

# Interprofessional Education in Health Care:

Improving Human Resource Capacity to  
Achieve Universal Health

*Report of the Meeting  
7-9 December 2016  
Bogotá, Colombia*



**Pan American  
Health  
Organization**



REGIONAL OFFICE FOR THE

**World Health  
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**Americas**

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We are very grateful to the following persons who helped coordinate and develop this document: Silvia Cassiani, Sabrina Mikael, Rossana Frías de Yaksic, and José Rodrigues Freire Filho.



# Executive Summary

The purpose of this three-day meeting was to convene representatives of the ministries of health, ministries of education, professional associations, and academic institutions from the countries of Latin America and the Caribbean to solicit input and stimulate discussion regarding the rationale, framework, and foundation for interprofessional education (IPE) and to understand different countries' experiences with IPE and collaborative practices.

The combination of different institutions, disciplines, and professional backgrounds enabled the participants to address key issues regarding IPE, such as:

1. The current state of health education and the role of IPE in transforming and scaling up health professionals' education and training;
2. The meaning of, strategies in, and approaches to IPE within the institutional context;
3. The opportunities, challenges, barriers, and facilitating factors for developing and implementing IPE curricula;
4. The opportunities and challenges for interprofessional faculty development within the institutional context;
5. Approaches to IPE and collaborative practice from multiple international perspectives;
6. Interprofessional health team management models and lessons learned from their implementation;
7. The impact of regulation of health professions in the context of collaborative practice;
8. The development and implementation of IPE in Latin America and the Caribbean;
9. Potential partnerships among and within countries to implement and develop IPE; and
10. The viability and impact of IPE in education and practice and opportunities for building the health care workforce of the future.

During the meeting, each participating country described its goals; 30-, 60-, and 90-day timelines for IPE implementation; and the resources needed to carry out its goals. In addition, strategies for developing partnerships with other IPE leaders across Latin America were identified.

Participants proposed the creation of a regional interprofessional education network and a follow-up of goals with the countries.





# Introduction

The Pan American Health Organization/World Health Organization (PAHO/WHO) provides support to the countries of the Region of the Americas to improve health outcomes through the strengthening of health systems. The Human Resources for Health Unit (HSS/HR) promotes and contributes to the Organization-wide effort to strengthen health workforce capacities to achieve universal access to health and universal health coverage in the countries of the Region.

Innovative approaches to develop programs and policies that bolster the global health workforce are needed. Interprofessional collaboration is an innovative strategy that holds promise in mitigating the global health workforce crisis. Collaborative practice in health care occurs when professionals with different backgrounds provide comprehensive, high-quality services by working with patients, their families, and communities across health care settings.

Interprofessional health care teams optimize the skills of their members to provide holistic, patient-centered, and high-quality health services. In this regard, interprofessional education (IPE) is necessary to prepare the health workforce to engage in collaborative efforts and respond to local health needs in a dynamic environment. Thus, IPE is an important strategy that improves human resources for health capacities and outcomes and ultimately strengthens health systems.

PAHO/WHO has developed a regional strategy on human resources for health within the framework of the Global Strategy on Human Resources for Health: Workforce 2030 (1). According to WHO, the widespread adoption of IPE is urgently needed, and it recommends that educational institutions adapt their organizational structures and teaching modalities to promote IPE and collaborative practice.

The purpose of this three-day meeting was to convene representatives of the ministries of health, ministries of education, professional associations, and academic institutions from the countries of Latin America and the Caribbean (LAC) to:

1. Solicit input and stimulate discussion regarding the rationale, framework, and foundation for IPE;
2. Understand different countries' experiences with IPE and collaborative practice;
3. Identify IPE challenges, barriers, and facilitators that exist at the education, practice, and policy levels; and
4. Form a technical group with interested participants from the event who will be responsible for implementing proposed activities to increase IPE in LAC.

This event brought together a group of experts that included health education specialists, senior academics and persons responsible for governance of educational institutions, policymakers, government officials, and experts in health systems, international health, and health and education. The combination of different institutions, disciplines, and professional backgrounds enabled the participants to address key issues regarding IPE, such as:

1. The current state of health education and the role of IPE in transforming and scaling up health professionals' education and training;
2. The meaning of, strategies in, and approaches to IPE within the institutional context;
3. The opportunities, challenges, barriers, and facilitating factors for developing and implementing IPE curricula;
4. The opportunities and challenges for interprofessional faculty development within the institutional context;
5. Approaches to IPE and collaborative practice from multiple international perspectives;



6. Interprofessional health team management models and lessons learned from their implementation;
7. The impact of regulation of health professions in the context of collaborative practice;
8. The development and implementation of IPE in Latin America and the Caribbean;
9. Potential partnerships among and within countries to implement and develop IPE; and
10. The viability and impact of IPE in education and practice and opportunities for building the health care workforce of the future.

The meeting outcomes were very positive, and the participants were keen to collaborate and meet objectives. The purpose of this report is to share the meeting's discussions and recommendations and provide support to ongoing implementation of IPE programs and policies in Latin America and the Caribbean.



# DAY 1: PROCEEDINGS





# Day 1: Proceedings

The meeting began with welcome and introductory remarks that set the context for the discussions. The first day's proceedings focused on the rationale, framework, and foundation for IPE; interprofessional faculty development; the design and implementation of IPE curricula; and transformation and scale-up of health professionals' education and training. Presentations were followed by group work and discussions. The meeting was facilitated by Silvia Cassiani, Regional Advisor on Nursing and Allied Health Personnel, PAHO/WHO; Sabrina Mikael, International Consultant on Human Resources for Health, PAHO/WHO; Brenda Zierler, Director of Research and Training, University of Washington Center for Health Sciences Interprofessional Education, Research, and Practice; and Mayumi Willgerodt, Professor at the University of Washington School of Nursing.

## Opening Session

*Dr. James Fitzgerald, Director, Department of Health Systems and Services, PAHO/WHO*

*Dr. Laura Ramirez, Health Systems and Services National Consultant, PAHO/WHO Colombia*

*Dr. Silvia Cassiani, Regional Advisor on Nursing and Allied Health Personnel, PAHO/WHO*

Dr. Fitzgerald greeted the participants and thanked them for attending the conference. He stated that the meeting was a result of a long process that PAHO/WHO has been developing over the past few years to provide solutions toward universal health in the Americas. According to Dr. Fitzgerald, the movement toward universal health in the Region of the Americas started in 2013 with efforts to understand the meaning of universal health coverage.

These efforts included a consultation with approximately 1,500 experts, health professionals, and government official from ministries of health and education. The consultation concluded that, in the Region of the Americas, the concept of coverage should be emphasized through the right to health and from the perspective of equity and solidarity, which are strongly present in the Region. Although countries understood that coverage is important, its mechanisms to ensure service access and financing are insufficient. Therefore, it was agreed that countries in the Americas need to focus on improving access to equitable, comprehensive, and quality health services, leading to the adoption of the Strategy for Universal Access to Health and Universal Health Coverage (2).

Since the adoption of the strategy, important advances and improvements have been achieved in health systems reform and equitable access to health services. However, one of the main barriers to this progressive movement in all countries is the *availability* of human resources qualified to work in the context of the country's care models and needs.





This availability relates to adequate and qualified human resources that are being developed to achieve and deliver universal health, including doctors, nurses, pharmacists, technical professionals, lab technicians, and managers—all of whom are necessary to ensure that health systems have the ability to advance toward universal health.

The concepts of health standards are not exclusively based on services; rather, they are based on the entire set of decisions, people, and entities that shape services and the well-being of individuals. This includes promotion, prevention, diagnosis and treatment, and the planning of service networks focused on people and integrated in communities.

Provision of comprehensive care requires more than a doctor, a nurse, and a pharmacist. It requires health teams to work together to ensure access to equitable and high-quality health services. Therefore, country experiences need to be discussed to support the definition of IPE best practices and the future of health professionals' education in the Region.

Dr. Laura Ramírez stated the importance of the meeting in contributing to the creation of more resilient health systems through the powerful tool of IPE, which will provide local health teams with the competencies required by the integral care models being developed in several countries of the Region. Dr. Silvia Cassiani greeted the participants, thanked the organizers, and gave a brief overview of the day.

## Introduction

*Dr. Azita Emami, Dean, University of Washington School of Nursing*

Dr. Azita Emami provided a welcome address in which she validated WHO's definition of IPE as an approach to teaching and learning that brings together students in two or more professions to learn about, with, and from each other. The University of Washington has long been a champion of IPE, and over the years it has developed valuable teaching resources and expertise. Although each organization may define IPE slightly differently, we all have the same overall vision and commitment to improve health outcomes; there are many outstanding health care models around the world and in Latin America that can inform us about best practices in IPE.

Nurses are central to IPE given that they are at the core of patient care. They advance education and training through research and are leaders in health care delivery. In 2015, the University of Washington enrolled more than 600 nursing students at the undergraduate and graduate levels and awarded 60 doctorates. It is considered one of the leading research-intensive nursing schools in the United States and has shown an increasing interest in global health. This is in part due to its emphasis on IPE and collaborations in interdisciplinary research. In addition, the university's leadership—in particular President Ana Mari Cauce—has made an explicit commitment to population health and health equity.

Although health equity will take a long time to achieve, evidence indicates that we are moving in the right direction. Good interprofessional community-based health care delivery is part of that story. IPE enhances professionals' ability to work more effectively together as equitable partners with a shared vision, mutual respect, and a solid commitment to accessible, affordable, high-quality health care. With a commitment to

IPE, we can achieve better health outcomes with lower costs and have a greater impact on wellness and on disease and illness prevention. Interprofessional clinical practice, education, and research enable us to prepare the next generation of health professional teams.

## Rationale for Interprofessional Education

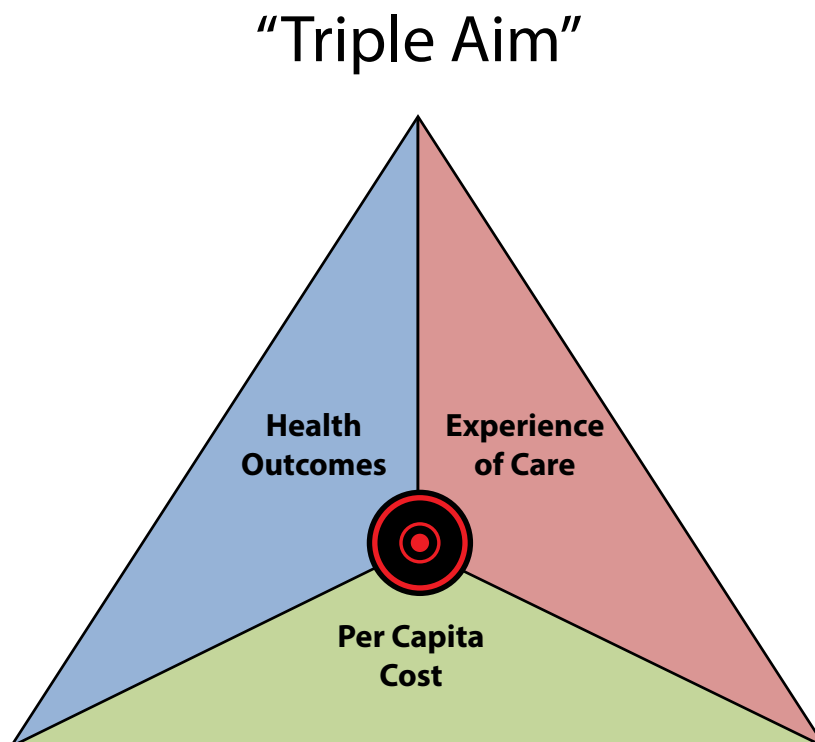
*Dr. Malcolm Cox, Adjunct Professor of Medicine, University of Pennsylvania; Co-Chair, Global Forum on Innovation in Health Professions Education, U.S. National Academies of Sciences, Engineering, and Medicine*

Objective 1: Define and describe IPE and its relationship to team-based collaborative care

Objective 2: Review the evidence for the effectiveness of IPE in enhancing patient and population health outcomes

Dr. Cox's presentation was focused on identifying and describing theoretical and practical key elements of IPE. He began by discussing the importance of vision when thinking about care transformation and changing institutions and educational ministries. Without the right vision, one cannot achieve one's goal. Vision is about the well-being of individuals, communities, and populations and can be measured in the context of the Triple Aim: health outcomes, the experience of care, and capital cost. We now reference the Quadruple Aim, which adds the experiences of the professional delivering health care.

**Figure 1 – Triple Aim**



Vision and strategy are important in achieving the Quadruple Aim. This involves the alignment of education with individual and population needs, including aligning respective structures, transforming the clinical workforce—relative to not only future generations but the existing workforce—and improving learning environments in clinical settings. To do this, a renewed sense of professionalism, continuity of meaningful relationships, and professional collaboration are needed.

The requirements for IPE are:

1. **Culture and leadership:** It is the job of leadership to promote collaboration and address uncertainty.
2. **Learning modalities and domains:** The traditional approach is thinking one's way into new action: gaining knowledge, putting it all together, and then acting. But another, more important way of learning is "acting one's way into new thinking," wherein one acts and learns along the way. This is critical because the environment that needs to be built is in the workplace, not exclusively the classroom. People in different areas of expertise must learn from each other and work with each other. In addition, workplace learning needs to be distributive; team leadership should be determined by the problem at hand, not by hierarchy. The learning domains—formal instruction, workplace learning, and reflective practice—add complexity. These domains need to be brought together to achieve the goal.



3. **System alignment:** Purposeful and comprehensive engagement between the education and health care delivery systems is needed to evaluate the impact of IPE interventions.
4. **Conceptual models:** Comprehensive, systems-based conceptual models that provide a consistent taxonomy and framework for strengthening the evidence base connecting IPE and both learning and health outcomes are needed. The evidence related to learning outcomes must move beyond attitudes and satisfaction and focus on change and health/systems outcomes. The Institute of Medicine (IOM) Interprofessional Learning Continuum Model incorporates the entire learning continuum (3).
5. **Return on investment:** The existing data support positive learning outcomes and focus on short-term outcomes. The extant literature has shortcomings—namely significant methodological weaknesses and limited evidence for higher level outcomes such as those involving behaviors, population benefits, and systems. There is a need to focus on adding to the evidence and research in these areas of shortcomings.

## Framework for Interprofessional Education and Collaboration Nationally, Regionally, and Globally

*Dr. John Gilbert, Professor Emeritus, University of British Columbia; Adjunct Professor, Dalhousie University; Founding Chair, Canadian Interprofessional Health Collaborative*

Objective 1: Discuss how IPE can be designed to produce a global health workforce prepared for collaborative practice and policy barriers that affect IPE

Objective 2: Describe the WHO Framework for Action on Interprofessional Education and Collaborative Practice, provide examples of where it has been implemented, and discuss how policy barriers can affect IPE

Dr. Gilbert structured his talk as eight frameworks for successful IPE and interprofessional collaborative practice (IPCP). There are a set of common principles for successful collaborative practice around which we must build IPE for collaborative patient-centered practice. They are:

1. Clear work plans with measurable goals.
2. Evaluation plan: there must be a clear notion of how to measure outcomes effectively to justify the work. Also, the return on investment in collaborative practice initiatives must be evaluated.
3. Funding that is equitable and accountable: funding must be equitable across professions. If not, the level of engagement by professions will vary, which will severely impact the ability of the professions to work together.
4. Explicit commitment to collaboration from all parties.
5. Physical space and administrative support for IPE.

The outline of strategies for success is as follows:

1. Create a workforce strategy at the government, institutional, and organizational levels through promotion of IPE.
2. Seek out innovative partnerships.
3. Generate new knowledge, exchanges, and applications of IPE across all constituencies and disseminate these elements through different mechanisms.
4. Share responsibility for IPE across professionals and agencies.

Furthermore, at the institutional level, there are working cultural and environmental elements and institutional support mechanisms that are critical in implementing collaborative practice projects. Working cultural elements include effective communication strategies, conflict resolution, and shared decision making, while examples of environmental elements are physical space and built environments. Governance models, structured protocols, shared operating resources, personnel policies, and supportive management practices are institutional support mechanisms that are important for long-term success.

Identified procedures to aid in achieving IPE objectives are facilitating connections between stakeholders and nurturing relationships, focusing the work with appropriate and relevant groups, establishing networks to support multi-site research, and utilizing frameworks, particularly competency frameworks, to guide the building of collaborative practice structures. The creation of active social networks that align with how contemporary students communicate and support student-run organizations is also encouraged.

Interprofessional practice and policy must also include practice partners. It is important that the practice community be engaged, encouraged, and rewarded for collaborative practice. A wide range of interprofessional activities should be prioritized to support diversity of interests. A clear action plan for collaborative practice must be implemented for long-term sustainability, and deliberate and intentional “homes” for collaborative programs should be selected as model collaborative practice sites.

To achieve these aims, a consensus around a global definition of IPE, a common set of principles, and a core set of competencies to support a shared mental model of collaborative practice must be adopted and developed. Furthermore, a strong research program must be fostered, and IPE and collaborative practice must be built into accreditation programs. Curricular issues (program content, attendance, learning methods) and educator issues (faculty development, “champions”) must also be addressed for successful implementation of IPE.

Dr. Gilbert closed by stating that, moving forward, governments must recognize the importance and support implementation of meaningful IPE policies; IPE offerings and projects should occur in the workplace; quality improvement initiatives that focus on enhancing IPE and collaborative practice should be supported; and students and practitioners must share and mentor each other with respect to IPE and interprofessional collaborative practice. Also, interprofessional leadership development, interprofessional communication, patient safety, and health service delivery must continue to be supported.

## Foundation for Interprofessional Education: Individual and Institutional Attributes, Resources, and Commitments Supporting Team Science

*Dr. Mayumi Willgerodt, Professor, Department of Family and Child Nursing, School of Nursing, University of Washington*

Objective 1: Discuss the institutional resources and strategies needed to support IPE implementation, development, and evaluation

Objective 2: Identify individual, institutional, and policy barriers that need to be overcome for sustaining IPE

During her talk, Dr. Willgerodt identified concrete institutional resources and strategies for successful IPE, as well as facilitators and barriers, drawing upon the University of Washington's experience. Successful IPE begins with a common vision and the commitment and recognition of key stakeholders. The institutional-related characteristics (and concomitant resources) necessary for successful IPE include:

- clear commitment from leadership;
- a centralized organizing and coordinating body or administrative home for IPE;
- support for faculty development;
- recognition of the workload associated with IPE; and
- organizational flexibility.



At the individual level, faculty must have a clear understanding of what IPE is and is not, be committed to advocating for IPE, be authentic in supporting IPE efforts and connecting IPE to meaningful practice, and be flexible and willing to work across professions equitably.

Strategies for overcoming common IPE barriers include:

- aligning curricula to IPE competencies;
- utilizing technology, particularly for professions that are not co-located;
- integrating IPE into the existing curriculum instead of adding curricula; and
- supporting interprofessional collaborative initiatives led by students and others.

To be successful and sustained, IPE efforts must initially occur within the climate and culture of the institution while slowly effecting change. IPE goals must align with institutional goals, and “champions” should engage both formal and informal leaders in advocating for IPE. Dr. Willgerodt stressed the importance of incorporating rigorous evaluation methods to demonstrate the value of IPE in supporting collaborative practice. Also, she encouraged individuals who are developing IPE to showcase their successes to raise awareness across sectors about IPE and collaborative practice.

## Interprofessional Faculty Development

*Dr. Brenda Zierler, Professor, Department of Biobehavioral Nursing and Health Informatics, University of Washington School of Nursing; Director of Research and Training, University of Washington Center for Health Sciences Interprofessional Education, Research, and Practice*

Objective 1: Discuss and identify the necessary skill set for teaching in an IPE environment and the individual and institutional barriers that affect IPE

Objective 2: Discuss approaches for preparing health professions faculty and collaborative practice clinicians to lead IPE efforts and promote interprofessional team-based care

Dr. Zierler provided the rationale for why faculty should be developed as IPE facilitators. Examples given included that faculty come to IPE activities unprepared, without knowledge of scope of practice or of other professions (different than their own), and have a poor conceptual understanding of core IPE competencies. When faculty members are unprepared, they miss teachable moments. In addition, if the only interaction with faculty prior to an IPE activity is “just-in-time” training (one hour prior to the event), the training typically focuses on the logistics of the activity and not the content or rationale for the training.

Facilitation challenges identified were cultural issues, lack of understanding around professional learning requirements (outside of one’s own background), and knowing when to intervene with students to lead interprofessional learning versus allowing students to direct their own learning. Facilitating interprofessional teams of students is different than facilitating “uniprofessional” teams, and purposeful training is needed.

Necessary facilitation-related skills include the ability to manage tension and the ability to resolve conflicts in communications among students and faculty. Furthermore, if facilitation is to be meaningful, cases used in discussions must be realistic and relevant to all health professions students invited. The reason to start

with faculty development is to address stereotyping related to professional roles, demographics, and cultural differences that affect health professions. An example of a strategy was demonstrated using a game called Pictionary, where group members draw professionals based on a description of where they would work, the length of their training program, and their scope of practice. Drawing pictures of professionals from health disciplines visually illustrates biases and stereotypes.

Design principles for faculty development programs were outlined and included the following: integrating efforts into the real work in which faculty members are engaged, using active learning, spending time to build relationships, tracking a few meaningful outcomes, aligning incentives, and celebrating successes while learning from failures. Approaches utilized included case-based workshops, team-based bedside rounding, team-building exercises, peer coaching and mentoring, web-based learning, longitudinal training programs, and creation of communities in practice. Dr. Zierler concluded that there are multiple phases in developing faculty to lead IPE:

- Phase 1: Engage the faculty;
- Phase 2: Train faculty to facilitate interprofessional learning; and
- Phase 3: Mentor for IPE leadership.





## Designing and Implementing an Interprofessional Education Curriculum

*Dr. Malcolm Cox, Adjunct Professor of Medicine, University of Pennsylvania; Co-Chair, Global Forum on Innovation in Health Professions Education, U.S. National Academies of Sciences, Engineering, and Medicine*

*Dr. Brenda Zierler, Professor, Department of Biobehavioral Nursing and Health Informatics, University of Washington School of Nursing; Director of Research and Training, University of Washington Center for Health Sciences Interprofessional Education, Research, and Practice*

Objective 1: Examine an IPE conceptual model that encompasses the education-to-practice continuum

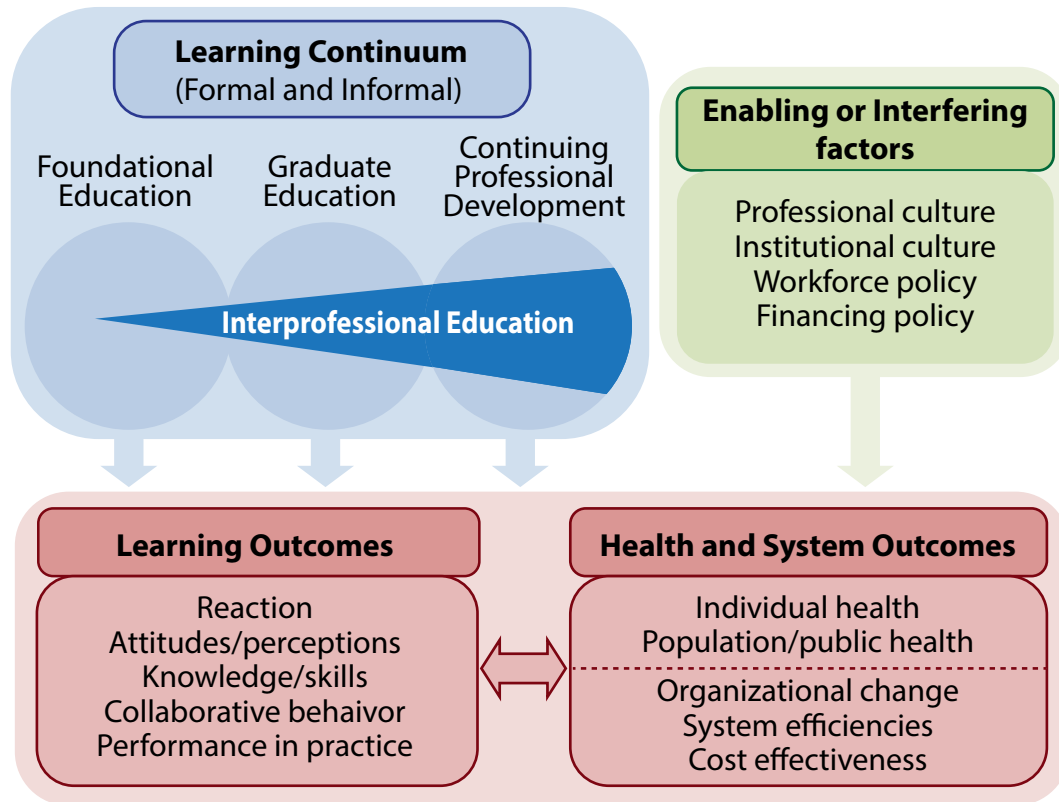
Objective 2: Discuss an IPE conceptual framework that describes the intersections of IPE with foundational, undergraduate, and graduate education and continuing professional development

Participants were encouraged to learn from others and not to “reinvent the wheel.” IPE has been in existence for more than 50 years in the United States and elsewhere, and much is known about what is and is not successful. The core principles of IPE discussed suggested that IPE curricula be co-created by the professions engaged in the training. In addition, faculty should be encouraged to utilize only authentic and relevant cases, such as real “scrubbed” cases from their hospital system that focus on a safety or quality issue related to teamwork. IPE competencies are intended for collaborative practice and should not be “IPE for IPE’s sake.” The purpose of this statement was to make sure that participants address the real issue, which is how health care teams function in practice.

The 3 Ws (“who,” “what,” and “when”) for developing IPE curricula or events, along with “how” and mapping elements, are as follows:

- Who: case writing team that includes representative faculty to engage in co-creation activities
- What: IPE course, activity, module, or event
- When: logistics and scheduling, levels of students/learners
- How: in-person, online, hybrid, joint clinical or community placements
- Mapping IPE competency domains to learning outcomes

A conceptual framework is needed to guide the development of and evaluate IPE curricula. The Institute of Medicine Interprofessional Learning Continuum Model was presented as such a framework (Figure 2). The learning continuum was highlighted, possible learning outcomes were addressed, and enabling and interfering factors (e.g., professional culture) and possible health and systems outcomes related to interprofessional collaborative practice were identified.

**Figure 2 – Interprofessional Learning Continuum Model**

*Note: Reprinted with permission from the National Academy of Sciences, courtesy of the National Academies Press (3).*

The importance of having a conceptual framework to drive the work that needs to be completed and evaluated was repeated and stressed. A few examples were provided of training in practice settings using Primary Care Centers of Excellence, which exist at five Veterans Administration Medical Centers in the United States, to demonstrate interprofessional collaborative practice. Participants were encouraged to review this model and to make sure that they could identify the level of the learner, both formally and informally, as well as learning outcomes and health and systems outcomes.

Resources were offered and linkages were provided to the United States National Center for Interprofessional Practice and Education (<http://nexus.org/>), followed by suggestions of landmines to avoid, such as inequities in faculty workload and support, siloing of IPE, inauthentic cases, use of language that is exclusive or specific to one profession, intellectual property issues, team scholarship, and the need for faculty facilitators purposefully trained as interprofessional facilitators.

## Transforming and Scaling Up Health Professionals' Education and Training

*Dr. Erica Wheeler, Advisor, Human Resources for Health, PAHO's Sub Regional Programme Coordination, Barbados*

Objective 1: Briefly discuss the current state of health education globally and the specificities of the Region of the Americas

Objective 2: Discuss the vision for transformative education and recommendations to transform and scale up health professionals' education and training

Dr. Erica Wheeler described the context surrounding WHO's policy recommendations on transformative education globally. The call for scaling up the education of health professionals began in 2006, but it was not until 2013 that a formal resolution (Resolution 66.23) (4) was passed that recommended the transformation of health workforce education in support of universal health coverage.

To transform the workforce, one must consider the pipeline and pool producing future health workers; social determinants of health and how they interact with the health care workforce; and leveraging technology to support and enable the health care workforce—all of which contribute to strengthening the health system. Training and scaling up health professionals' education and training is about increasing the quantity, quality, and relevance of health professionals to meet population health needs and improve population health outcomes.

Key policy issues center around the following:

- governance and planning;
- financing and sustainability;
- education and training institutions;
- planning, implementation, and evaluation; and
- accreditation and regulation.

Specific recommendations for transformative education include:

- faculty development (three recommendations around faculty development because of its importance);
- curriculum development;
- simulation methods;
- direct entry of graduates;
- admission procedures;
- streamlined educational pathways and ladder programs;

- interprofessional education;
- accreditation; and
- continuous professional development of health professionals.

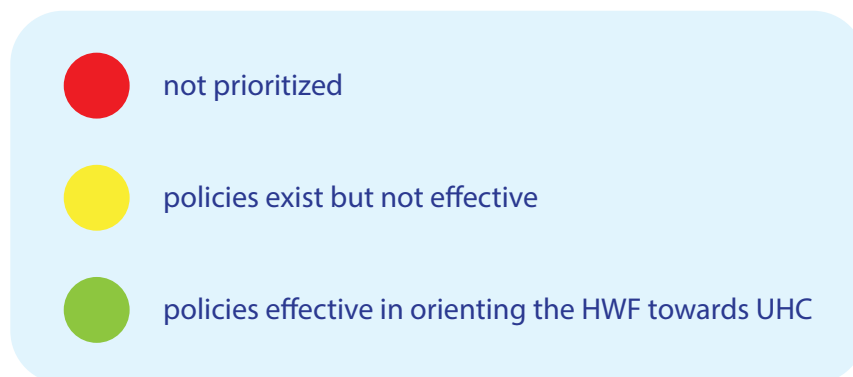
The process of identifying key areas for consideration in evaluating transformative education was described. Multiple discussions with key stakeholders resulted in defined areas of measurement to evaluate transformative education. The following six areas are nested within quantity, quality, relevance, and sustainability and are critical in assessing progress toward transformative education:

- curriculum and community
- student selection
- career and retention
- faculty development
- lifelong learning
- governance and planning

Technology utilization is another important area to assess to determine whether there is sufficient access to learning platforms. Within the six areas just outlined, common themes were identified that formed the basis for specific measurement items. Progress is measured using traffic light colors (red, yellow, green). An example of a policy-level indicator is shown below.

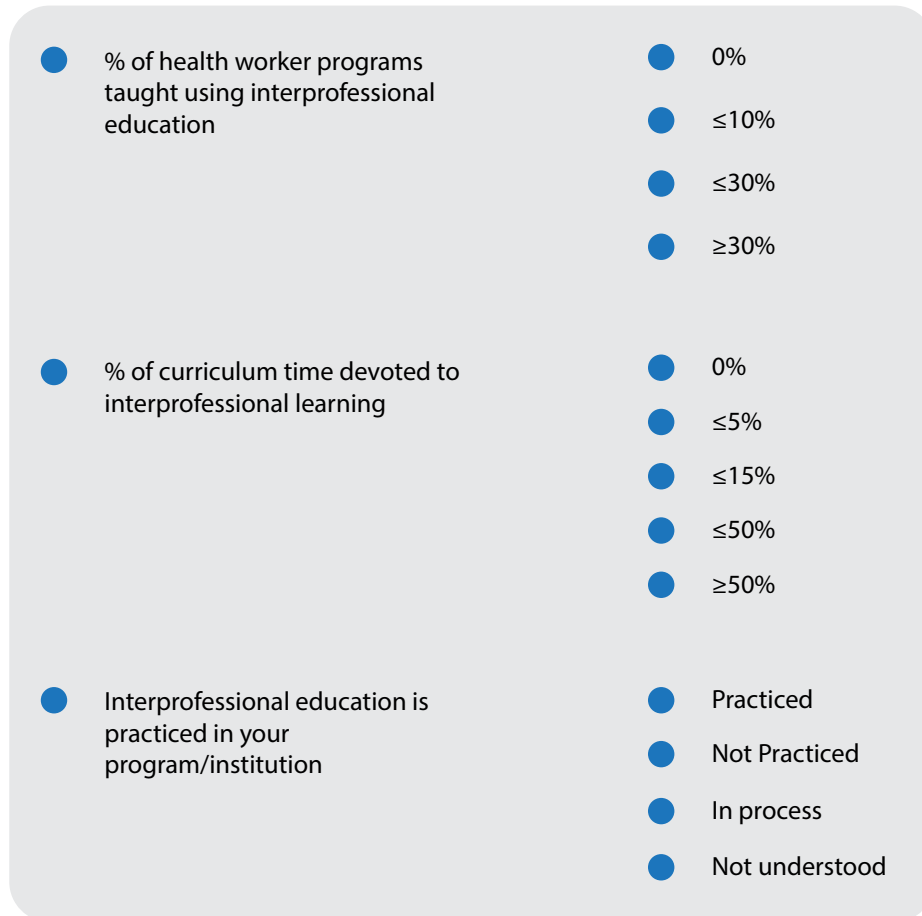
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**Figure 3 – Policy-level Indicator: A National and Local Policy Environment that Prioritizes and Produces an Adequate Number of HWF Cadres to Deliver UHC (WHO threshold of 2.28 per 1,000 population)**



Similarly, an example of an institution-level indicator is as follows.

**Figure 4 - Institution-level Indicator**



# DAY 2: PROCEEDINGS





# Day 2: Proceedings

The second day's proceedings focused on country experiences of IPE, regulation of health professionals' practice, implications for interprofessional collaborative practice, and interprofessional health team management. Presentations were followed by group work and discussions.

## Argentina: Interprofessional Education and Collaborative Practice

*Dr. Larisa Carrera, Dean, School of Medical Sciences, Universidad Nacional del Litoral*

Objective 1: Discuss the current state and policies supporting and hindering IPE in Argentina

Objective 2: Describe the positive and negative lessons learned from establishing IPE and collaborative practice in Argentina

Dr. Larisa Carrera provided practical IPE experiences and their respective positive and negative aspects. She discussed Argentina's Resolution 1314/07, which focuses on the medical career accreditation standards of the country's Ministry of Education and according to which the National Commission for the Evaluation and Accreditation of Universities carries out the process of accreditation of medical careers. She highlighted the importance of this resolution and how it relates to the development of competencies for current physicians and future opportunities to integrate IPE competencies into practice.

Since 2007, the accreditation standards for medical careers have been aimed at the development of competencies. Within its recommendations, Resolution 1314/07 establishes the development of practical activities in hospitals and in settings other than hospitals. These practices are congruent with the profile of doctors sought in Argentina, doctors oriented to the strategy of primary health care, which since 1999 has been agreed upon among all medical schools through a previous resolution.

Among other competencies, doctors are expected to develop two dimensions: valuing the skills and competencies of other health professions and acting as part of a team. The intervention of other health professionals is also expected, to achieve proper diagnosis and treatment through an interdisciplinary approach.

Among the recommendations, a key aspect is the development of pre-professional practices integrated with other health professionals. Thus, the country's resolutions promote interprofessional education, and the accreditation process is an interesting opportunity to ensure that IPE focused on interprofessional teamwork is implemented.



In 2015, a process of elaboration of standards for accreditation of nursing careers was initiated. Nursing and medicine are the only two professional careers currently in the process of accreditation.

Interprofessional education requires collaboration across sectors. In the province of Santa Fé, this work is performed within an intersectoral committee composed of the health department of the province, two professional associations, two medical schools, and the health secretariats of Santa Fé and Rosario, the two most important cities according to number of inhabitants. This intersectoral committee facilitates the development of experiential education and allows for discussions regarding the challenges of addressing the availability of human resources for health. The process of collaboration resulted in a desire to create spaces where people can share experiences.

The Argentine Forum of Public Medical Schools holds annual congresses where these discussions now occur and are creating opportunities for IPE development. Some topics discussed are profiles of medical doctors required according to the country's needs, types of postgraduate training necessary, types of medical residences that should be prioritized, university extension activities, and experiential practices, all of which can contribute to interprofessional education and the establishment of collaborative health teams.

The demand for integration and interactions among health students was identified through these spaces for discussion so that the students can learn about and respect other professions and know each other's role in tackling health problems. This demand was the starting point for the development of interprofessional education activities.



The next steps were to identify the best opportunities within the curriculum in which IPE could be developed and to recognize transversal competencies in the health care team. Fifty percent of the public medical schools in Argentina include innovative curricular approaches that provide greater flexibility and facilitate the inclusion of IPE.

As a result of this analysis, themes or issues that were common to students in the nursing technician course and in medical schools were identified. Examples include knowledge related to social determinants of health and techniques for measuring vital signs such as blood pressure and heart rate. In addition, in work with the neighboring city of Rincón, health agents and city employees developed practices and divided the different territories. These jointly designed practices allowed students to participate in training sessions together at the nursing school, to carry out the activities in the community together, and to reflect on the practice together.

Taking advantage of all of these spaces in which students were working together, surveys were conducted to understand barriers and facilitators encountered. The most common challenge identified (mentioned by 38.75% of students) involved IPE organizational aspects. The second most identified challenge was difficulty in working as part of a team (21%). The identified strengths were teamwork, good coordination, and willingness of the parties to work together (53.45%). Approximately 90% of the students stated that they felt good, enjoyed the activity, and felt useful. Students also stated that they learned to work together as a team (41.44%) and were able to observe other professional realities (36.18%).

The conclusion was that, notwithstanding difficulties, it is worth trying these practices. Even though intersectoral work requires a great deal of time and dialogue and many days of work, it generates interesting



experiences. Administrative and organizational processes often lead to failure to implement these types of activities; therefore, attention needs to be given to these issues so that experiences can be sustainable over time.

An example of these activities was a medical emergency simulation in which graduate and postgraduate medical students and nursing students participated, along with many other professionals—emergency technicians, firefighters, police officers—supported by the city’s emergency service and secretary of security. Students learned about evacuation of victims, team provision of comprehensive care, and the saving of victims from inside cars exposed to high-voltage cables. Firefighters practiced fuel evacuation (the simulation included a fuel spillage situation), and an ambulance and other rescue vehicles were also used in the simulation.

This type of simulation is carried out three times per year, and volunteers also participate as actors. No special funds are assigned; all of the activity components are possible due to the collective effort of the parties involved. The activities are filmed, and a debriefing is performed with students in groups to reflect on what went well and what could have gone better.

## Spain: Public Health and Interprofessional Education

*Juan Jose Beunza, Director, Interprofessional Collaboration and Practice Program, School of Biomedical Sciences and Health, Universidad Europea*

Objective 1: Discuss the vision and goals for integrating IPE into the public health sector to address health outcomes

Objective 2: Describe the benefits of and challenges for public health in adopting IPE

Dr. Juan Jose Beunza started out by describing Spain’s epidemiological situation in which elderly patients admitted to health facilities with noncommunicable chronic diseases are increasing and impacting health system demand. Furthermore, health professionals are becoming “infocated”—intoxicated with information. This situation influenced the adoption of hyper-specialization to assimilate all of the information currently available. However, hyper-specialization imposes danger on the elderly populations diagnosed with polypathology. Hyper-specialization leads to a number of medical errors occurring in various-sized hospitals and services in Spain. A study showed that one in 10 patients admitted to hospitals in Spain suffer from a medical error, which means that it is much more dangerous to enter a Spanish hospital than to travel by plane.

Spain has historically provided universal health care coverage for its population, including registered and non-registered citizens. Treatments, medications, and procedures were free in Spain until the recession. Since 2012, non-registered foreigners no longer receive care, and there is now a 10% drug cost and an income tax between 40% and 60%. In addition, the retirement age is now 67 instead of 65.

The population of Spain is approximately 47 million, with 616,232 health professionals. Nurses (who number 250,139) account for a majority of the workforce, and the second most common profession is medicine (213,977). Approximately 18% of the population in Spain is greater than 65 years of age, while 45% of residents are between 25 and 54 years of age. Data on the status of Spain’s economy made the case for the potential impact of IPE in a society that needs access to affordable and safe team-based care.

A study conducted in Spain and published in 2014 (5) on the economic impact of IPE concluded that there was not enough evidence to support the assumption that IPE promptly reduces spending, although it is believed that in the long term it is beneficial (5). The current health system is changing, and as a consequence professionals working in those settings also need to change. In Spain, IPE is seen as a priority because the health system is being reformed and professionals are not receiving enough support to adapt to this new situation.

Traditionally, especially in large hospitals, the structure was very hierarchical. Doctors were the head of the service, the ones who determined orders, and they were very happy to work as part of a team as long as their orders were obeyed. However, because of the need to change the system, work is currently organized as a matrix, especially in primary and home care, in which the doctor is not the only one to visit the patient. Now nurses and psychologists participate in the visit so that the team is able to communicate and consider each other's contributions to patient care. The roles of health professionals are changing, and they must adapt to those changes.

A problem within the health system in Spain is that medical doctors must be involved in every decision, but there is not sufficient funding to pay all of the medical doctors required to support elderly, chronic, and polypathological patients. Therefore, it is believed that if the authority model is changed, there will be a more fluid flow of patients in the health system.



In this sense, nurses in Spain are starting to prescribe medicines. An example of a situation in which this would be beneficial is during an influenza epidemic, since nurses can assist a large volume of patients. However, such attempts have encountered great resistance from medical associations. The health system in Spain is changing, and thus it is important that medical doctors take part in leading this change instead of opposing it.

Another initiative mentioned was the first Spanish meeting on IPE, “I Jornadas Nacionales de Educación Interprofesional,” in which 100 representatives from government, universities, and hospitals discussed the needs of the health system, the possibilities in the education system, and approaches for the future. As a result of this meeting, an interprofessional network was organized to provide all involved persons with a channel through which they can communicate with each other, learn among themselves, and develop coordinated IPE.

Key elements for a successful IPE program were also discussed. The first key element is that the program should be based on the needs of the health system. The second element is learning from what others are already doing. The third key element is that the plan is adaptable to the means available in the institutions or hospitals where activities are going to be carried out; if the plan is not realistic, it will not be sustainable. The fourth element relates to the identification of a champion, a leader who is capable and has knowledge to direct the program. The fifth key element is that if IPE is to be sustainable, it needs to be integrated into the curriculum. The sixth element concerns taking small steps to implement the plan, eliminating what does not work and strengthening what does work, instead of launching a huge program at once. The seventh element is related to exposure and immersion, with students being involved in simulation activities in a safe environment that promotes development of competencies.



# Chile: Interprofessional Education in Health Sciences Education

*Eduardo Tobar Almonacid, Academic Director, School of Medicine, Universidad de Chile*

Objective 1: Discuss the implementation and current state of IPE in Chile

Objective 2: Describe the benefits of and challenges in adopting IPE

Dr. Eduardo Tobar Almonacid presented an update of IPE in Chile, describing the country's experiences with IPE to date. There is a great deal of diversity in Chile's institutions of higher education, and the country has recently begun considering changes in how education is funded and regulated. Accreditation regulates multiple aspects of health professionals' education but does not incorporate IPE.

In 2006, the University of Chile started to carry out curricular innovations toward a student-centered and competency-based model. For that reason egress profile surveys were conducted, and the need to generate areas of interprofessional training became evident. The egress profiles formulated for health careers included, as part of the competencies, effective work as part of a health team in scenarios of complexity and diverse contexts. By including this in the profiles, the university made the incorporation of IPE mandatory across careers in a standardized way. However, this process was created only for that single university, and most institutions of higher education in Chile do not incorporate teamwork so manifestly in their egress profile.

Given the changes implemented, since 2010 the University of Chile has offered Multiple Interprofessional Integrated Modules (MIMs), which consist of two mandatory blended courses (four and five credits, respectively) with a total of 54 face-to-face hours and 45 non-face-to-face hours that are incorporated into all of the different health curricula. The modules include face-to-face activities and tutorials, and an electronic platform is used for the integration of simulated cases.

There were many strengths and challenges associated with the modules, including the ability to integrate interprofessional faculty and positive student experiences and evaluations. Examples of strengths described by students are as follows:

- MIMs' main strength is teamwork, since they create the need to discuss and include all opinions to formulate a team hypothesis.
- MIMs are considered a space to integrate knowledge and work with careers in other areas in a virtual environment.
- MIMs allow for the inclusion of different perspectives on how to approach a case.
- The questions of the simulated patient allow students to relate the clinical case with the basic knowledge acquired, further developing competencies.
- MIMs allow students to work in a team and apply knowledge while performing activities closely aligned with their professional future.

- The modality of simulation of patients and medical equipment makes this educational activity more dynamic.
- MIMs provide freedom of study hours, and tutors are willing to assist with student doubts.

Students also described the following MIM weaknesses:

- The semester in which the modules take place is the same in which students are doing their clinical rotations; consequently, students feel it would be more advantageous if these two activities did not happen during the same semester.
- Not all students have the same available amount of time to formulate their responses to discussed cases, hindering both performance and evaluations and generating conflicts.
- The methodology used is not the most appropriate for students who have already had contact with real patients, since this previous experience makes interaction with the simulated patient difficult.
- Coordinating times for those in different health careers to attend face-to-face tutorials is difficult.

The teachers' feedback as to the progress of the course, what was working well and what needed to change, supported better development in terms of both resolution of cases and the organization of the course.

Teachers and facilitators are responsible for supporting students in the development of interdisciplinary cooperative teamwork competencies that address various health situations, using students' previous learning and identifying the roles of the different team members. They are provided with a formative process before they start working with the interprofessional groups. In the last two versions, a psychologist was also incorporated in these training processes.



Each year the courses are improved by adapting content based on formative and summative evaluations and by adding other professions. In 2015, the modules finally reached the process of curricular innovation across all eight health careers (nursing, obstetrics, nutrition, speech therapy, occupational therapy, kinesiology, medicine, and medical technology), generating for the first time a mega-transversal course with about 720 students, 35 teachers in charge and facilitators, and 70 teams of students simultaneously across the system. A publication derived from the experience in these courses was accepted for publication in the *Journal of Interprofessional Care*, illustrating the importance of contributing to the core of knowledge regarding IPE.

In terms of benefit, this initiative enables the integration of professors from different units and disciplines and encourages the active participation of students. The modules are also a space of innovation in teaching strategies and enable the strengthening of teamwork among academics and between students. Professors receive a certification to become MIM facilitators during a course, held at the beginning of the academic year, that includes training on teamwork and leadership skills and serves not only for teaching purposes but for other academic tasks such as research.

Future challenges and goals of the University of Chile include assessing the best way to document the acquisition of interprofessional skills, evaluating the processes of curricular innovation and integration, continuing to overcome barriers and resistance, contributing to generation of evidence regarding health education and professional impact, collaborating in integrating different universities of the country and the Region in advancing IPE, and advancing with respect to incorporation of interprofessional education in postgraduate education.

Dr. Almonacid ended by encouraging everyone to overcome barriers, generate evidence to support transformations in education, and collaborate across different universities in the country and the Region.





## Brazil: Interprofessional Education Initiatives

*Marcelo Viana da Costa, Professor of Master in Teaching in Health, Universidade Federal de Rio Grande do Norte*

Objective 1: Discuss the current state and policies supporting and hindering IPE in Brazil

Objective 2: Identify opportunities to collaborate in the implementation and evaluation of IPE

Dr. Marcelo Viana da Costa started his presentation by briefly describing the Brazilian health system to provide a context for understanding the state of IPE in Brazil. The aim of the country's Unified Health System (SUS, per its acronym in Portuguese), a universal health entity resulting from a number of social movements, is to serve as an instrument for exercising and guaranteeing citizenship. The SUS considers the expanded concept of health and, as a result, establishes as its basic principles universality, comprehensiveness, and equity. In that sense, it recognizes the complexity of health needs and understands the necessity to change the health care model, transforming it from fragmentation to a model that efficiently addresses complex health problems. Given the principles of the SUS, its development created a favorable environment to discuss teamwork as a strategy for coping with these complex realities.

Important theoretical contributions were made in Brazil in regard to the specificities of teamwork in health. However, policies regarding reorientation of health professionals' training that sought to align education with SUS principles were not always able to advance teamwork training.

Some of the issues created by policies for reorienting health professionals' training include the following: strengthening the interaction among universities, health services, and the community; advancing in terms of the accomplishment of curricular changes to overcome the technical model of training; and adopting active learning methodologies. Examples of policies that contributed to changes in the training of health professionals are as follows:

- Clinical-Professor Integration (IDA, per its acronym in Portuguese) Project: strengthened integration between health services and universities.
- PROMED: stimulated curricular changes in medical training.
- Pro-Health I: stimulated curricular changes in medicine, nursing, and dentistry, including curriculum reforms; advancements in the integration between service and academic institutions and in community service; adoption of new learning methodologies; and diversification of practice scenarios. The reason only medicine, nursing, and dentistry were included is that they make up the Family Health Strategy, which is the country's primary health care policy.
- Pro-Health II: resulted from a reformulation of the first version of the policy, expanding it to all health professions.
- VER-SUS: implemented internship experiences in health services.
- PET-Health: encouraged early insertion of students into health services to promote learning, with an understanding of the need for interprofessionalism and interdisciplinarity as approaches for changing the educational process. In 2013, interprofessionalism was adopted as a policy guideline.

PET-Health was the most successful in raising awareness related to limitations in teamwork. In 2012, it still used the term interdisciplinarity. In 2013 the term interprofessionality was incorporated as a result of the expansion of this debate in the Brazilian scenario.

Another experience that should be highlighted is the policy that generated the professional master's degree in health education. Master's programs resulted in an important scenario to further promote discussion of IPE as a tool to change health professionals' education.

Curricular guidelines for undergraduate courses provided support for IPE. The first guidelines from 2001 included an expanded health concept, evidence- and competence-based education, critical and reflective thinking, and the need for coherence between professional profiles and country health needs; at that point, teamwork was not a focus. However, in 2014, new medical course guidelines highlighted IPE as a tool for the reorientation of these professionals' training. Medicine as a hegemonic category made this an important initiative because it stimulated other courses to also reflect on the inclusion of IPE in reformulations of their guidelines.

Even though many important advances were achieved, they did not make IPE strong enough in the health education arena; little emphasis was given to interprofessionality, and there is still frequent conceptual confusion in the various policies. In Brazil, the terms multiprofessionality, interdisciplinarity, and interprofessionality are still used synonymously; however, their conceptual and methodological foundations need to be recognized and understood so that IPE can achieve its full impact.



Interprofessional education initiatives in Brazil include the following:

- Multicampi School of Medical Sciences of Caicó
- Federal University of Minas Gerais: curricular changes
- Federal University of Rio Grande do Norte: Health and Citizenship (SACI), a course offered during the beginning of all health care curricula in the Family Health Strategy (Brazil's primary health care policy)
- Federal University of Rio Grande do Sul: integrated residencies
- Federal University of São Paulo (UNIFESP) of Baixada Santista: interprofessional curriculum
- Federal University of Southern Bahia: interdisciplinary bachelor's degrees
- Public Health School of Ceará: integrated residences
- State University of Londrina: integrated curriculum
- State University of Rio de Janeiro: residence in elderly health care
- State University of São Paulo in Botucatu: University, Service and Community Integration (IUSC) course
- University of Brasília

Notably, there are important initiatives throughout the country. However, it is important to reflect on their concept of IPE, which is not simply gathering students from multiple professions together in a common space; this is a misconception. Two events were carried out with the aim of generating dialogue and critical thinking to potentiate the discussions and to collaborate in the reflection of these initiatives. The first event was the "I International Colloquium of Interprofessional Education and Work," held in 2015 in the northeastern Brazil city of Natal with the participation of Professor Scott Reeves. Discussions during this event highlighted the importance of thinking about IPE in a more systematized way, including mapping out and supporting the strengthening of initiatives. The other event, "II International Colloquium on Interprofessional Education and Work," was held in December 2016 in celebration of the 10 years of existence of the Interprofessional Curriculum of UNIFESP Baixada Santista. Professor Andreas Xyrichis from the Centre for the Advancement of Interprofessional Education (CAIPE) in the United Kingdom participated in the colloquium.

The 2016 event generated the creation of a network, following others found around the world, designed to provide a framework to support research, scholarship, and education. The Brazilian Collaborative Network of Interprofessional Education and Work in Health, formed by an executive group, focuses on coordination, communication, and dissemination. The network is supported by several institutions that work with IPE initiatives. The pillars that sustain the network are annual events, multicentric research, articulation of class entities, searches of publications in supplements and magazines, international partnerships, websites, repositories and journals, institutional support, articulation with ministries of health and education, management of actions and projects, methodological support for projects, funding, hosting of sites and trips for events, and participation in events.

Brazil faces challenges regarding the integration of experiences and teaching methodologies, given the enormous diversity of the country. Recommendations were made to expand research to give IPE greater visibility as an approach to reorienting professional training in health. The need to work collaboratively on policies that encourage adoption of IPE, such as PET-Health and national curricular guidelines, was also emphasized. Finally, the need to strengthen the debate on the theoretical and methodological bases of IPE, overcoming the conceptual confusion that frequently occurs, was highlighted.

## United Kingdom: Centre for the Advancement of Interprofessional Education (CAIPE)

*Dr. Elizabeth Anderson, Professor of Interprofessional Education, College of Medicine, Biological Sciences and Psychology, University of Leicester*

Objective 1: Discuss the vision and goals of CAIPE to promote IPE and collaborative practice in Europe

Objective 2: Describe the positive and negative lessons learned from establishing a national IPE center

Dr. Elizabeth Anderson outlined the status of CAIPE and the United Kingdom's perspectives concerning challenges regarding resource capacity and IPE. CAIPE was established in 1987 and provided the definition of IPE that is now used worldwide: "occasions when two or more health/social care professions learn with, from, and about each other to improve collaboration and the quality of care."

CAIPE is a membership organization that includes students, individuals, and corporate members, and it is considered an IPE "think tank" and a national and international leader in research collaboration. CAIPE is involved in the development of courses and initiatives that support the development of IPE, and it both contributes to and influences policy in the United Kingdom.

The core issue and goal of CAIPE is working strategically to support IPE processes. CAIPE assists with coordinating policies, priorities, strategies, and requirements for IPE within professional education. CAIPE members respond to national consultation documents and work with national policy organizations.

Critical success factors for influencing academics are as follows:

- supporting students
- cultivating corporate memberships
- promoting publications
- promoting IPE research
- establishing international alliances

The National Health System (NHS) aims are to improve health and well-being outcomes, to improve quality of care, and to create financial efficiency. CAIPE believes that it can address these aims through establishing new care models, optimizing systems, reconfiguring services, and enabling the workforce. In summary, the CAIPE leadership supports and enables IPE for interprofessional collaboration, offers support and scholarships to individual members, and lobbies for interprofessional collaborative practices at the policy level.

Several challenges were noted, including the expansion of roles, which is necessary due to the daily shortfall in trained staff. However, the new NHS plan requires IPE implementations to decrease hierarchies, increase innovation, exchange skill sets, and support open relationships.

Recent policy reports and new developments in the United Kingdom have renewed awareness of the importance of education and training conducted with an interprofessional focus. This is showcased in the recent systematic review of the effects of IPE by Reeves et al. (6).

Finally, Dr. Anderson described the Leicester model of preparing students for an IPE experience in the community. The model includes preparation prior to the experience, the experience in the community, reflection on the experience, assimilation due to the experience, and the outcomes of the experience with the hope that experiences will transfer to practice.

The key messages from Dr. Anderson, who is a leader in CAIPE, were that IPE has been sustained and that the greatest challenge today involves IPE leadership and assessment.

## Canada: Canadian Interprofessional Health Collaborative (CIHC)

*Dr. John Gilbert, Professor Emeritus, University of British Columbia; Adjunct Professor, Dalhousie University; Founding Chair, Canadian Interprofessional Health Collaborative*

Objective 1: Describe strategies used and barriers faced in aligning IPE with collaborative practice to transform health care in Canada

Objective 2: Discuss the vision and goals of the CIHC to promote IPE leadership in Canada

To finalize the presentation of countries' experiences, Dr. John Gilbert started his talk with background information regarding IPE. The term interprofessional was first used by John McCreary, dean from 1959-1972 of the University of British Columbia Faculty of Medicine. There is no hyphen in the correct term, and it has a very distinct definition with three testable parts. Therefore, "multidisciplinary" and "interdisciplinary" should not be used interchangeably with "interprofessional." In addition, the term interprofessional follows WHO's definition of health: it does not include only regulated health professions; rather, it includes all people who work professionally in the provision of care of all kinds, whether they are ambulance drivers, the people who are cleaning the ward, the people at the front desk taking information about patients, and so on.

Dr. Gilbert initiated a thoughtful discussion by asking the audience to consider the answers to questions regarding the why, who, when, where, how, and what of IPE for patient-centered collaborative practice.

**Why:** need for clear and coherent arguments for IPE and IPCP. These arguments need to be based on a clear understanding of the definition, its parts, and the fact that the final goal is quality of care. There is also a need to understand that participants are both informants and champions.

**Who:** understanding and practicing new roles for faculty, students, staff, practice colleagues, senior administrators, and patients/clients.

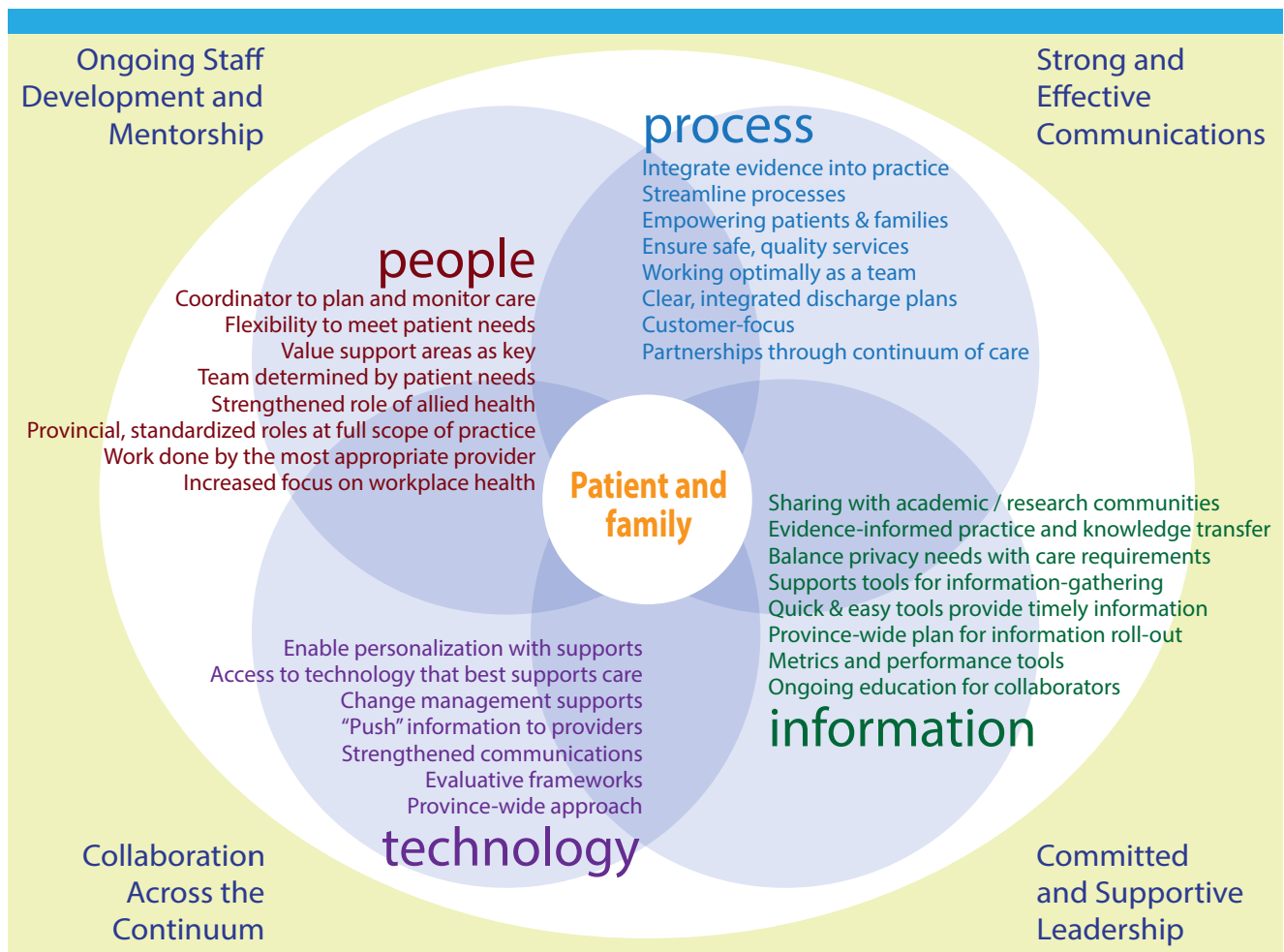
**When:** evidence for IPE exposure and immersion for pre-licensure students and mastery for post-licensure students, along with lifelong learning through informed consultation among governments, campuses, communities, and patients.

**Where:** theories and models for campus-based learning (with common spaces where students from different professions can learn together) and community-based learning (e.g., primary care, tertiary care, public and preventative health, and health promotion).

**How:** operationalizing the IPE definition (e.g., “learning with, from, and about”; “collaboration”; “quality of care”). The knowledge, skills, attitudes, and behaviors required must be analyzed, keeping in mind that the main purpose is provision of quality health services. It is also important to perform evaluations at all stages and conduct learning activities in which students have the opportunity to work together. An example is the Collaborative Care Model (Figure 5).

**What:** the “carrot” or “stick” for IPE, which might be politics and policy regulation (competencies and accreditation) or legislation (practice environment).

**Figure 5 – Collaborative Care Model**



Source: Murphy GT, Alder R, MacKenzie A, Rigby J. Model of Care Initiative in Nova Scotia (MOCINS): Final Evaluation Report. Halifax: Nova Scotia Department of Health; 2010 (7).

Dr. Gilbert concluded his discussion about the IPE experience in Canada by stating that there are two challenging questions that should be kept in mind when implementing IPE:

- What is the policy coherence (alignment) between the education sector and the health sector?
- What is the return on investment for IPE/IPCP?

## Regulation of Health Professional Practice and Implications for Collaborative Practice

*Hernán Sepúlveda, Regional Advisor on Human Resources for Health, PAHO/WHO*

Objective 1: Identify the action framework of professional regulation in different countries of the Region

Objective 2: Discuss the implications of professional regulation in collaborative practice

Dr. Sepúlveda discussed the regulation of health professionals' practice and the implications for collaborative practices in the countries of Latin America and the Caribbean. The presentation focused on three central elements that need to be incorporated into situational analyses: the model of care, the management model, and regulations. A review of PAHO/WHO documents and resolutions being incorporated by different governments was presented, along with a brief analysis of the existing legal framework related to regulation in LAC.

The importance of a question raised by Dr. Gilbert (“How can we work together if we don’t learn together?”) was addressed and reviewed regarding a different perspective: “How can we learn together if we don’t work together?” Three fundamental aspects of advancing an IPE model need to be considered:

- 1. The need for a model of care consistent with collaborative practice;**
- 2. The need for a work management model; and**
- 3. Adequate regulation.**

The focus of PAHO/WHO’s work is on strengthening the first level of care, and that also applies to interprofessional health teams; however, the effectiveness of these teams is not limited to the first level of care. In that sense, data regarding interprofessional teams can be found in a Canadian study carried out in 2009, “How Many Are Enough? Redefining Self-Sufficiency for the Health Workforce” (8). This paper estimates that, in some provinces of Canada in which interprofessional health teams are being used, physicians can deliver 50% more health care services than those working in the traditional systems (8).

Data show that models of care that include interprofessional teams are more efficient. For that reason, and given the importance of greater access to health that is based on quality and resolution of problems, IPE—with the goal of preparing a workforce that can engage in collaborative efforts—is much needed. This is especially the case in the context of the Region of the Americas, where access to health care is greatly impacted by shortages in human resources for health, particularly in remote and vulnerable areas.

PAHO/WHO's key resolutions and documents that support IPE and collaborative practice are:

- Resolution CD52.R13 (9), Human Resources for Health: Increasing Access to Qualified Health Workers in Primary Health Care-Based Health Systems, approved in 2013 during the 52nd PAHO/WHO Directing Council;
- The Recife Political Declaration on Human Resources for Health: Renewed Commitments Towards Universal Health Coverage, signed in November 2013 during the 3rd Global Forum on Human Resources for Health;
- Resolution CD53.R14 (10), Strategy for Universal Access to Health and Universal Health Coverage, adopted in 2014 during the 53rd PAHO/WHO Directing Council;
- Resolution WHA69.19, Global Strategy on Human Resources for Health: Workforce 2030, approved during the 69th World Health Assembly in 2016;
- The Human Resources for Universal Health Agenda 2014; and
- The report of the High-Level Commission on Health Employment and Economic Growth established by the United Nations: Working for Health and Growth: Investing in the Health Workforce, launched in 2016.

Resolution CD52.R13 (Human Resources for Health: Increasing Access to Qualified Health Workers in Primary Health Care-Based Health Systems) (9), approved in 2013, was the one that initiated discussions regarding interprofessional work. This resolution included three fundamental components:

1. Strengthening of human resources for health planning capacities;
2. Reform of health professionals' education to support health systems based on quality primary health care and to move toward universal health coverage; and
3. Empowerment of people-centered, community-oriented collaborative teams.

Through this resolution, Member States were urged to empower and support primary health care collaborative teams based on established models of care, improving the scope and practice of professions to maximize their potential according to IPE competencies. They were also urged to encourage and monitor innovation in order to improve primary health care teams' performance and management. These points of the resolution are very important given that some health professionals have unmet potential that is not being completely developed and utilized and that the development of interprofessional primary health care teams is an innovative solution to improve access to health care, especially in underserved areas and areas impacted by shortages in human resources for health.

(<http://apps.who.int/iris/bitstream/10665/168036/1/CD52-R13-eng.pdf>)

The Recife Political Declaration on Human Resources for Health: Renewed Commitments towards Universal Health Coverage, signed in 2013, describes the commitment of representatives of governments to enhance the competencies and skills of health personnel through transformative education approaches and opportunities for continuing education—that is, education that supports improvements in access to health through



development of competencies allowing health workers to strengthen governance, performance, personnel distribution and retention, and promotion of the use of technology. The signed commitment harnesses the potential of innovative approaches, including a more efficient balance among the different categories of health professionals' task sharing, delegation of functions, and innovative models of care delivery.

([http://www.who.int/workforcealliance/forum/2013/recife\\_declaration\\_17nov.pdf?ua=1](http://www.who.int/workforcealliance/forum/2013/recife_declaration_17nov.pdf?ua=1))

Resolution CD53.R14 (Strategy for Universal Access to Health and Universal Health Coverage), adopted in 2014, proposes four strategic lines, all of which are linked to the work currently occurring in interprofessional teams. However, the most relevant is the strategy that discusses the expansion of equitable access to comprehensive quality health services, centered on people and communities. Another aspect of this resolution is related to new professional and technical profiles and their alignment with models of care, which also concerns the work of interprofessional teams.

The resolution proposes bolstering the capacity of human resources for health based on the first level of care and improving employment opportunities with incentives of attractive labor conditions, especially in underserved areas. It also proposes that collaborative health teams be consolidated and provided with guaranteed access to information on health and telehealth services, including telemedicine. Telemedicine was described as an important aspect, above all, in neglected areas where health professionals (not necessarily doctors), can use technology to engage in dialogues with specialists and solve problems that otherwise would not be solved. Thus, telemedicine as a strategy is also linked to the development of interprofessional teams and to the problem-solving ability of professionals.

The Global Strategy on Human Resources for Health: Workforce 2030 (1), approved during the 69th World Health Assembly in 2016, proposes four general objectives. The first one is linked to the achievement of maximum performance, quality, and impact of health personnel through evidence-based policies in the area of human resources for health. The second is related to investments of human resources for health that must be based on the present and future needs of the population and health systems. The third objective refers to strengthening the capability of institutions at the subnational, national, regional, and global levels toward the public policy rectory. Finally, the fourth objective is related to strengthening data on human resources for health.

The global strategy also invites educational institutions to adapt/align their institutional set-up to the modalities of instruction that are consistent with national systems and with population health needs. Once more, the linkage is between the needs of the population and the education of human resources prepared to perform in accordance with those needs.

(<http://apps.who.int/iris/bitstream/10665/250368/1/9789241511131-eng.pdf?ua=1>)

The proposed Human Resources for Universal Health Agenda includes three major strategic orientations, one related to stewardship and governance capacity, another to availability and distribution, and the third to health professionals' education. The second orientation (improving availability and distribution) clearly relates to strengthening of interprofessional teams along with a related set of sub-areas: regulation of professional practice, with a focus on maximizing professionals' potentials; organization of the work of interprofessional teams; improvements in the scope and practices of all members of the health team, facilitating collaborative work; and establishment of human resources for health planning in relation to a set of professions as opposed to silos.

Finally, *Working for Health and Growth: Investing in the Health Workforce*, the report of the High-Level Commission on Health Employment and Economic Growth, presents three major areas of focus. The first is that health is key for the economy and considered a motor in the creation of decent employment. The document explains that if investments are made in health workers, the result will be economic growth. It calls for creation of employment, gender equality, and fiscal space for health financing.

(<http://www.who.int/hrh/com-heeg/reports/en/>)

In addition to contributing to health professionals' rights, regulation also supports the development of their knowledge and training, strengthening efficient operations of human resources in health systems. Dispersion and fragmentation of regulatory frameworks can be found in LAC, especially in medicine, nursing, and dentistry. There are sets of actors that can influence regulation, and they vary in different countries: the government, professional organizations, citizen organizations, and educational institutions, among others. Further policy development is needed for aspects related to education—including accreditation, requirements for registration, and recognition of foreign titles—and practice, such as rights and duties and descriptions of professionals' competencies.

Throughout this analysis, it is noteworthy that countries are discussing the need to adapt work management models, in which rests the concept of interprofessional teams. This implies the utilization of professionals' potential to its maximum level. Therefore, regulation must be considered an important element in order to move interprofessional education forward.

In summary, Dr. Sepúlveda remarked that there was an important issue to consider that is central to IPE: “We are very concerned in our countries with how many physicians, how many nurses, how many obstetricians we are lacking, but we are not asking ourselves how many health teams we are lacking. This is a central element because behind that health team there are competencies that need to be articulated, complemented, and finally built together, particularly if we are aiming for a comprehensive first level of care.”

## Interprofessional Health Team Management

*Dr. Brenda Zierler, Professor, Department of Biobehavioral Nursing and Health Informatics, University of Washington School of Nursing; Director of Research and Training, University of Washington Center for Health Sciences Interprofessional Education, Research, and Practice*

Objective 1: Describe interprofessional health team management models and implications of their implementation and development

Objective 2: Describe the positive and negative lessons learned from establishing interprofessional health team management models

Dr. Zierler presented an example of IPE in clinical practice utilizing an academic-to-practice partnership to improve collaborative care. She also described positive and negative lessons learned from establishing interprofessional collaborative practices for health care teams caring for patients and families with advanced heart failure (AHF).

Using the IOM Interprofessional Learning Continuum Model, Dr. Zierler pointed out that learners for this type of team training (or retraining) were at the “continuing professional development” level or those already in practice (not students).

The purpose of the team training was to increase teamwork and team communication in an accountable care organization in the United States. The training was developed for and by cardiologists, nurse practitioners, nurses, pharmacists, social workers, medical assistants, and patient care coordinators. The emphasis was on moving from a “team of experts” to an “expert team.”

The strategies and approaches that the health care team used to implement change within one inpatient AHF unit were outlined. The pre/post measures prior to team training included a culture of safety, satisfaction (on the part of patients, providers, and nurses), and core AHF measures (admission/readmission rates, use of beta blockers, etc.). In addition, two validated team surveys were administered to determine how the team members perceived their functioning before and after the training. Observations of team functioning were completed by external researchers. The areas of greatest opportunity with respect to improvements in team functioning identified across all measures were (1) timely communication, (2) shared knowledge, and (3) mutual respect.

The interprofessional training intervention included TeamSTEPPS® communication training, the introduction of structured interprofessional bedside rounding (SIBR), and leadership workshops focused on relationship and communication issues (conflict, speaking up, leading change, etc.). In addition to the formalized training and quarterly leadership workshops, the training team provided ongoing coaching for the AHF clinical team. The team strategies that were introduced included SIBR, morning briefs, midday huddles, and end-of-day debriefings. In addition, the AHF developed team agreements—or rules—that provided psychological safety for all team members. The training team also included patient advisors to contribute to the training so that the patient’s perspective was included in the training. Training results to date were presented, and improvements in team functioning and clinical outcomes were noted.

# Discussions

## Current State of Health Education and the Role of Interprofessional Education

Objective 1: Discuss the current state of health education and the role of IPE in transforming and scaling up health professionals' education and training

Objective 2: Discuss the meaning of IPE within the institutional context

Key points discussed:

- IPE is considered unknown or a new concept in most LAC countries, and therefore it is not yet included in policies in general.
- In the context of health personnel crises, IPE and practice should be seen as policy elements that must be developed at the service and training levels.
- Need for professional openness.
- Need to adjust professionals', institutions', and governments' conceptions of educational and health service processes in alignment with the interprofessional approach.
- Need to generate spaces for discussions and empowerment of professionals, institutions, and governments regarding the concept.
- Development of a common conceptual framework will support definitions of policies, strategies, tools, and evidence.
- Include the interprofessional approach in regulation and standards of professional practice for all health professionals.
- Accreditation processes favor interprofessional health education since it is an indicator of national and international quality, and therefore such education should be strengthened.
- The concept is not about sharing academic or clinical scenarios but truly integrating teams, generating a common language in which to move health professionals' education forward.
- The study and research processes on IPE must be strengthened to allow for the acquisition of a more complete vision of the IPE concept.
- Need for academic leadership that can contribute to generating relevant research analyzing the medium- and long-term effectiveness of IPE activities carried out in LAC.

- Implementation of IPE requires cross-sectoral work at all levels, joint reflection, planning, and evaluation mechanisms.
- Need to articulate the academy and health system from the beginning of education (training of health professionals does not always align with what is in place within health systems).
- Closer alliances between ministries of education and health require interprofessional policies to be put in place as state policies and not only government policies, given the transient aspect of governments.
- Need for community participation to bring awareness of IPE to the general population and to obtain public feedback on IPE implementation.
- Need for changes in paradigms, in labor niches, and in learning environments in which practice must be privileged.
- IPE requires strengthening of academic training carried out in service and in the workplace, based on tools that have shown good results in different experiences.
- IPE is an opportunity to develop new skills not only among students, but also among teachers, since it adds another variable of innovation in current teaching strategies.
- Interprofessional problem-based education was proposed as a way to bring collaborative practice to its full potential.
- Initial training, when competencies such as strategic thinking and problem solving are being developed, is considered an entrance point to implement the concept of interprofessional practice.
- Need to review the attributes and roles of health professionals based on population health needs, with the participation of the academy, scientific associations, professional associations, and health and education governing bodies, specifically those that are responsible for decision making and those that define standards of professional practice.
- Need to define professional profiles according to population health needs and expectations, which imply curricular revisions identifying, among other elements, common aspects between the professions and between the curricula, not only in terms of what needs to be put in place but also what already exists.
- Interprofessional work requires horizontal, non-hierarchical integration among health professionals.
- Need to create mechanisms that avoid power battles among health professionals, such as the development of a common language and definition of transversal competencies.
- Inclusion in basic education of the concept of IPE and practice in health care to bring awareness among children who one day will form the cohort of students in health education schools.
- Need for resource allocation that supports IPE implementation.
- Need to generate networks and communities of practice to exchange good experiences.

# Interprofessional Education Curriculum Implementation and Faculty Development

Objective 1: Describe opportunities, challenges, barriers, and facilitating factors for developing and implementing IPE curricula

Objective 2: Discuss opportunities and challenges for interprofessional faculty development within the institutional context

## Key points discussed:

- Operational agreements are required among ministries of health, education, and labor; trade unions; health organizations and schools; accrediting agencies; and regulators of health practice and education.
- Existence of successful IPE and practice experiences in countries such as Canada.
- Adequate distribution of human resources for health in the countries.
- Change the rigidity of the social division of health work.
- Adequate financing in the health workforce and efficiency in resource utilization.
- Showcase to governments the efficiency in resource utilization achieved by interprofessional health teams.
- Establish national and international collaboration agreements for training and work in IPE.
- Create and strengthen intersectoral structures, whether with missions, councils, nongovernmental organizations, committees, or others that involve representatives of civil society.
- Provide local, national, regional, and international forums for discussion and exchange of experiences in interprofessional education and practice.
- Promotion and dissemination of IPE knowledge and results not only among health professionals but also among the general population, using different social media networks or platforms.
- Several institutions of higher education in the LAC countries are in various stages of curricular reform processes or subsequent adjustments, offering a great opportunity to incorporate IPE strategies.
- There is political will at the institutional level.
- Use of strategies to incorporate the participation of academic institutions, the community, trade associations, and other actors.
- The development of a plan to advance the training of leaders and tutors is also important.
- Resource availability is a limiting factor in a number of areas in which development of innovation is in place.
- Generate a national and regional plan for the implementation of IPE.

- How the definitions of roles and duties of each profession align with health service quality assurance.
- Medical doctors tend to be more prone to resistance regarding concepts such as IPE, and thus it might be necessary to design specific strategies for these professionals.
- Stakeholders from other disciplines and areas should also be involved to allow for a transversal perspective (e.g., the contributions of engineers and other professionals in redesigning processes).
- Collaborations with strategic partners such as clinical laboratories, health systems, hospitals, and others that could add expertise on the path to implementation of changes.
- The IPE implementation plan must contemplate all of the variables that are of stakeholders' interest, such as accreditation and research, given the interests of universities; universal access to quality health, which is in alignment with population and community interests; and efficient use of resources, as approached by governments.
- Since IPE and interprofessional collaborative practice planning include different visions, interests, and cultures, the plan needs to be built from the expression of common efforts and decisions made by a group committed to its implementation.
- The challenge is to overcome resistance to the questioning of one's own professional practices and of teaching practices by academic institutions.
- The challenges regarding professional practice are obvious, especially since professional identities are generated very early on, from a student's first day at a university when a hidden curriculum starts to form. This hidden curriculum reinforces one's professional identity, making it difficult to accept or integrate the interprofessional approach. The same applies to professional associations and associations of schools and faculties of health professionals.
- Aspects that can be used to overcome the challenge of professionals' identity: patient safety, which requires clear relationships and communication between health professionals; the need for professionals to adapt to change, such as the epidemiological shift in populations' health, changes in treatment modalities, and changes in the professions themselves; and the competitive advantages of innovation, such as competency-based learning and IPE.
- Take advantage of educational health programs to introduce new visions and new concepts.
- Interesting changes are being made in many universities that are beginning to introduce common classes for all health areas.
- Thinking about national and institutional changes is important; however, it is necessary to recognize and reinforce small advances, for example the efforts that are being made to promote significant learning in many of the countries, such as the development of qualification frameworks for higher education. Although these advances did not solve the problem, they made it possible to move education forward.
- Generate incentives through accreditation or standardization, through the development of educational innovation competitions, and through highlighting, showcasing, and disseminating successful experiences.

- Certain characteristics of the new generations of students, such as horizontality, can facilitate interprofessional collaboration.
- New technologies also provide an opportunity to facilitate and strengthen IPE, such as interprofessional simulations and virtual classrooms.
- The ingrained culture of granting privileges to medical doctors in certain countries of the Caribbean leads to a lack of flexibility and a lack of communication among professionals, imposing a great challenge.
- Despite all of the difficulties, there are also opportunities that can be built upon.
- Members of academic institutions might be resistant to IPE given that there is very little understanding of the work necessary to ensure interprofessional collaboration, not for edification but for the benefit of patients.
- The support of academic institutions is important.
- Inclusion of IPE strategies in educational institutions' strategic plans.
- Sharing difficulties faced early on and resources among those who have already advanced and those who are starting is very important.
- The support of international organizations is important given their influence on the actions of governments.
- There are three important levels of integration: integration among the major organizations concerned with health and education globally, integration among those same organizations at the regional level, and intersectoral integration at the national and subnational levels.
- Alignment to allow for the implementation of not only IPE but also interprofessional models of care, which can be achieved through joint work among ministries of health, education, and labor.
- IPE benefits patients in that it allows for a more comprehensive approach to health care in which population needs and demands related to care can be met, in addition to promoting health care safety and quality.
- IPE also benefits students and communities. Universities at different levels have the capacity to regulate education, which translates into several aspects. Two examples are interprofessional education and integration of social responsibility into universities' missions. These aspects bring a social accountability approach to education and research, producing knowledge, technology, innovation, and competitive funds that are oriented with relevant criteria and that carry the goal of impacting development in society.
- The flexible curricular designs and transferable credit systems being incorporated in Latin America will benefit students by giving them opportunities to study in other regions and in other countries, providing learning experiences that will support interprofessional education. IPE will be better incorporated if it is implemented in the form of extracurricular mandatory courses, for training in either basic sciences or pedagogical strategies such as simulations.



- Development of transversal competencies in ethics and bioethics regarding behavior in the face of ethical problems. These competencies will have a great impact on interdisciplinary and interprofessional collaborative teamwork. During this process, it will also be important to gather evidence and create indicators that will allow for evaluation of results.
- Health team leadership and how it could affect work outcomes may be a challenge. Training in teamwork and leadership needs to be emphasized to better develop the skills of each profession, with the aim of avoiding overlap or distortion of the roles and functions of each member of the health care team.

## Interprofessional Education and Collaborative Practice from Multiple International Perspectives

Objective 1: Compare and contrast approaches to IPE and collaborative practice from multiple international perspectives

Objective 2: Discuss strategies and approaches to IPE within the institutional context

- Generate spaces of collaboration, such as collaboration networks, between key actors in the countries and internationally, including ministries of health, representing governing bodies and health services; ministries of education and universities; community representatives; and nonprofit organizations.
- Diagnose the current situation of IPE in universities, and within the continuous education of health care providers, through the ministry of health.
- In addition to strengthening the methodological aspect of IPE, it is also important to strengthen its related scientific work, which in turn will support its advancement.
- Countries will benefit from taking advantage of the current process of higher education reform, which implies changes in regulations and norms, facilitating the implementation of IPE.
- IPE should also be reflected in laws and regulations and in health professionals' performance measurements. At present, these components are mainly guided by indicators for each profession separately, with only a few indicators per team.
- A good step to start a project focused on interprofessional health education is the commitment of health system managers to interprofessional work and training of the existing workforce.
- Need to expand and align strategies or initiatives for faculty development in IPE and collaborative work, along with postgraduate education that contemplates interprofessional health education.
- Need to align national policies directed toward health professionals. The policies that are already in place should be redirected to focus on collaborative practice and IPE, with discussions among the ministry of health and ministry of education.
- Need to place on the agenda the importance of IPE in health, taking advantage of existing structures and linkages.

- Carry out a mapping of interprofessional experiences that exist in the countries, both in undergraduate and postgraduate education and in residency training associated with university activities or degrees. Once these experiences are identified, promote them in areas where IPE is not yet carried out through pilot initiatives led by government agencies that promote IPE, including its financing.
- Attain local senior staff administrators' buy-in and funding to assess local health problems (e.g., alcohol abuse, rural care), in which IPE activities would probably benefit as a starting point.
- In hospitals, changes can start in one ward, altering the culture so that doctors, physiotherapists, and the entire team can work together in translating changes to the rest of the hospital system.
- In countries where a national strategy related to IPE has not been developed, there is a need for a concrete vision of the incorporation process at the level of management training, research, and other areas and a more strategic and comprehensive view of the impact on different macro, meso, and micro levels.
- Need for planning, reflection, and analysis jointly developed by faculty, health service providers, communities, and social actors identifying country needs and potential at the level of training, along with a definition of transversal competencies for people-centered care.
- Some countries have inter-institutional commissions for training human resources for health, which might be organizations at the federal level that enable coordination by two government sectors such as education and health. These commissions meet in a systematic way and issue agreements and recommendations that could support IPE in those countries.
- Educational institutions might benefit from a reorganization of all of their postgraduate studies systems, aiming to promote joint work among several areas and fields of knowledge. Such a reorganization is an opportunity to further develop IPE and practice (an example is the reorganization conducted by the National Autonomous University of Mexico, in which about 300 postgraduate programs were reduced to 41 programs).
- Some countries have initial IPE experiences that are restricted to certain locations. However, change movements can positively influence the implementation of IPE. Examples include incorporation of simulations; studies related to emergencies and disasters; volunteering experiences, which are usually independent from universities but are now being incorporated into curricular plans (e.g., Peru's National Family and Community Health Training Program, in which the country's Ministry of Health, in alliance with universities, promotes collaborative work spaces that generate much stronger learning systems and interprofessional work); integrated health networks, which allow for strategic alliances with universities; programs that already integrate aspects of interprofessional teams (such as the Rural and Marginal Urban Health Service in Peru, a community service program aimed at developing preventive and promotional activities, mainly in underdeveloped rural and marginal urban areas); and agencies that regulate clinical fields (for instance, the National Committee on Undergraduate Health in Peru).

- In this context, the problem of saturated hospital spaces for practice becomes a valuable opportunity because it forces universities to rethink practice spaces and, possibly, realize that these spaces may not be the best training environment.
- In addition to professionals, institutions are educating citizens and therefore creating spaces of integration and learning in the areas of art, music, and theater, enriching people in all of their dimensions and making it easier to understand that health care should not be restricted to one perspective.
- It is also important to integrate and promote intercultural visions and experiences (e.g., at Peru's Universidad Nacional de San Antonio Abad del Cusco, various pre- and postgraduate students and professors live in the community for weeks to provide comprehensive care).
- In addition to individual professional profiles, it is also necessary to develop health teams' profiles to reflect the comprehensive health care needs of the population.

## Presentation Work Groups and Discussions

Objective 1: How to develop and implement IPE in the Region

Objective 2: Identify potential partnerships among and within countries to implement and develop IPE

Objective 3: Discuss IPE viability and impact in education and opportunities for building the health care workforce of the future

The last presentation was led by Daniel Purcallas and moderated by Francisco Ariza Montoya. They set the stage for each country to present its future IPE goals by discussing the viability and impact of IPE for building the health care workforce of the future. Dr. Montoya represented Colombia's Development of Human Capacity in Health, which is part of the Ministry of Health and Social Protection.

Each country described its goals; 30-, 60-, and 90-day timelines for IPE implementation; and the resources needed to reach its goals. In addition, strategies for developing partnerships with other IPE leaders across Latin America were identified. Each country was asked to identify a communication liaison who would be the point person between the country and PAHO. Also, all of the country leaders were asked to present a five-minute report and to provide additional information on their plan to the PAHO representatives.

## Next Steps and Recommendations

Objective 1: Summarize the meeting objectives and processes used to meet the learning objectives

Objective 2: Identify opportunities for collaborations between various countries to promote IPE and collaborative practice

Objective 3: Discuss the establishment of a technical group to support PAHO/WHO activities regarding IPE

The final session was a culminating summary of the three-day workshop led by Dr. Silvia Cassiani, following comments from three moderators who were asked to discuss the content and format of the workshop from their perspective: Marcela Groppo (Argentina), Claudia Brandao Goncalves (Brazil), and Rigoberto Centeno (Panama).

Dr. Cassiani commented that everyone (each country table) had done a great job identifying goals but offered a word of caution for each country to identify activities that are reasonable and feasible to complete within various timelines. She said it was wonderful that everyone was “thinking big” but it was important to break down the activities into manageable steps, or they would be too overwhelmed to meet their goals. Dr. Cassiani provided an expected timeline for participants to complete their work. Each country was to submit a “Plan of Action” to PAHO by 20 February 2017. The table below outlines the items, deadline dates, responsibilities, and materials for ongoing work.

<b>Item</b>	<b>Deadline</b>	<b>Responsibility</b>	<b>Materials</b>
<b><i>IPE Action Plan</i></b>	20 February 2017	Countries	Spreadsheet (20 December 2016)
<b><i>IPE Action Plan Progress Report</i></b>	15 April 2017	Countries	Spreadsheet (20 February 2017)
<b><i>Preparation for Webinar: Summary of Progress Reports</i></b>	16-22 April 2017	PAHO/WHO/ University of Washington School of Nursing	N/A
<b><i>Webinar with the Countries</i></b>	Last week of April 2017	Countries PAHO/WHO/ University of Washington School of Nursing	N/A
<b><i>Next Event</i></b>	First week of September 2017	Proposing country: Brazil	N/A
<b><i>Interprofessional Education Regional Network</i></b>	Formalized through PAHO country office	Coordination: Argentina, Brazil, and Chile	N/A

## Final Meeting Debriefing

Dr. Zierler and Dr. Willgerodt facilitated a final debriefing of the meeting content and format for continuing process improvement purposes.

The debriefing questions were as follows: (1) What went well? (2) What could have gone better? and (3) What is one thing you will take away from this meeting?

What went well?

- The meeting was well organized.
- There were opportunities to learn from each other.
- The speakers and facilitators were excellent.
- There was an outstanding breadth of speakers and countries represented.
- PAHO did a great job of inviting key stakeholders from each country, including educators, ministers of health and education, regulators, and professional organizations.
- Everyone worked hard to develop their IPE action plans.
- The presentations and experiences shared were very valuable.

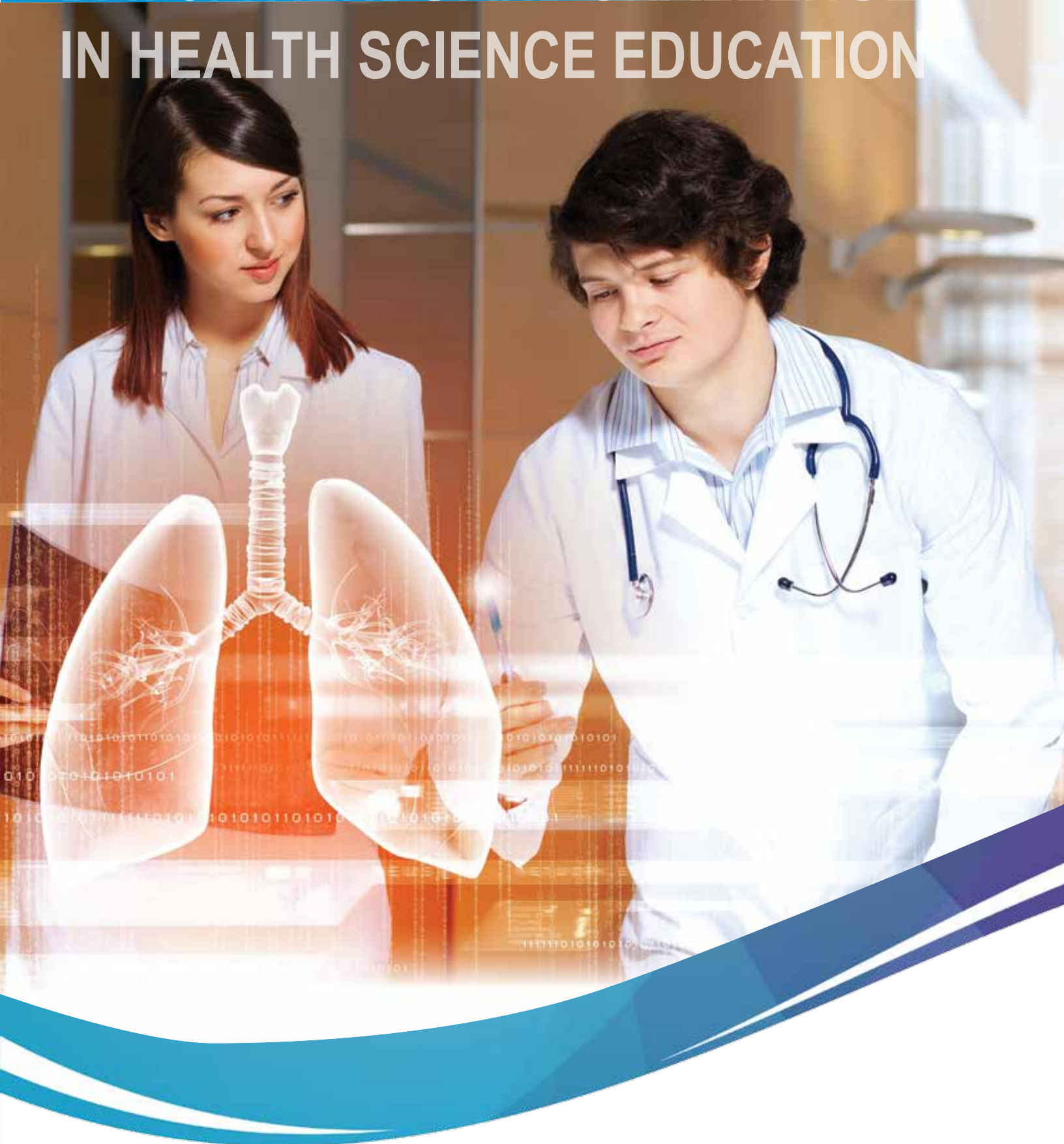
What could have gone better?

- More time for questions (to speakers and moderators) was needed.
- Some talks went too long, and there was no time for questions.
- All Latin American countries should have been invited (not all were represented).

What is one thing you will take away from this meeting?

- We are all from different countries but face similar challenges and can learn from each other.
- We don't have to reinvent the wheel, as things have already been created, but we need to collaborate and build on each other's work.
- The meeting was a huge lift in my spirit, as I have observed a slow growth in IPE for 50 years.
- I am extremely impressed about the preliminary action plans that are being developed by each country—excellent work.

# DAY 3: TRENDS AND CHALLENGES IN HEALTH SCIENCE EDUCATION





# Day 3: Trends and challenges in health science education

## Trends and Challenges in Health Science Education: The Role of PALTEX

*Dr. Silvia Cassiani, PALTEX Regional Coordinator, and Eduardo Castro, PALTEX Administrator*

PALTEX, PAHO's technical cooperation program, has been supporting health education for more than five decades. It currently serves 20 PAHO Member States through a network of 530 distribution points located in universities, health services, and ministries of health, and it has provided more than 8 million books and instruments at accessible prices. PALTEX entails the production, selection, and distribution of learning resources that are technically relevant and facilitate students' and health workers' access to knowledge and education.

### Questions to the academic personnel

#### Deans, directors, academic coordinators and professors

- What are the new developments with regard to curriculum changes or redesigns (pedagogical, didactic strategies, teacher-student relationships, technology)?
- In the current academic unit development plans, is technological modernization considered teaching support, and in which aspects could PALTEX contribute?
- How do you see the ability of university professors to use technologies?
- What careers in health science use simulators?
- Does the university have connectivity facilities for teachers and students, and where are the Wi-Fi points located?
- How are developing technologies used in the process of teaching and learning (advantages and disadvantages)?
- What tools do you and your students use to facilitate learning: photocopies, books, journals, library queries, laboratories?



Despite the program's success, it has now become necessary to shift PALTEX toward including digital materials and technologies to respond more effectively to the changing educational needs of health professionals and technicians in the Region, consistent with strategic orientations and PAHO mandates to achieve universal health.

To evaluate this educational change, PAHO carried out a study with health sciences universities in six countries (Argentina, Brazil, Bolivia, Colombia, Mexico, and Jamaica) in 2016. The study focused on analyzing the educational trends and didactic resources for learning education in universities in order to reorganize and modernize PALTEX. The descriptive analysis was based on the current situation in academic programs in terms of the perceptions of users and the contributions offered by information and communication technologies. A group of deans, professors, directors of academic programs, librarians, and students from health science schools were interviewed as well as managers from well-known publishers.

The results of the study within the academic context were:

- early exposure to health practices
- pedagogical strategy of problem-based learning
- a teaching process centered on students who manage their training with the advice of teachers (self-training)
- incorporation of Information and Communications Technology (ICT) as a tool for searching information and teaching programs through electronic and computer media
- integration between the basic sciences and clinics
- flexible and competency-based curriculum design
- selection of standardized patients, both in instruction and in evaluations
- introduction of simulation laboratories for training prior to hospital rotation

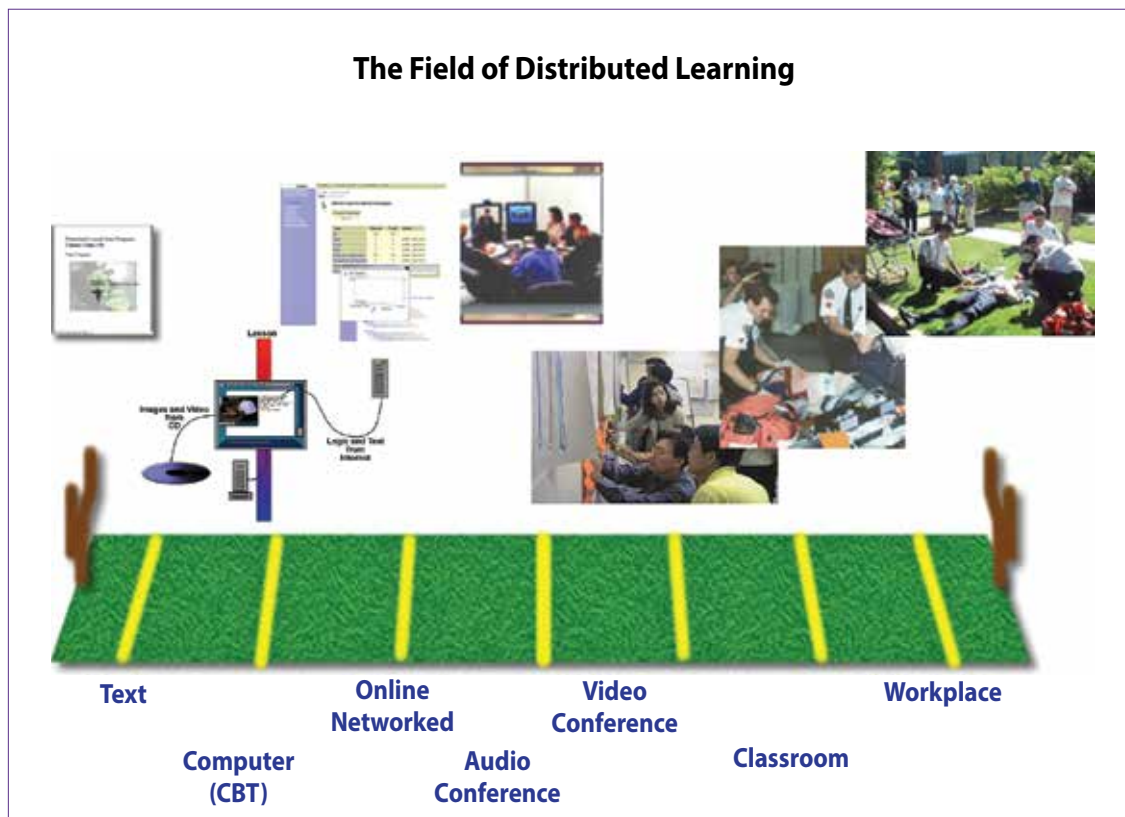
## Technology in Education and Innovative Responses to Human Resources for Health Needs

*Dr. John Gilbert, Professor Emeritus, University of British Columbia, and Founding Chair, Canadian Interprofessional Health Collaborative*

Dr. Gilbert began his presentation holding a smartphone and saying that it is the greatest tool he has ever had for teaching. Technology has changed in important ways, and the future of medical education lies in it. The way in which students learn and the way in which professors teach have not really changed in 5,000 years. It is expected that students remember what professors might have said or what they might have read so that they can put together a few pieces of information that then become new information.

Dr. Gilbert's position over 50 years of teaching has changed remarkably. However, his role continues to be guiding the intellect of younger people who are anxious to learn that there are places along the path of learning that are worth spending time visiting.

It is important to recognize that books are not really the major source of information for our students these days. Books that were once on shelves in a very big building can now be retrieved electronically for common learning.



Traditional education has been in the form of text-classroom-workplace. The purpose of being in the classroom was to obtain an education and then go on to the workplace to learn how to do one's job. Now technology brings to education the ability to distribute learning across that continuum, taking us to a very different place. Distributed learning is now text-computer-online-networked-audioconference-videoconference-classroom-workplace. The capacity to teach by teleconference or video conference brought us back to the classroom, but the classroom is no longer here, the classroom is now out there. Some learning taxonomies involve the use of technology and learning support. Smartphones are now a learning instrument for students and a tool for physicians to reach rural communities.

Education is not the filling of a pail; rather, it is the lighting of a fire. Distributed learning allows us to light the fire in so many different ways other than reading a book.

## Technology in Education and Innovative Responses to Human Resources for Health Needs

*Laura Morán, President, Latin American Association of Schools and Colleges of Nursing (ALADEFE)*

Dr. Morán indicated that several authors have pointed out the need to introduce new technologies in the process of clinical teaching and exploration of the possibilities of collaborative work among professionals.

To move forward in this area, universities and institutions of higher education must incorporate innovation and reinvention processes based on a number of factors, as follows.

Current health care scenarios demand new paradigms, in terms of both health care and formation of professionals in the health sector.

The education of professionals in health requires incorporating knowledge, abilities, attitudes, and values and introducing new technologies in the process of clinical teaching. Also, it requires exploring the possibility of interprofessional collaborative work. At the macro level, innovation and reinvention of processes in higher education institutions are necessary, along with intersectoral work, educational projects that modify the relationships between social needs and job markets, and flexibility in teaching. At the micro level, it is necessary to train professionals who are capable of adapting to complex and uncertain situations. Establishing new models and teaching methodologies in college programs and graduate-level courses leads to enterprising solutions.

It has been demonstrated that clinical simulation in nursing has allowed students to develop the **capacity for analysis, synthesis, and decision making**, which are the axes of creation of a pedagogical tool that incorporates **clinical reasoning**.

**DESIGN  
AND EVALUATION  
OF THE SIMULATED  
CLINIC EXPERIENCE  
AND ROLE PLAYING**



Technology in education has accelerated at a dizzying pace and permeated all aspects of society, and it has become increasingly necessary to educate professors.

The educational technologies used in the health sciences can be grouped into clinical simulation and virtual learning with multimedia or Internet (e-learning) material. One of the major benefits of these technologies is that they promote new forms of production and knowledge management.

Clinical simulation not only deals with clinical, hospital, and other aspects related to empirical knowledge of health, it also involves the development of attitudes and communication skills. Communication skills can be approached through clinical simulation and aspects of favorable or unfavorable attitudes toward practicing the health profession.

Innovation is health, and to innovate means breaking structures. Implementing know-how can be a catalyst, but the effective use of technology in universities requires a paradigm shift to one of teaching and learning.

## Transformative Education: Technology in Self-Learning and Faculty Development

*Erica Wheeler, Advisor, Human Resources for Health, PAHO's Sub Regional Programme Coordination, Barbados*

Dr. Wheeler showed the website for the interactive ePlatform for WHO's guidelines on transforming and scaling up health professionals' education and training. She explained how technology was used in developing the ePlatform to reach out and educate health professionals, join students and researchers, and build a wider

Transformative Education for Health Professionals

WHO Guidelines | Resources | Multimedia | Case studies | Blog | Ebook on SDH | WHO Disclaimer

**Breaking News** [See More](#)

Education and training is at the centre of global agenda: follow news on UN Commission and WHO Global Strategy on Human Resources for Health.

TO SDH WIKI | STAY CONNECTED | VIDEOS | CASE STUDY MAP

**Thematic areas**

- Students: transforming health workforce education for the future
- Social determinants of health
- eLearning / ICT for Health
- Interprofessional education
- Community based and health systems education
- Social accountability
- Civil society suggestions

**eBook Agile Development Summary**

Participate in the agile development process of an eBook on Integrating the social determinants of health approach in health workforce education. Each month we give an update on the discussions, events, reports and case studies. Join Us!

Name \*

E-mail \*

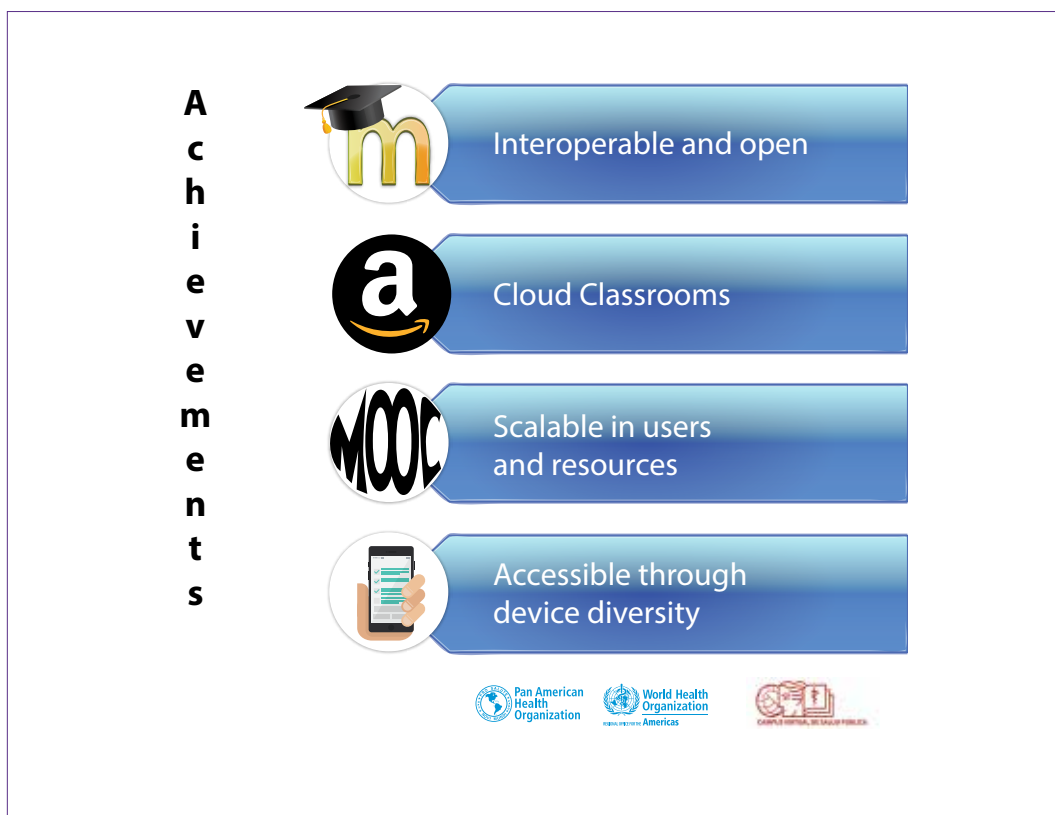
audience. The interactive ePlatform is linked to WHO's website for feedback and comments. It provides sound policy and technical guidance in the area of pre-service education, particularly to countries experiencing shortages of doctors, nurses, midwives, and other health professionals. It also guides countries on how to integrate continuing professional development as part of scaling up the education of medical, nursing, midwifery, and other health professionals in order to ensure excellence of care, responsive health service delivery, and sustainable health systems.

The ePlatform offers a library of videos and images, a blog, and a section dedicated to social determinants. It also has sections focusing on e-learning, interprofessional education, community-based health systems education, and social accountability, among other topics.

## Transformative Education: Technology in Self-Learning and Faculty Development

*Gabriel Listovsky, Coordinator, Virtual Campus for Public Health, PAHO/WHO*

The Virtual Public Health Campus (VPHC) is an initiative and instrument for the technical cooperation of PAHO and the countries of the Region that strives to advance permanent education programs, in-service training, and distance learning in public health. It is designed as a network of nodes, with a regional integration node administered by PAHO/WHO and country or institutional nodes for sharing, collaborating on, and creating educational processes in public health. The network encompasses more than 160 public



health institutions. The VPHC has more than 260,000 participants who have completed some of the virtual courses using the web and other applications designed for mobile devices.

The educational offerings of the network enable support of different implementation modalities, based on the potential of the virtual environment and fitted to the different educational proposals and needs of countries and institutions. They include:

- in-person training courses or programs that incorporate systematic learning and monitoring activities through the virtual environment and its different networked knowledge and communication resources;
- courses held entirely in the virtual environment, with guidance and tutoring and defined groups of participants;
- self-guided courses with free and individual access, making use of different available materials and personal searches for information sources; and
- virtual courses that include different phases or segments of in-person work.

It would be interesting to define how the current students are learning, what resources they are using, and in which direction we will focus our efforts. We should consider and offer products that articulate materials for the academic institution, teaching teams, and students and ensure that they are available in different devices. We should train teachers by opening doors to various work alternatives and thinking about democratization of access.

## Working Group Discussions

### *What are the trends in and challenges of health education?*

**Trends:** The trends in health education are towards virtualization, dynamic master spaces, teaching according to competencies, IPE, simulations, and reductions of deadlines in teaching. Some older professors are unwilling to change or adapt to changes in technology.

From the academic perspective and the ministry of health perspective, three specific trends are of note: competency-based education, adaptation of curricular changes that have been produced in the academy to the needs of the health services within the framework of countries' priorities, and incorporation of technologies.

**Challenges:** In terms of challenges, there is a need to develop updated materials, dynamic tools for teaching, forums, PowerPoint tools, and fieldwork, as well as a need to adapt to new technologies and modify the academic curriculum toward interprofessional education and use of new technologies. In addition, it is necessary to develop skills and knowledge among teachers, students, professionals, and managers who do not use information technologies. Training and continuing education of teaching personnel in universities and ministries of health should incorporate technology and interprofessional education. There are cultural challenges as well. Some students may embrace the new technology; others, however, including professors, are fearful of using new technology.



*Which actions and recommendations should be taken?*

**Actions and recommendations:** The training of teachers is important and should be obligatory. New pedagogical strategies and technologies should be incorporated. Professors should receive training on information technologies. Methodological strategies to achieve effective alignment among participants should be developed; restructuring health services is necessary. There is a need to provide spaces for dialogue between regulators and politicians, as well as those to whom policies are directed, so that decisions can be made in a more participatory manner.

We need to create collaborative groups between institutions and between countries with a perspective of international cooperation. We need to create self-spaces for people who can learn new technologies. Finally, we need to use interprofessional team-based principles to work around professors who will not change.

# Annex

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# AGENDA

## Background

The Pan American Health Organization/World Health Organization (PAHO/WHO) constantly provides support to the countries in the Region of the Americas to improve health outcomes through the strengthening of health systems. The Unit of Human Resources for Health (HSS/HR) promotes and contributes to the Organization-wide effort to strengthen health workforce capacities in order to achieve universal access to health and universal health coverage (universal health) in the countries of the Region.

Innovative approaches that help develop policies and programs to bolster the global health workforce are needed. Interprofessional collaboration is recognized as an innovative strategy and one of the most promising solutions to help mitigate the global health workforce crisis. Collaborative practice in health care occurs when professionals of different backgrounds come together to provide comprehensive services by working with patients, their families, and communities to deliver the highest quality of care across settings.

Interprofessional health care teams understand how to optimize the skills of their members to provide holistic, patient-centered, and high-quality health services. In this regard, Interprofessional Education (IPE) is a necessary step in developing a health workforce that is well prepared to respond to local health needs in a dynamic environment. Thus, IPE is an important strategy to improve human resources for health capacities and health outcomes and, ultimately, strengthen health systems.

PAHO/WHO has been discussing a new regional agenda on human resources for health within the framework of the Global Strategy on Human Resources for Health and universal health. According to WHO, the widespread adoption of an IPE model is urgently needed. Therefore, the initiative to start the discussion of interprofessional education in the Region of the Americas will be in alignment with the new regional and global human resources for health strategies.

## Objectives

The purpose of this meeting is to solicit input and stimulate discussion from the participants to understand the context of IPE in different countries. A major focus of the meeting will be to learn from countries that have experience in IPE and collaborative practice and identify challenges, barriers, and facilitating factors that exist in practice and at the education and policy levels in the Region. During the last day, a discussion will be held on technology and health sciences education and on the role of PALTEX in providing access to this technology.

## Results

PAHO/WHO will develop a document of recommendations for the implementation of IPE programs and policies in Latin America and the Caribbean. PAHO/WHO will also establish a technical group that will propose initiatives to develop and improve IPE in the Americas, with the goal of promoting access to interprofessional health teams and therefore strengthening health care and systems.

## Target Audience

Representatives of the ministries of health, ministries of education, professional associations, and academic institutions from the countries of Latin America and the Caribbean.

## Methodology

- Regional technical meeting
- Individual presentations and panels
- Group and plenary discussions

## Organization

The Pan American Health Organization/World Health Organization is promoting this meeting through the Unit of Human Resources for Health, Department of Health Systems and Services, in collaboration with the University of Washington School of Nursing (UWSON).

## Place

### **Hotel Cosmo 100**

Ac. 100 #19a83, Bogotá, Colombia

Phone: +57 1 6444000

# AGENDA

## Day 1 - Wednesday, 7 December 2016

- 08:00-08:30** *Participant registration*
- 08:30-08:45** **Welcome**  
*Gina Watson, PAHO/WHO Representative in Colombia*  
*James Fitzgerald, Director, Department of Health Systems and Services, PAHO/WHO*  
*Silvia Cassiani, Regional Advisor on Nursing and Allied Health Personnel, PAHO/WHO*
- 08:45-09:20** **Agenda, Logistics, and Participant Introductions**  
*Azita Emami, Dean, University of Washington School of Nursing*  
*Brenda Zierler, Director of Research and Training, Center for Health Sciences Interprofessional Education, Research, and Practice (CHSIERP), University of Washington*  
*Sabrina Mikael, International Consultant, Unit of Human Resources for Health, PAHO/WHO*
- 09:20-09:40** **Rationale for Interprofessional Education**  
*Malcolm Cox, Co-Chair, Global Forum on Innovation in Health Professions Education, National Academy of Medicine (NAM), United States of America*  
*Moderator: Arlindo Phillip, Full Professor, School of Public Health, Universidade São Paulo*  
**Objective 1:** *Define and describe IPE and its relationship to team-based collaborative care*  
**Objective 2:** *Review the evidence for the effectiveness of IPE in enhancing patient and population health outcomes*
- 09:40-10:00** **Framework for Interprofessional Education and Collaboration Nationally, Regionally, and Globally**  
*John Gilbert, Professor Emeritus, University of British Columbia, and Founding Chair, Canadian Interprofessional Health Collaborative*  
*Moderator: CHILE - Eduardo Tobar Almonacid, Academic Director, School of Medicine, Universidad de Chile*  
**Objective 1:** *Discuss how IPE can be designed to produce a global health workforce prepared for collaborative practice*  
**Objective 2:** *Describe the WHO Framework for Action on Interprofessional Education and Collaborative Practice, provide examples of where it has been implemented, and discuss how policy barriers can affect IPE*

- 10:00-10:20**                      **Foundation for Interprofessional Education: Individual and Institutional Attributes, Resources, and Commitments Supporting Team Science**  
*Mayumi Willgerodt, Professor, University of Washington School of Nursing*  
*Moderator: MEXICO - Ricardo Octavio Morales Carmona, Associate General Director, Directorate General for Quality and Health Education, Secretary of Health*  
**Objective 1:** *Discuss the institutional resources and strategies needed to support IPE implementation, development, and evaluation*  
**Objective 2:** *Identify individual, institutional, and policy barriers that need to be overcome for sustaining IPE*
- 10:20-10:35**                      *Coffee break*
- 10:35-12:30**                      *IPE - Working groups and discussions*  
**Objective 1:** *Discuss the current state of health education and the role of IPE in transforming and scaling up health professionals' education and training*  
**Objective 2:** *Discuss the meaning of IPE within the institutional context*
- 12:30-13:30**                      *Lunch*
- 13:30-13:50**                      **Interprofessional Faculty Development**  
*Brenda Zierler, Director of Research and Training, CHSIERP, University of Washington*  
*Moderator: COSTA RICA - Lizbeth Salazar, Director, School of Medicine, Universidad de Costa Rica*  
**Objective 1:** *Discuss and identify the necessary skill set for teaching in an IPE environment and the individual and institutional barriers that affect IPE*  
**Objective 2:** *Discuss approaches for preparing health professions faculty and collaborative practice clinicians to lead IPE efforts and promote interprofessional team-based care*
- 13:50 -14:20**                      **PANEL: Designing and Implementing an Interprofessional Education Curriculum**  
*Malcolm Cox, Co-Chair, Global Forum on Innovation in Health Professions Education, NAM*  
*Brenda Zierler, Director of Research and Training, CHSIERP, University of Washington*  
*Moderator: BRAZIL - Erika Rodrigues de Almeida, General Coordinator of Expansion and Management of Education in Health, Secretariat of Higher Education, Ministry of Education, Brazil*  
**Objective 1:** *Examine an IPE conceptual model that encompasses the education-to-practice continuum*  
**Objective 2:** *Discuss an IPE conceptual framework that describes the intersections of IPE with foundational, undergraduate, and graduate education and continuing professional development*

- 14:20 -14:40**                    **Transforming and Scaling Up Health Professionals' Education and Training**  
*Erica Wheeler, Advisor, Human Resources for Health, PAHO's Sub Regional Programme Coordination, Barbados*  
*Moderator: URUGUAY - Mercedes Pérez, Dean, School of Nursing, Universidad de la Republica*  
**Objective 1:** *Briefly discuss the current state of health education globally and the specificities of the Region of the Americas*  
**Objective 2:** *Discuss the vision for transformative education and recommendations to transform and scale up health professionals' education and training*
- 14:40 -15:45**                    *IPE - Working groups and discussions*  
**Objective 1:** *Describe opportunities, challenges, barriers, and facilitating factors for developing and implementing IPE curricula*  
**Objective 2:** *Discuss the opportunities and challenges for interprofessional faculty development within the institutional context*
- 15:45 -16:00**                    *Coffee break*
- 16:00-17:30**                    *IPE - Working groups and discussions (continuation)*

# AGENDA

## Day 2 - Thursday, 8 December 2016

08:00-09:45

### **PANEL: Country Experiences on Interprofessional Education**

*Moderator: PERU - María Paola Lucía Llosa Isenrich, Dean, School of Medicine Alberto Hurtado, Universidad Peruana Cayetano Heredia*

#### **Argentina: Interprofessional Education and Collaborative Practice**

*Larisa Carrera, Dean, School of Medical Sciences, Universidad Nacional del Litoral*

**Objective 1:** *Discuss the current state and policies supporting and hindering IPE in Argentina*

**Objective 2:** *Describe the positive and negative lessons learned from establishing IPE and collaborative practice in Argentina*

#### **Spain: Public Health and Interprofessional Education**

*Juan Jose Beunza, Director, Interprofessional Collaboration and Practice Program, School of Biomedical Sciences and Health, Universidad Europea*

**Objective 1:** *Discuss the vision and goals for integrating IPE into the public health sector to address health outcomes*

**Objective 2:** *Describe the benefits of and challenges for public health in adopting IPE*

#### **Chile: Interprofessional Education in Health Sciences Education**

*Eduardo Tobar Almonacid, Academic Director, School of Medicine, Universidad de Chile*

**Objective 1:** *Discuss the implementation and current state of IPE in Chile*

**Objective 2:** *Describe the benefits of and challenges in adopting IPE*

#### **Brazil: Interprofessional Education Initiatives**

*Marcelo Viana da Costa, Professor of Master in Teaching in Health, Universidade Federal de Rio Grande do Norte*

**Objective 1:** *Discuss the current state and policies supporting and hindering IPE in Brazil*

**Objective 2:** *Identify opportunities to collaborate in the implementation and evaluation of IPE*

#### **United Kingdom: Centre for the Advancement of Interprofessional Education (CAIPE)**

*Elizabeth Anderson, Professor of Interprofessional Education, College of Medicine, Biological Sciences and Psychology, University of Leicester*

**Objective 1:** *Discuss the vision and goals of CAIPE to promote IPE and collaborative practice in Europe*

**Objective 2:** *Describe the positive and negative lessons learned from establishing a national IPE center*

**Canada: Canadian Interprofessional Health Collaborative (CIHC)**

*John Gilbert, Professor Emeritus, University of British Columbia, and Founding Chair, Canadian Interprofessional Health Collaborative*

**Objective 1:** Describe strategies used and barriers faced in aligning IPE with collaborative practice to transform health care in Canada

**Objective 2:** Discuss the vision and goals of the CIHC to promote IPE leadership in Canada

**09:45-10:45**

*IPE - Working groups and discussions*

**Objective 1:** Compare and contrast approaches to IPE and collaborative practice from multiple international perspectives

**Objective 2:** Discuss strategies and approaches to IPE within the institutional context

**10:45-11:00**

*Coffee break*

**11:00-12:00**

*IPE - Working groups and discussions (continuation)*

**12:00-13:00**

*Lunch*

**13:00-13:20****Regulation of Health Professional Practice and Collaborative Practice Implications**

*Hernán Sepúlveda, Regional Advisor on Human Resources for Health, PAHO/WHO*

*Moderator: PERU - Manuel León Nuñez Vergara, Director of International Relations, School of Medicine, Universidad Nacional Mayor de San Marcos Nunez*

**Objective 1:** Identify the action framework of professional regulation in different countries throughout the Region

**Objective 2:** Discuss the implications of professional regulation in collaborative practice

**13:20-13:40****Interprofessional Health Team Management**

*Brenda Zierler, Director of Research and Training, CHSIERP, University of Washington*

*Moderator: COSTA RICA - Sinaí Valverde Ceciliano, Direction of Guarantee of Access to Health Services (DGASS), Ministry of Health*

**Objective 1:** Describe interprofessional health team management models and implications of their implementation and development

**Objective 2:** Describe the positive and negative lessons learned from establishing interprofessional health team management models

**13:40-14:40**

*IPE - Working groups and discussions*

**Objective 1:** Discuss interprofessional health team management models and lessons learned from their implementation

**Objective 2:** Discuss the impact of health professions regulation in the context of collaborative practice

**14:40-15:00**

*Coffee break*



**15:00-17:00**

*IPE - Presentation Work Groups and Discussions*

*Moderators:*

*COLOMBIA - Francisco Ariza Montoya, Group Coordinator for Development of Human Capacity in Health, Ministry of Health and Social Protection*

*PANAMA - Daniel Purcallas, Coordinator, Faculty of Medical Sciences, Universidad Latina de Panamá*

**Objective 1:** *How to develop and implement IPE in the Region*

**Objective 2:** *Identify potential partnerships among and within countries to implement and develop IPE*

**Objective 3:** *Discuss IPE viability and impact in education and opportunities for building the health care workforce of the future*

**17:00-18:00**

**Next Steps and Recommendations**

*Silvia Cassiani, Regional Advisor on Nursing and Allied Health Personnel, PAHO/WHO*

*Sabrina Mikael, International Consultant, Unit of Human Resources for Health, PAHO/WHO*

*Brenda Zierler, Director of Research and Training, CHSIERP, University of Washington*

*Moderators:*

*ARGENTINA - Marcela Groppo, Director of Accreditation, National Commission for University Evaluation and Accreditation, Ministry of Education and Sports*

*BRAZIL - Cláudia Brandão Gonçalves, Director of the Department of Health Education Management - Substitute, Secretary of Labor Management and Health Education (SGTES)*

*Ministry of Health*

*PANAMA - Rigoberto Centeno, Columbus University and Universidad Latina, Panamanian Public Health Society*

**Objective 1:** *Summarize the meeting objectives and processes used to meet the learning objectives*

**Objective 2:** *Identify opportunities for collaborations between various countries to promote IPE and collaborative practice*

**Objective 3:** *Discuss the establishment of a technical group to support PAHO/WHO activities regarding IPE*

# AGENDA

## Day 3 - Friday, 9 December 2016

- 08:30-08:45**                      **Health Sciences Education to Achieve Universal Health**  
*Gina Watson, PAHO/WHO Representative in Colombia*
- 08:45- 09:00**                      **Trends and Challenges in Health Science Education: The Role of PALTEX**  
*Silvia Cassiani, Regional Coordinator, PALTEX, PAHO/WHO*
- 09:00-09:30**                      **Technology in Education and Innovative Responses to Human Resources for Health Needs**  
*John Gilbert, Professor Emeritus, University of British Columbia, and Founding Chair, Canadian Interprofessional Health Collaborative*  
*Laura Morán, President, Latin American Association of Schools and Colleges of Nursing (ALADEFE)*
- 09:30-10:30**                      *PALTEX - Working groups, presentations, and discussions*
- 10:30-10:45**                      *Coffee break*
- 10:45-12:00**                      *PALTEX - Working groups, presentations, and discussions*
- 12:00-13:00**                      *Lunch*
- 13:00-14:00**                      **Transformative Education: Technology in Self-Learning and Faculty Development**  
*Erica Wheeler, Advisor, Human Resources for Health, PAHO's Sub Regional Programme Coordination, Barbados*  
*Gabriel Listovsky, Coordinator, Virtual Campus for Public Health, PAHO/WHO*
- 14:00-16:00**                      *PALTEX - Working groups, presentations, and discussions*
- 16:00-16:15**                      *Coffee break*
- 16:15-17:00**                      **Conclusions**  
*Silvia Cassiani, Regional Coordinator, PALTEX, PAHO/WHO*
- 17:00-17:30**                      **Closing Remarks**  
*James Fitzgerald, Director, Department of Health Systems and Services, PAHO/WHO*  
*Fernando Menezes, Unit Chief, Unit of Human Resources for Health, PAHO/WHO*



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# References

1. World Health Organization. Global Strategy on Human Resources for Health: Workforce 2030. Geneva: WHO; 2014. Available from: <http://apps.who.int/iris/bitstream/10665/250368/1/9789241511131-eng.pdf>
2. World Health Organization. Strategy for Universal Access to Health and Universal Health Coverage, 53rd Directing Council, 66th Session of the Regional Committee of the Americas, 29 September-3 October 2014, Washington, D.C. Available from: <http://www.paho.org/uhexchange/index.php/es/uhexchange-documents/technical-information/26-strategy-for-universal-access-to-health-and-universal-health-coverage/file>
3. Institute of Medicine. Measuring the impact of IPE on collaborative practice and patient outcomes. Washington, D.C.: National Academies Press; 2015.
4. World Health Organization. Transforming health workforce education in support of universal health coverage. WHA66.23, 66th World Health Assembly, May 2013. Available from: [http://apps.who.int/gb/ebwha/pdf\\_files/WHA66/A66\\_R23-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R23-en.pdf)
5. Barr H, Beunza J. La educación interprofesional: una visión económica. La triple meta para el futuro de la sanidad. *Papeles de Economía Española*. 2014;142: 94-101.
6. Reeves S, Fletcher S, Barr H, Birch I, Boet E, Davies N, et al. A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. *Medical Teacher*. 2016;38(7):656-668.
7. Murphy GT, Alder R, MacKenzie A, Rigby J. Model of Care Initiative in Nova Scotia (MOCINS): Final Evaluation Report. Halifax: Nova Scotia Department of Health; 2010.
8. Advisory Committee on Health Delivery and Human Resources. How many are enough? Redefining self-sufficiency for the health workforce. Available from: [https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/hcs-sss/alt\\_formats/pdf/pubs/hhrhs/2009-self-sufficiency-autosuffisance/2009-hme-eng.pdf](https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/hcs-sss/alt_formats/pdf/pubs/hhrhs/2009-self-sufficiency-autosuffisance/2009-hme-eng.pdf)
9. Pan American Health Organization/World Health Organization. Human Resources for Health: Increasing Access to Qualified Health Workers in Primary Health Care-Based Health Systems, Resolution CD52.R13, 52nd PAHO/WHO Directing Council, 2013, Washington, D.C. Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/4441/CD52-R13-eng.pdf?sequence=1&isAllowed=y>
10. Pan American Health Organization/World Health Organization. Strategy for Universal Access to Health and Universal Health Coverage, Resolution CD53.R14, 53rd PAHO/WHO Directing Council, 2014, Washington, D.C.



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