation and for countries who must reconcile the interests of these actors with national priorities. The manner and extent to which countries deal with and influence these dynamics are critical in their ability to move forward economically and socially.

Additional factors come into play in the Region of the Americas. Despite important strides in health, strong inequities persist, and, while not the poorest, this Region remains the world's most inequitable. Many countries are confronted with dual epidemiological realities, simultaneously combating noncommunicable and infectious diseases. Several have undergone a reduction in the role of the State, resulting in weakened health systems and human resources capacity, a situation further exacerbated by the current economic crisis.

While some countries have strong international cooperation entities, in others these are nonexistent, understaffed, and/or lacking in power and influence. In a similar vein, although most regional integration bodies have committees or mechanisms to deal with health matters, not all member nations are on equal footing in these forums. Moreover, there is little or no interaction between ministries of health, trade, finance, and foreign affairs, leaving policy makers ill-equipped to deal with health challenges (25, 26). The above factors can result in policy incoherence or, worse, actions that could be counterproductive or potentially harmful. As a result, the Americas, along with other, poorer world regions, is often a less-than-equal partner in the global arena, causing an inherent imbalance between those who define the global agenda and those who are left to implement the same, contributing oftentimes to unsustainable programs, unfinished mandates, misguided priorities, and mounting external debt.

The confluence of these issues, together with the distinctive cultural, social, economic, and political realities of the Americas, creates both unique challenges and new opportunities for politicians, administrators, educators, scientists, and other professionals responsible for health. Leaders are needed across sectors and at all levels to facilitate the creation and implementation of policies and programs that are sound in their analysis, effective in their implementation, and reflect the realities, culture, and values of the populations they serve. Academia and research are also crucial in training future professionals and providing evidence to support policies by key decision-makers.

PAHO's historical role in international health training

The Pan American Health Organization (PAHO) has contributed to the development of such leadership for over 25 years. In 1985, PAHO's Department of Human Resources Development recognized the need to develop a new type of leadership in the Region that would: (1) permit a better understanding of PAHO and international cooperation, while contributing to their transformation; and (2) promote solidarity among countries and a strong commitment to social justice and the right to health, elements considered critical in a regional context characterized at the time by turbulence and social conflict (27). This vision led to the creation of the Training Program in International Health (TPIH), also known as the Residency in International Health, to highlight a learning strategy characterized by the insertion of participants in the life and daily workings of the Organization. This initiative flourished during 21 years, training 187 professionals from 32 countries (Figure 1) as well as inspiring decentralized internship programs in international cooperation.[3]

Many former participants moved on to hold strategic positions within national ministries, bilateral agencies, international organizations, academia, and NGOs, and are active players in the international health arena (28–30). By bringing an enhanced international health perspective to their work, they contribute to the development of equitable and effective health policies, provide fresh insight and critical reflection on the role of international cooperation, and serve as strategic partners in the implementation of key regional and global mandates.

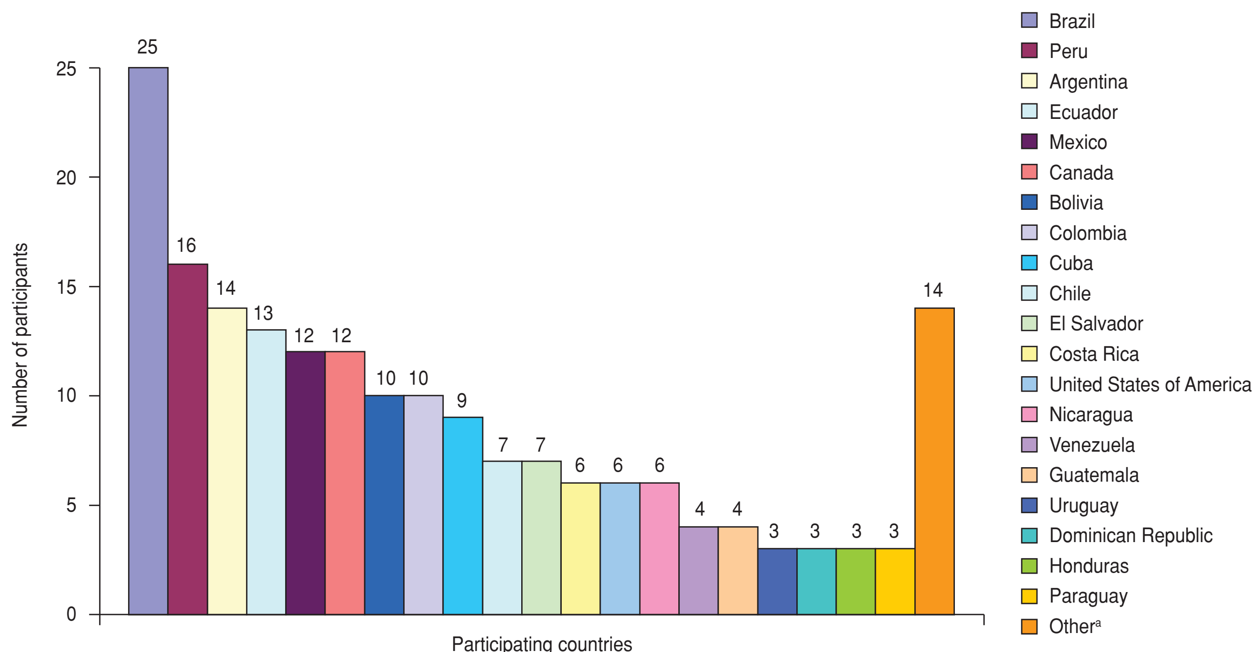
The TPIH has also been at the vanguard of the conceptual development of international health, contributing to its theoretical development and evolution as a field of study and practice. An important milestone was the publication, *International Health: A North-South Debate*, which pointed to key discrepancies in thinking between countries of the "North" and "South" (31). This work highlighted the relationship of health to international relations, foreign policy, trade, and security, and stressed the need to move beyond a technical assistance model to one based on cooperation and collaboration. PAHO and former participants continue to contribute to the international health field through presentations, publications, curricula development,[4] research, and institutional networks.

Notwithstanding these contributions, the increased pace of globalization, evolving regional context, and growing importance of health on the global political agenda (15) points to a greater need for developing leadership capacity in international health issues (32–36), a situation recognized by PAHO Member

[3] Such programs were implemented in El Salvador and Colombia (28).

[4] Programs have been developed in Argentina, Brazil, Canada, Chile, Colombia, Cuba, and Mexico, among others.

FIGURE 1. Number of participants by country, Training Program in International Health (TPIH), 1985–2006



Source: adapted from TPIH program data by the authors.

[a] Other: Belize (2), St. Lucia (2), Bahamas (1), Netherlands Antilles (1), Trinidad and Tobago (1), Panama (1), Suriname (1), St. Kitts and Nevis (1), Barbados (1), Jamaica (1), Antigua and Barbuda (1), Haiti (1).

States (4). A study conducted by PAHO in 2006 noted that, whereas the need for developing international health—both as a field of study and of practice—has increased greatly over the years, there was still a lack of opportunities for comprehensive training within the Region (37). While the past decade has seen a significant rise in the number of international and global health programs and departments in academic institutions, most of this growth has occurred in higher-income countries (38), with limited input and participation from lower- and middle-income nations, leading to an imbalanced and partial view of the problems and potential solutions regarding international health issues.

Leaders in International Health Program "Edmundo Granda Ugalde"

A growing interest in international health issues in the Americas, coupled with increased connectivity, has resulted in an environment conducive to providing training utilizing distance learning and networks. Based on this evolving regional context and drawing upon its extensive experience and expertise in international health training, PAHO's strong country-level presence and relationship with ministries of health and other national entities, and its vast array of relationships and networks in the Americas and across the globe, in 2008 the Organization launched a new decentralized modality of the TPIH called the "Leaders in International Health Program" (LIHP), naming it the following year after Edmundo Granda Ugalde, a public health physician from Ecuador, in recognition of his example, solidarity, innovative spirit, and invaluable contributions to public health and international health.

The objective of the LIHP is "to contribute to the development of the Health Agenda for the Americas 2008–2017 by strengthening the capacity of countries in the Region to understand, act upon, and positively influence the international determinants of health; to promote their national interests; and to achieve intersectoral health agreements in international environments, at all times guided by the principle of greater global equity in health" (39).

The LIHP targets mid- to high-level managers and directors in decision-making capacities within ministries of health, development, finance, foreign affairs, and others as well as from PAHO, other international agencies, academia, and NGOs. Emphasis is placed on country teams to facilitate intersectoral and interdisciplinary collaboration. Through a special agreement with the Ministry of Public Health of Cuba, coordinators of the Cuban Medical Brigades in priority countries have also been incorporated.

The Program promotes the development of a set of knowledge, skills, attitudes, and values associated with international health theory and practice, which have been organized into a system of competencies and are oriented towards ethical principles and the values of equity, solidarity, social justice, and the right to health (40) (Table 1).

The LIHP is based within PAHO's Virtual Campus for Public Health (VCPH), a virtual space that contributes to the development of the public health workforce through online networks and the electronic development and sharing of learning resources. Participants remain in their home institutions, allowing them to continuously integrate learning into their institutional and national context as well as share knowledge with their colleagues, fostering an ever-expanding community of practice.

The Program encompasses nine months, initiating in the participant's country. In collaboration with the respective PAHO/WHO Representative Office, participants

TABLE 1. Competencies of the Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP)

Type of competency	Description
Basic competencies	Set of generic capabilities of an instrumental nature that is fundamental for all international health professionals to adequately carry out their role. Examples include basic skills in verbal/written communication, accessing and analyzing information, use of technologies, and time management.
Specific competencies (also called technical or specialized competencies)	Characteristic of certain occupations or functions. Correspond to the knowledge and know-how regarding the set of models, theories, methods, and specialized techniques related to a particular discipline or field.
Cross-cutting competencies (also called transversal or central competencies)	Refer to abilities or attributes common to all international health professionals. Strategic and broad in their perspective. Integrate and enhance the potential of the basic and specific competencies, enabling greater action and capacity for response in international health both from within and outside of one's discipline or field. The six main competencies stressed by the Program are:[a] 1. Situational analysis: The ability to analyze a situation in-depth so as to intervene successfully. 2. Policy formulation and decision-making: The capacity to develop and influence policies and strategies conducive to life and human health. 3. Negotiation and advocacy: The ability to understand and direct change processes in relation to a given problem or challenge that is shared by different groups or institutions. 4. Project management and cooperation: The ability to develop and establish relationships and reach collaborative agreements that are mutually beneficial in order to achieve specific objectives. 5. Production and dissemination of information: The ability to develop and communicate innovative information about international health. 6. Communication: The ability to formulate an argument and communicate it effectively to key stakeholders in order to achieve a desired outcome.

Source: adapted from: LIHP General Program 2011 by the authors.
[a] Developed in consultation with a group of experts from PAHO, academia, ministries of health and foreign affairs, and other organizations working in international health, foreign affairs, health diplomacy, and the social sciences.

engage in discussions and visits related to the principal health and development challenges facing their country, subregion, and region, the main actors involved in the same, and key regional and global strategies, mandates, and initiatives. With support from the LIHP Coordination, they begin to define a country project to be developed in cooperation with the Representative Office, national entities, and other actors. Participants subsequently attend a one-week, onsite training in the Region focusing on the historical and conceptual bases of international health and its application to their selected country projects. They also engage in competency-building exercises in negotiation, leadership, and communication/advocacy.

Upon completion of the onsite phase, participants return to their countries where they divide their time between their institutional responsibilities and the LIHP. They continue to work on their country projects, developing a community of practice around their topic area that includes technical experts from PAHO/WHO, government, nongovernmental and private entities, as well as international actors, LIHP colleagues, mentors and tutors, and others. The community of practice contributes to the conceptualization, development, and, where applicable, implementation of the country project through virtual and onsite meetings.

In conjunction with the PAHO/WHO Representative Office, each country team develops a virtual Interactive International Health Room (IIHR) where they share relevant information[5] and dialogue with their communities of practice, other key stakeholders, and the general public regarding their projects. Based on the concept and experience of situation rooms common to public health, the IIHR are intended to support decision-making processes by promoting dialogue among various stakeholders on issues relevant to international health and contributing to the analysis of opportunities and development of potential solutions (41).

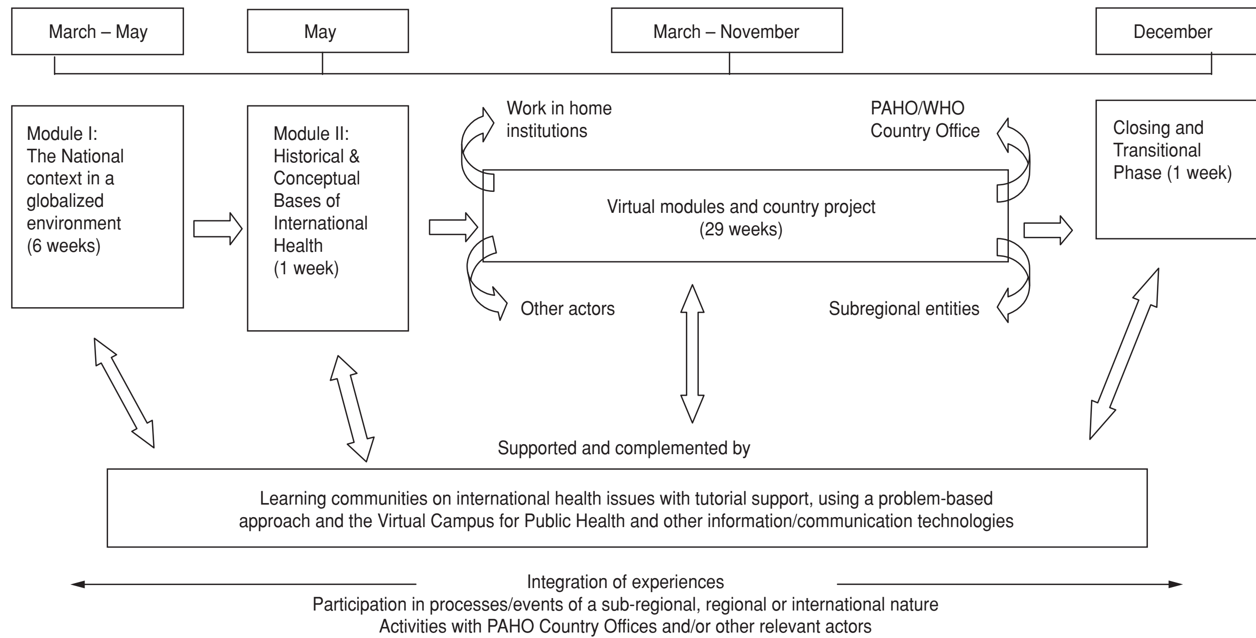
Participants simultaneously engage in a series of problem-based, virtual learning modules. In addition to "core" modules on key international health theories and practices, participants select from a series of "issue-based" modules, which allows them to analyze specific public health topics from an international health perspective. The development, implementation, and evaluation of these modules are carried out by renowned institutions in the Region in close coordination with the LIHP Coordination and relevant PAHO technical areas. Virtual seminars and panel discussions are incorporated to introduce cutting-edge topics,[6] and a virtual bulletin highlights key international health issues and Program outputs. PAHO/WHO Representative Offices invite participants to engage in other work and learning opportunities, exposing them to the technical, diplomatic, and political dimensions of international cooperation.The Program culminates with the presentation of the participants' final projects and evaluation (Figure 2).

The Program is undergirded by an international health conceptual model that attempts to explain the growing complexity of the processes of health and illness in an environment of shifting regional geopolitics and globalization by analyzing the impact of and interrelationship between key factors affect-

[5] Information shared is previously analyzed and synthesized in relation to five key areas or information fields: news, treaties and agreements, opinion profiles, research, and statistics.

[6] Past topics include the financial crisis and its impact on health; conflicts and international cooperation in situations of disaster; the nutritional food crisis; the impact of climate change on food and nutritional security; innovation and production of medicines within the context of globalization; and conflicts, violence, and trade.

FIGURE 2. Program Structure, Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP)



Source: adapted from: Pan American Health Organization. LIHP, 2011, http://new.paho.org/hq/index.php?option=com_content&task=view&id=2633&Itemid=3499

ing equity in health (42).[7] Taking into account the evolving nature of these determinants, and shifts in the power and influence of the relevant actors, the model is dynamic and flexible, benefiting from the contributions of each new LIHP cohort, collaborating institutions, and others, who strengthen its theoretical basis and subject it to the test of public health practice within the national and international environment.

Given that the objective of the LIHP is to strengthen national capacity, the Program's primary focus is on the State and health issues are analyzed through that prism, taking into account national interests, the relations and balances (or imbalances) of power between countries, and their role and projection within the international community. In this regard, the LIHP embraces a definition of international health that goes beyond its traditional conceptualization throughout most of the 20th century as encompassing the health problems of developing countries and efforts by industrialized nations and international organizations to address them (43), while promoting analysis and debate on other paradigms and perspectives (43–45).

The conceptual model provides a methodological framework that guides the international health projects of the participants (Table 2), who use it to offer a fresh critical and analytical vision of a problem or situation faced by their country and to propose a new focus and perspectives for action, as evidenced in their submissions to this special issue. It also serves as a guide for the virtual learning modules, and, together with the proposed competencies, provides an integrated learning framework and road map for the Program (Table 3).

Participants are supported throughout the learning process by mentors, organized by subregion. Hailing from academic institutions in the Americas and based on their experience as former LIHP or TPIH participants, mentors provide vital support and knowledge about international health, research methodology, and application of the Program's conceptual model to the country projects.

In all of the above activities, the focus is on the collective development of knowledge and learning in networks. Building from participants' own knowledge and experience, module tutors and mentors facilitate discussion and debate around key international health challenges, prompting participants to interpret and analyze the complex realities, forces, and interests behind these issues and to look for solutions or actions that will address the same, giving preference to those that promote intersectoral and inter-country collaboration. Participants are encouraged to continually "test" the concepts presented based on their own context, thereby facilitating "action learning" and contributing to the collective development of knowledge. These activities are enabled through interactive online forums, joint construction of definitions and glossaries (wikis), individual and group exercises, and virtual seminars and debates. Such learning experiences have been shown to be transformative, enabling participants to be both "teacher" and "student" and facilitating collective learning.

Program achievements and lessons learned

As the LIHP undergoes its fourth year, some key achievements and lessons learned can be noted.

Key achievements

1. *Strengthened national capacity*. To date, 185 participants representing 31 coun-

[7] These factors include, among others, trade, foreign policy/international relations, international cooperation, health diplomacy, conflicts/tensions between actors, models of development, security, human rights, science and technology, and migration.

TABLE 2. Forces of the international health conceptual model and possible elements for the analysis of public health topics

Force	Possible element for analysis
Trade	• Negotiations relevant to health and access to services, medicines, technology • Trade treaties, economic and other agreements • Modes of production and commerce • Fiscal policies (national, regional, and international) • Illegal trade
International cooperation	• Modalities of international cooperation • Trends in international cooperation • Alliances, structures, and actors • Global governance • Regional and global mandates • Harmonization and alignment
Health diplomacy	• Interests and role of actors involved in negotiations • Impact (direct and indirect) of negotiations on health • Economic and social integration processes (subregional, regional)
Models of development	• Varying concepts of development • Relationship between health and development • Social determinants of health • Social protection measures and public policies instituted by government to promote health and development (includes education, employment, health, nutrition, water and sanitation, etc.) • Potential “clash” between opposing models of development espoused by nations and/or population groups • Issues surrounding human security
Human rights	• Right to health • Equity in health • Legally binding laws and treaties governing human rights and the social determinants, particularly for vulnerable populations • National and international human rights law • Role and responsibilities of the State, the health sector, and civil society in guaranteeing health equity • Global public policies
Conflicts/tensions	• Between and within countries • Ideological and other differences between stakeholders • Clashes between actors’ interests
International relations/foreign policy	• Political, ideological differences between States • Competing national interests • Border health
Science/technology	• Information gap • Cultural impact • Health technologies—issues of quality, cost, access, etc.
Migration	• Migration of human resources • Access to health services/human rights • Conflicts

Source: prepared by the authors.

tries have benefited from the LIHP (Tables 4 and 5), expanding exponentially the number of professionals benefiting from training in international health. These individuals contribute to their institutions with a broader vision and more profound understanding of the international factors affecting national health issues and their possible solutions as well as important competencies in situational analysis, negotiation, project management, communication, and advocacy necessary to carry out their work.

2. *Projects developed and implemented on priority health topics*. Participants have contributed to the development of 92 projects on priority public health topics (Table 6), many of which have been integrated into PAHO’s technical cooperation and/or implemented by the relevant ministries and/or other entities in their respective countries/subregions. Projects remain “alive” on the IIHR and former participants continue to interact with their communities of practice and current participants to enrich the same.
3. *Enhanced technical cooperation*. The close collaboration with PAHO/WHO Representative Offices on country projects has not only contributed to the latter’s quality but also advanced technical cooperation efforts in countries, in some cases opening up new areas of cooperation with national and international counterparts. These efforts have been further enhanced by the incorporation of PAHO/WHO staff and coordinators of the Cuban Medical Brigades in the LIHP, leading to improved harmo-

TABLE 3. Relation between learning modules, forces of the conceptual model, Leaders in International Health Program "Edmundo Granda Ugalde" competencies and collaborating institutions

Module	Force	Competency	Collaborating institutions: Academic and other institutions	Collaborating institutions: PAHO/WHO technical areas
Core modules				
The national context in a globalized environment	All	Situational analysis	All	Health Systems Based on Primary Health Care
Historical and conceptual bases of international health	All	Situational analysis	All	Health Systems Based on Primary Health Care
Thematic modules				
International cooperation and health diplomacy	• International relations • International cooperation/ diplomacy	• Management of cooperation • Negotiation and advocacy	• Universidad de la Habana, Cuba	External Relations, Resource Mobilization and Partnerships
Conflicts, violence, and human rights	• Conflicts • Human rights	• Situational analysis • Negotiation and advocacy	• Universidad de Antioquia, Colombia • Instituto CISALVA, Universidad del Valle, Colombia	Sustainable Development and Environmental Health
Nutrition, human capital and development	Models of development	Policy formulation	• Nutritional Institute for Central America and Panama (INCAP), Guatemala	Family and Community Health
OR				
Climate change, development and health	Models of development	• Situational analysis • Negotiation and advocacy	• Universidad Mayor de San Andrés, Bolivia	Sustainable Development and Environmental Health
Chronic diseases and trade	Trade	• Situational analysis • Negotiation and advocacy • Policy formulation	• Nutritional Institute for Central America and Panama (INCAP), Guatemala • Caribbean Food and Nutrition Institute (CFNI), Jamaica • Institute of Population Health, University of Ottawa, Canada	Health Surveillance and Disease Prevention and Control
OR				
Access to medicines, trade and international agreements	• Trade • Human rights	• Situational analysis • Negotiation and advocacy	• Fundação para o Desenvolvimento Científico y Técnológico em Saúde (FIOTEC), FIOCRUZ, Brazil	Health Systems Based on Primary Health Care
Country project	All	• Production and dissemination of information • Communication	All	All

Source: prepared by the authors.

nization among actors and alignment with national priorities.

4. *Increased learning opportunities in international health*. LIHP collaborating institutions and participants have been instrumental in developing learning opportunities in international health in their countries/region by contributing to existing opportunities as well as exploring new avenues of learning, including seminar series, courses, workshops, academic specializations, and focalized training. The collaboration among these entities has led to the creation of an academic network comprised of over 15 institutions. The network, which offers significant contributions to the conceptual and curricular development of the LIHP in addition to members' own programs, recently put forth a series of objectives for the coming years, including curriculum development, joint research projects, and professional exchanges, among others.
5. *Development of learning resources in international health*. The LIHP has developed hundreds of learning materials (guides, case studies, readings, lectures, PowerPoints, recordings, videos, etc.) relevant to international health in both Spanish and English. Once a cohort is concluded, these materials are made available free of charge through the VCPH. Additional materials have been produced stemming from the work on the IIHR and commemoration of the 25th anniversary of PAHO's international health program in 2010 and are available from their respective Web sites (http://72.249.12.201/wordpress-mu/; http://new.paho.org/plsi25/). Through open access, users can view, download, adapt, and use these ma-

TABLE 4. Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP) participants by sub-region and country, 2008–2011

Subregion/Country[a,b]	2008[c]	2009	2010	2011	Total
English-speaking Caribbean					
Anguilla	—	—	1	—	1
Bahamas	—	—	1	—	1
Belize	2	1	2	1	6
Dominica	—	—	—	1	1
Grenada	—	—	—	1	1
Guyana	—	—	2	2	4
Jamaica	—	1	1	2	4
St. Kitts and Nevis	—	1	—	1	2
St. Lucia	—	—	1	—	1
St. Vincent and the Grenadines	—	1	—	—	1
Trinidad and Tobago	—	2	3	1	6
Subtotal	2	6	11	9	28
Andean region					
Bolivia	2	2	2	2	8
Colombia	3	3	3	3	12
Ecuador	3	3	3	2	11
Peru	2	3	1	2	8
Venezuela	—	—	1	—	1
Subtotal	10	11	10	9	40
Southern cone					
Argentina	4	2	2	2	10
Brazil	—	2	1	2	5
Chile	2	1	2	1	6
Paraguay	—	—	—	1	1
Uruguay	—	—	—	2	2
Subtotal	6	5	5	8	24
Mesoamerica and Spanish-speaking Caribbean					
Costa Rica	—	—	1	2	3
Cuba	—	3	2	4	9
El Salvador	—	3	2	1	6
Guatemala	2	—	1	3	6
Honduras	—	3	2	1	6
Mexico	—	2	—	3	5
Nicaragua	—	2	1	8	11
Panama	—	—	—	3	3
U.S./Mexico Border Field Office[c]	—	—	1	2	3
Subtotal	2	13	10	27	52
Cuban medical brigades[d]					
Belize	—	—	2	1	3
Bolivia	—	1	3	2	6
Cuba	—	3	—	—	3
El Salvador	—	—	—	1	1
Guatemala	—	4	3	2	9
Guyana	—	2	4	2	8
Haiti	—	2	—	—	2
Nicaragua	—	3	4	2	9
Subtotal	—	15	16	10	41
Total	20	50	52	63	185

Source: adapted from LIHP Program data by the authors.
[a] Countries listed denote country of residence (in case of Cuban Medical Brigades denotes country of service).
[b] Total number of countries benefitting from Program = 31.
[c] Pilot program.
[d] Although the participants from the US-Mexico Border Field Office to date have all been Mexican citizens, they are counted separately given their affiliation with the PAHO Border Office and the realities of the border region.

terials—either wholly or in part—and many are already being used by academic and other regional institutions to support their own international health programs and initiatives, helping to close the gap between training needs and resources.

6. *Increased networks and collaboration among international health professionals*. The structure of the LIHP facilitates interaction across disciplines, sectors, regions, languages, and cultures, enhancing learning as participants, tutors, and mentors share experiences, ideas, and best practices. Combined

TABLE 5. Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP) participants profile, 2008–2011

	2008		2009		2010		2011	
	No.	%	No.	%	No.	%	No.	%
Regional Cohort								
Sex								
Female	11	55.0	22	62.9	21	0.58	31	59.6
Male	9	45.0	13	37.1	15	0.42	21	40.4
Institutional affiliation[a]								
Ministry of Health (International cooperation/ international relations unit)	1	5.0	3	0.09	4	0.11	7	0.13
Ministry of Health/Social Security Institute (other)	8	40.0	17	0.49	20	0.55	28	0.54
Ministry of Foreign Affairs	—	0	1	0.03	—	0	—	0
Academia	4	20.0	8	0.23	9	0.25	12	0.23
Other ministries[b]	1	5.0	—	0	1	0.02	1	0.02
PAHO/WHO	3	15.0	4	0.11	3	0.08	6	0.12
Other international agencies	1	5.0	1	0.03	—	0	1	0.02
Non-governmental organizations	2	10.0	1	0.03	1	0.02	4	0.08
Educational background (undergraduate)[c]								
Medicine	10	50.0	18	0.51	20	0.55	30	0.58
International relations/law	—	0	3	0.03	1	0.02	1	0.02
Other health fields	7	35.0	8	0.23	7	0.19	14	0.27
Social sciences	3	15.0	6	0.17	4	0.11	3	0.06
Other (business, engineering, informatics)	—	0	1	0.03	3	0.08	5	0.10
Cuban Medical Brigades								
Sex								
Female	—	—	9	0.60	9	0.56	3	0.30
Male	—	—	6	0.40	7	0.44	7	0.70
Institutional affiliation[a]								
Ministry of Health (International cooperation/ international relations unit)	—	—	3	0.20	—	0	—	0
Ministry of Health/Social Security Institute (other)	—	—	10	0.67	16	100	9	0.90
Academia	—	—	2	0.13	—	0	1	0.10
Educational background (undergraduate)[c]								
Medicine	—	—	15	100.0	13	0.81	10	100.0
Other health fields	—	—	—	0	3	0.19	—	0

Source: Adapted from LIHP Program data by the authors.
[a] May exceed total since some participants have more than one institutional affiliation.
[b] Ministries: 2008, Economics; 2010, Finance; 2011, Parliament.
[c] May exceed total since some participants have more than one undergraduate degree.

with onsite moments (regionally and in-country), the Program promotes cohesion and integration among participants, tutors, mentors, coordinators, Representative Offices, and communities of practice. This collaboration has led to the establishment of a regional alumni network and Cuban Society for International Health, both of which interact with the academic network described previously. Beyond these more "formal" networks, the learning communities established within and outside of the Program continue to grow long after the Program is over, leading to and enriching other collaborations and further strengthening the leadership competencies of those involved.

7. *Contributions to conceptual development of international health*. The LIHP contributes to the development of international health both in theory and in practice through the real-life application of the conceptual model to country projects and national policies as well as ongoing discussions and workshops. In addition to leading to a more robust model, this has enabled participants to better understand the forces, competencies, actors, and interests associated with international health. Participants have also contributed to the dissemination of information on international health through publications and presentations at international conferences. The *Cuban Journal for International Public Health*, created as a result of the Program, devoted its inaugural issue to publications derived from the country projects of the 2009 cohort (46).

Lessons learned

1. *Balance between the theoretical and the practical*. The LIHP has shown that it is possible to balance theoretical constructs with practical application of the same. Nonetheless, it is a fine balance and care must be taken to ensure the Program does not become overly "academic" and retains its relevance to the national and regional context in which it operates.
2. *Collective development of learning*. The power—and empowerment—derived from collective learning processes are transformative and key in developing leadership capacity.
3. *Supportive networks*. Participants are supported in their learning by numerous individuals and institutions. This is essential given the amount of dedication required of the Program, coupled with the complexity of—and oftentimes unfamiliarity with—international health. The close collaboration with PAHO/WHO Representative Offices, together with the

TABLE 6. Leaders in International Health Program "Edmundo Granda Ugalde" (LIHP) country projects, 2008–2011

Topic	2008	2009	2010	2011	Total
International cooperation	1	4	4	10	19
Border health	2	1	4	—	7
Primary health care	—	2	4	1	7
Chronic diseases	—	1	2	3	6
Integration processes	—	—	2	3	5
Health system/reform	2	—	—	3	5
Violence/human security	1	—	2	2	5
Environment	—	2	2	1	5
Financial crisis	—	4	—	—	4
Human resources for health	—	4	—	—	4
Migration of health human resources	1	—	2	—	3
Migration	—	—	—	3	3
Nutrition	2	1	—	—	3
Access to medicines	1	1	1	—	3
Disasters	—	—	2	—	2
Indigenous health	—	1	—	1	2
International health training	—	1	—	—	1
Conditional monetary transfers	—	—	1	—	1
Health promoting universities	—	—	1	—	1
Research and human rights	—	1	—	—	1
Maternal and child health	—	1	—	—	1
Health of elderly	—	—	—	1	1
Mental health	—	—	—	1	1
Traditional medicine	—	—	—	1	1
Marketing to children	—	—	—	1	1
Total	10	24	27	31	92[a]

Source: adapted from LIHP Program data by the authors.
[a] Total number of projects is less than number of participants since many projects are by country teams.

establishment of subregional mentors in 2009, allows the LIHP to closely monitor the learning process, responding to challenges and concerns as they arise.

4. *Combining virtual and onsite learning*. The Program simultaneously combines both virtual and onsite learning elements. While participants interact virtually through the online platform, they concurrently engage in onsite activities with their country colleagues and others. In this manner, they can directly apply that which is conceived online to their country context and vice versa, contributing to individual and collective learning. While some have argued that training in international health necessitates being in another country (and there are obvious pros to this argument), the Program has shown that it is possible to develop competencies in international health *in situ*. However, this requires a careful balance between the theoretical/practical as well as reinforcement of the relationship between the global and the national or local. As the Program has matured, it has uncovered new ways of taking advantage of virtual learning processes, resulting in a decrease in the onsite component of the entire group.
5. *Adaptability to changing contexts*. It is essential for any program devoted to international health to be cognizant of the evolving global and regional context and able to adapt its content accordingly. The utilization of 360° evaluations throughout the year allows for flexibility and timely adjustments to the Program's structure and content, including the incorporation of online seminars on emerging issues, new modules, and topics.

Conclusion and recommendations

As a whole, the LIHP has demonstrated the ability to provide quality, bilingual, online training in international health to mid- and high-level professionals. An external evaluation conducted in 2010,[8] internal Program evaluations, and anecdotal evidence all show the Program to be effective in enhancing competencies in international health among professionals involved in health, development, and international relations. Nonetheless, it is recognized that the LIHP is still in its infancy and will require adjustments to ensure it meets the needs of the Region. Future considerations and recommendations include an impact evaluation, continued support for national and subregional efforts in international health training, continual discussions and enhancement of the conceptual model, increased consolidation of the academic and alumni networks, and further strengthening of the collaboration with PAHO/WHO Representative Offices and national and international institutions.

[8] Programa de Líderes en Salud Internacional "Edmundo Granda Ugalde": eds. 2008 and 2009. [Unpublished manuscript.]

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