

# 2<sup>nd</sup> Latin-American Conference on Research and Innovation for Health

Panama, 23-25 November, 2011



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Panama 23-25, November, 2011

## Acknowledgements

This technical report gathers together the contributions made by speakers and attendees at the 2<sup>nd</sup> Latin-American Conference on 'Research and Innovation for Health', held in Panama City, Panama, 23- 25 November 2011. The Conference was coordinated by the National Science, Technology and Innovation Secretariat of Panama, the Council on Health Research for Development (COHRED), the Ministries of Health for Panama and Brazil, the Gorgas Memorial Institute in Panama and the Pan American Health Organisation/World Health Organisation (PAHO/WHO). Financial support to the Conference was provided by COHRED with the aid of funding from the World Bank, the National Secretariat for Science, Technology and Innovation of Panama and Brazil's Ministry of Health.

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## Key Words

National Health Research Systems, Research and Innovation for Health, Human Resources for Health Research, Financing for Health Research, Knowledge Transfer and Translation, Latin America.

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## Background

*Opening was made by First Lady of the Republic of Panama, Mrs Martinelli, with her, PAHO Representative in Panama, the Minister of Health of Panama, the National Secretary for Science, Technology and Innovation of Panama, and a Representative of COHRED*

At the 1<sup>st</sup> Latin American Conference on Research and Innovation for Health, held in Rio de Janeiro, Brazil in April 2008, participants highlighted the progress achieved in national research for health systems in the region and the importance of initiating action to strengthen them. Among the contributions constituting an important precedent for this 2<sup>nd</sup> Conference was the need for technical cooperation among countries in the region. It was also argued that it was necessary to organise such fora in other countries in the region and that in doing so there should be some continuity in terms of the issues that are discussed and the

actions that are agreed upon. As such, one of the agreements from the conference in Rio de Janeiro was the organisation of the 2<sup>nd</sup> Latin American Conference on Research and Innovation for Health. It was suggested that this second conference would convene as many participants as possible and seek to follow up on the actions from the first conference. It is also in this regard that representatives from the Latin American and Caribbean region participated in a follow-up review meeting to the 1<sup>st</sup> Conference, this meeting was held as part of the Global Forum for Health Research 2009, which took place in Cuba in November 2009.



## Summary

The 2<sup>nd</sup> Latin American Conference on 'Research and Innovation for Health' focused its attention on three fundamental themes: a) mechanisms linking innovation to health policy, b) mechanisms for funding innovation and research, and c) international cooperation as a means to strengthen innovation and research.

The meeting took place in Panama City, Panama, from the 23<sup>rd</sup> to the 25<sup>th</sup> of November 2011 and it brought together approximately 100 professionals from institutions and strategic programmes on research for health, science and technology. It was attended by representatives from agencies, institutions and international cooperation organs, networks and regional, national and global research organisations, including some non-governmental organisations.



The central focus of the conference was devoted to deepening the concept of innovation for health, whilst linking it to the generation of new solutions to health problems, including not only tangible products, but also public goods, work processes, organisational behavior and the behaviour of people that are associated with health services. Innovation creates new products, new results and new services, and it is the simple and low-cost solutions to problems that can be of the most value to society.

The first thematic axis of the conference refers to the relationship between innovation and policy. Participants noted that most countries in the region were well placed to broaden the traditional linkages between academia and the private sector - in order to have the required communication that involves academia, business, society and government. In the Latin American region, there are several examples of successful partnerships between the public and the private sectors on how to provide solutions to health problems. In these linkages, it is necessary to solve, for example, the knowledge gaps that the researcher may experience, for instance around issues concerning the administration and the transfer of technology, the shortage of funds and the lack of knowledge about administration and patent registration.

The second thematic axis called for answers about the successful financing mechanisms in the region. The presentations and discussion of participants showed that the set-up of funds from a mixed pool of sources (private, public, donors) has been a common strategy in some countries in the region although some have only just recently begun to undertake their implementation. Participants noted that while this approach has been found to increase financial resources, these are still insufficient. In addition, the impact of the work done through the proposals that have benefitted from these funds is unknown.

The research community was urged to undertake studies evaluating the effectiveness of these funds and on how we should raise the capacity to manage resources for research and innovation.

In the third central thematic axis, questions were identified about international cooperation and its attention to local research priorities. With regard to this point, the participants felt that there are few experiences of regional cooperation, which they considered to be an essential resource for strengthening innovation for research for health. It is important that international

cooperation is aligned to the needs of the country and the region. Latin American countries have not fully explored the possibilities of opening up South-South technical cooperation. The procedure of calling for international funding should take as its point of departure the context of the global health challenges and crucially, the analysis of how these are manifested in our countries and the kind of responses that are required at the local level. This would increase the chances of obtaining funding resources for the countries of the region.

The existing cooperation entities, such as the Council of Ministers of Central America and Dominican Republic (COMISCA), the Mesoamerican Public Health System, among others, should be well utilised to provide greater visibility for research efforts in the country and the region. The Academia should undertake a thorough process of promoting and communicating their achievements to the decision makers from different policy administration systems and the general population. It is necessary for society to value, in its broadest conception, the researcher's work and the valuable contributions that the research offers to society.

Crucially, this conference featured discussions on the resources required to support research and innovation for health such as researchers' networks and the online platform Health Research Web (HRWeb), designed and operated by COHRED. This site compiles information on: research and innovation projects, reviews and evaluations of proposals, funding sources, governance structures

and the key institutions of the countries. It is the first information system that offers an integral and complete vision of the research for health systems linked to policies, resources, and institutional frameworks. The process of feeding data into the system is participatory and interactive.

Finally, discussions were also held on the creation of the Latin American Association of Global Health (ALASAG). This is a valuable resource for promoting regional cooperation with the vision of projecting the development of research and innovation so as to address the health challenges in the region. In addition, the Iberoamerican Ministerial Network for Health Education and Research (RIMAIS) has defined the education and training of professionals in the field of research, as its strategic area. Its main activities have been the training in administration of national research for health systems, the integrated analysis of these systems, the compilation of regulations on ethics, and the elaboration of a system of indicators for research for health.

The future challenge for COHRED and for the players convened at the last two Latin American conferences is to strengthen the ongoing work in networking in order to channel cooperation activities aimed at: a) strengthening the link between research and innovation with health policies, b) integrating training programs for young researchers, and c) increasing the capacity for managing the financial resources of the institutions and researchers in the region.

*The dialogue between strategic actors involved in: the development of processes for research development, the management of scientific and technological policies at local, regional and international levels, as well as the international cooperation organisations - managed to provide a well structured view of the current conditions of innovation including the challenges.*

## Format and dynamics of the sessions

One of the innovative aspects of this conference has been the working methodology designed for the plenary sessions as well as the approach taken to the working groups that were based on individual and collective contributions from the participants. This change in format was applied in order to make the most of each participant's contribution.

The first plenary session was held in the format commonly referred to as Davos style, which consists of a presentation by a coordinator or chair of four panelists that are seated in front of the audience. In turn, the audience is seated in an auditorium style format. This created a public space through which the panelists could easily engage with the audience. The panelists offered a presentation of no more than 12 minutes, answered questions previously assigned by the organisers and, at the end of the panel presentations, the audience members had a dialogue with them, asking questions or expressing comments. This dynamic allows open conversations through which all those involved could reflect on the questions posed to the speakers. The contributions of the audience complemented and enriched the presentations and the ideas expressed.

The plenary sessions on the second day of the conference were based on a conference / workshop approach that is known as fishbowl. This approach involves a small group of people (usually 5-8) seated in circle, having a conversation in full view of a larger group of listeners. Fishbowl processes provide a creative way to include the 'public' in a small group discussion. The fishbowl approach is based

on the presence of a central space that is occupied by the panelists and the coordinator of the meeting (known as 'the fish in the fishbowl'), and around them, in concentric circles, is the audience. This dynamic breaks the traditional podium rigidity and opens-up spaces for communication and personal, dynamic and interactive exchange among the participants.

The format of the working sessions in small groups consisted of a discussion of three topics corresponding to the thematic axes identified in the programme. Each axis had four questions that focused on issues and problems relevant to innovation and research for health in Latin America. Each question was assigned to a table around which the participants were grouped during a programmed time - the coordinator of the table would remain at a particular table. Participants moved from one table to another asking questions and making notes about key issues. With this kind of approach, it was possible for all the participants to contribute to the discussions going on at their tables and to answer the four questions posed in each thematic axis. The rapporteur to the group took note of the contributions, whilst the coordinator took note of the ideas from each new participant that joined

the table. This helped to avoid repetition and to make room for more contributions and new ideas. At the end of the working sessions for the four central themes, all of the coordinators and rapporteurs met to answer the 12 questions included in the four thematic axes. Towards the end of this report the contributions of all who attended these discussions are summarised. A representative of each thematic axis presented a synthesis of their main outcomes (ideas and actions) during the final plenary session of the conference. These outcomes are also presented at the end of this report.



*Participants at the opening of the conference*

## Main messages from the conference



### **1. Innovation in our countries must be simple and inexpensive**

The term innovation in research for health in low and middle-income countries, points to research that provides original findings to solve problems that represent a heavy social and economic burden on health systems. The innovative nature is not necessarily linked to high profile contributions, but rather simple proposals that solve complex problems.

### **2. Health Research and research for health are different concepts**

It is necessary to differentiate between the concepts of health research and research for health. They are two concepts with different meanings: the first carries a biomedical connotation and the second refers to research that is conducted in any area or sector with its results being used to solve health problems. (Bamako, 2008)

### **3. Strengthening innovation requires a tripartite alliance, academic, business and government**

Research and innovation open up an area for meetings and dialogue between academia, government and business. Traditionally, this alliance has been restricted to only business and academia; however it is necessary to start incorporating government. Civil society organisations have not, until now, been considered in this alliance and it would be advisable if they were, since it is society that can contribute to the assessment of relevance when applying the results of innovation and research.

### **4. Increased resources for research funding are still pending**

During the last decade, some countries have strengthened strategic research areas and allocated resources to this activity, but it continues to be insufficient. The optimal allocation of adequate financial resources for research funding remains an unresolved issue and the countries of the region still fail to exercise the 2% of health expenditure, as stated in international guidelines.

### **5. Linking research for health and health care**

We are at the right time to establish mechanisms to help coordinate and link health policies with research for health agendas, framed on regional and global policies in research for health.





## 6. Linking research for health to health priorities

Prioritising research for health must be closely coordinated with local health priorities and the health ministries are those who should lead it, summoning the professional groups from the health system, academia, business, society, users, managers and representatives of various social and economic sectors.

## 7. Strengthening South-South technical cooperation

It is necessary to foster cooperation among low and middle-income countries. We are at the best time to join forces and resources between countries in Asia, Africa and Latin America, and undertake innovative initiatives to help solve common health problems.

International cooperation, specifically regional cooperation, represents a valuable resource to strengthen the financial administration capacity of academia and government, especially when they are adapted to local and regional needs.

## 8. Promote the training of young researchers

The training of young researchers is an area that demands special attention in countries of the region. It is also a field that could constitute a regional programme in countries that now have formalised and stable research systems and they could design programmes and mechanisms to undertake a process of collaboration with countries that have initiated the formation of a professional research community. The promotion of scholarships in postgraduate programmes, visits or stays for a determined time could help to undertake research and development initiatives.

## 9. Multi-disciplinarity and multi-sectorality in the administration of health innovation and research

Health today represents a field that is not unique to medical schools or health ministries. Due to the size of many health problems that are determined by lifestyle, social and environmental factors, and social development, it is necessary to undertake scientific and technological administration in a multidisciplinary and multi-sectoral conception. The contribution of social sciences, political science, economics, education, environmental engineering, veterinary medicine, among others, is fundamental to achieving an integrated and comprehensive approach to health problems.

Wednesday the 23<sup>rd</sup> of November 2011

## Official inauguration

**MRS. MARTA LINARES DE MARTINELLI**, First Lady of the Republic of Panama

**DR. RUBÉN BERROCAL**, National Secretary of the National Secretariat for Science Technology and Innovation (SENACYT) in Panama

**DR. FRANKLIN VERGARA**, Minister of Health of the Republic of Panama

**DR. JOAQUÍN MOLINA**, Representative of PAHO/WHO in Panama

**DR. FRANCISCO SONGANE**, Representative of COHRED

The opening session was chaired by the First Lady of the Republic of Panama, Mrs. Marta Linares de Martinelli, who emphasised the social commitment of science, its benefits and progressive capacity to solve the social demands of our countries. She pointed out that: 'research and innovation are key resources to ensure better performance of local health systems and to consolidate a united continent around a common goal that consists of offering access to better health for marginalised groups and those with more vulnerability'.

Participants that spoke at this inaugural session highlighted issues that provided a valuable reference framework for the central themes of this meeting, such as:

- Talking about innovation in health is obligatory in our times;
- It is necessary to analyse the mechanisms through which we can strengthen national research for health systems, with a view to undertake innovative actions in the training of human resources for research, and to define better and more efficient knowledge transfer strategies;
- The global vision of science demands us to define long-term goals, that is why it is necessary to identify the resources that the Latin American region has as to firmly contribute in the strategic areas of science for development;
- Networks represent a flexible resource to increase communication and the capacity for the administration of resources for research.



*Mrs. Marta Linares de Martinelli, First Lady of the Republic of Panama*

In his message, Dr. Ruben Berrocal, National Secretary of Science, Technology, and Innovation (SENACYT) in Panama, pointed out that Latin America should take on the challenge of strengthening its research and innovation to achieve internationally competitive levels. The efforts made so far are evident, research activities are now institutionalised and recognised within countries and in the region. However, he also called for a global view of this process. To do this, he advised that Latin America should be open to learning from the experiences of other countries and continents. This includes the East Asian countries that have made remarkable development in the industrial-scientific-biological areas, which comprise of the pharmaceutical industry, medical research, biotechnology and nanotechnology, among others.

According to Dr. Berrocal, a very important aspect of scientific production and innovation is its real mission - which is to ensure better living conditions and welfare for the population. Only good quality research can improve the responsiveness of health systems in countries and also



Mrs. Marta Linares de Martinelli, First Lady of the Republic of Panama

expand access to health services for the population. The critical and conflicting point in science and technology in Latin America is the availability of resources for the financing of research and scientific development.

Dr. Franklin Vergara, Minister of Health of Panama, stressed that research for health is an essential function of public health and that it is mandatory to talk of innovation in research for health. Dr. Vergara also asserted that it was important for forums such the second Latin American conference to consider the problems affecting the development and growth of scientific production in countries and to assess if the prioritisation of the problems is appropriate to local needs. He reminded participants that the biggest challenge is to develop or strengthen research for health policies and government support to ensure adequate funding.



Dr. Ruben Berrocal, National Secretary of Science, Technology, and Innovation (SENACYT)

*“Research and innovation are key resources to ensure better performance of local health systems and to build a united continent around a common goal that consists of offering access to better health for marginalised groups and those with more vulnerability”.*

*- Mrs. Marta Linares de Martinelli,  
First Lady of the Republic of Panama*

On behalf of COHRED, Dr. Francisco Songane recalled the 1<sup>st</sup> Conference held in Rio de Janeiro, Brazil, in 2008, and then went on to assert that this second forum provided an opportunity for raising the level of contributions and ideas on how to create better local conditions, to facilitate the transformation of scientific evidence in innovation. According to Dr. Songane, when speaking of research for health we are emphasising a concept that goes beyond the health sector, it reinforces the importance of giving special attention to social determinants. This is important because its impact on the health of the people reflects a chain of events initiated elsewhere, where the administration of the health sector is more limited.

These conferences, along with those in Havana and Rio de Janeiro, organised by COHRED with PAHO/WHO and other partners, mark a continuation of discussions around strategic issues on how to strengthen the development of research and innovation.

Wednesday the 23<sup>rd</sup> of November 2011

First Session

# Innovation for research for health, is it possible in countries with low and middle incomes?

**CHAIR: FRANCISCO SONGANE**, Chair of the Forum 2012 Steering Committee, COHRED Group

## 1. The scientific and technological context in Panama

**RUBÉN BERROCAL**, National Secretary for Science, Technology, and Innovation (SENACYT), Panama

The central message from this session was that, research for health and innovation in Latin America is not only possible, but also necessary. The fundamental requirement is that government and the private sector, in coordination with academia, should invest in technology and innovation.

Despite the scientific contributions in the region, it should be there is an absence of a critical mass of high-level researchers. Less than 5% of global medical research is carried out in Latin America, where Brazil, Argentina, Mexico and Chile have a dominant share. Less than 1% of the publications produced in Latin America are now registered in MEDLINE, the information system with the greatest global recognition. Science and technology expenditure for almost all the countries in the region is less than 0.5% of the Gross Domestic Product (GDP), compared to 2-3% of the GDP in developed countries.

Panama has initiated an innovative process in the formulation of a National Strategic Plan on Science and Technology and has called on all sectors in the country to work with the Ministry of Health. It is this alignment with the government's strategic plan that has brought special attention to health issues and the training of professionals in the health sector.

Panama's plan has focused on the creation of a National Research System that is based on attending to the priority areas regarding the country's sustainable development, the strengthening of human resources training and also the strengthening of the science and technology infrastructure. A relevant example is the recent creation of the Panamanian Institute of Research for Science and Medicine (PRISM).

## 2. Challenges for national research for health in Latin American countries

**DAISY CORRALES**, Minister of Health, Costa Rica

An important feature in current scientific performance is its ability to deliver targeted results that support decision-making. Those who deal with the health needs of society are particularly worried about the reducing resources for investment and expenditures in health. Therefore, research itself becomes a valuable resource in offering solutions that are based on cost-effectiveness.

A major challenge for developing countries is to align these research results in order to carry out adequate resource allocation for local needs. Therefore, in times of crisis, when countries have fewer resources in all areas, research becomes an even more important resource.

Analyses on the ways in which science and public policy link to each other, show significant differences between high, low and middle-income countries. High-income countries have health policies and research agendas with defined priorities, established mechanisms for selecting, funding, and monitoring the quality of projects. They also have dedicated programmes to train researchers. In low and middle-income countries, performance levels have been improved and they have been characterised by the existence of a clear research for health policy. This has enabled these countries to narrow the gap between the knowledge generation and decision-making processes.

In most of the less developed countries there is no explicit policy on research for health; public funding is very low, research activity is concentrated in small groups of people at the universities, there are few incentives and research work is often not recognised.

In order to strengthen the research systems in the countries of the region, isolated actions should be avoided and what should be encouraged is the integration of decisions and actions into a national plan that involves various stakeholders. In this case, not only from the health field, but also from other sectors.





*Dr Francisco Songane chairing the Ministers' session. Dr Ruben Berrocal, Sc&T Panama; Dr Daisy Corrales, MOH Costa Rica; Dr Franklin Vergara, MOH Panama*

### 3. Innovation in research for health: from the standpoint of health policy

**FRANKLIN VERGARA**, Ministry of Health, Panama

The concept of innovation is understood here to mean a dynamic process through which an original idea can be nurtured to create significant new value for society. Innovation creates a new value proposition and it is linked to social and economic change. In Latin American countries with low and middle incomes, innovation is determined by setting priorities that reflect the relevant needs of the population.

In Panama, health policy is driven through axes that emphasise: the protection of the population, access to services, quality of the services and the promotion of health through social participation. One aspect of this policy explicitly outlines the strengthening of institutional capacity for research and technological development, and it establishes the following strategic objectives:

- a) to articulate the public and private sectors through capacity building of human capital;
- b) to generate new study fields by taking identified priorities into account;
- c) to evaluate and integrate the results of research and technological development;
- d) promote strategic alliances, and
- e) to promote a culture of research for health.

To achieve this, it is necessary to promote triple-helix development programmes, formed through strategic academia-industry-government (AIG) alliances. Coordinating funding sources for research development and innovation should also be addressed, as well as the development of a national programme to develop institutional research capacity and the creation of incentive programmes for new researchers for health.

*There are still some challenges to overcome, such as: the absence of an explicit policy on research for health funding, the lack of information and evidence to support decision making, and not clearly knowing the outcome of many of the research results.*

## Challenges faced by Latin American countries in strengthening innovation and research for health

- To consolidate a formal structure structure for stewardship and research for health management;
- Create and strengthen research for health and innovation systems, integrating the national science, technology, and innovation systems;
- Link research priorities with each country's economic and social development;
- Engage different stakeholders in the development of policies for research, development and innovation;
- Strengthen the legal framework and funding required to create the infrastructure of the research, development and innovation systems;
- Integrate research to teaching and service delivery;
- Monitor the ethical aspects of research;
- Improve the dissemination and use of research results;
- To implement agreements and form arrangements that dissemination of results.

*Daisy Corrales, Ministry of Health, Costa Rica*

### Participant comments:

- *"Innovation has traditionally been thought of as the production of new products, but it's time to look into this concept and associate it with the creation of new services and processes." (Moises Goldbaum, Brazil)*
- *"Reality shows us that, so far, the research we undertake in our countries does not necessarily solve social inequity problems as they pertain to global health matters; rather, efforts are in response to problems incorporated into international agendas". (Tomas Lopez-Pena, Spain)*
- *"We know that investments in health generate benefits that get reflected in other sectors. The question now is - how do we raise the visibility of those benefits?" (Luis Gabriel Cuervo, Advisor, PAHO/WHO)*
- *"It is necessary that this form of triple association -- academia, industry, government -- is applied, given that it encourages us to reflect on our research for health funding practices". (Mary de los Angeles Apólito, Argentina)*
- *"In the field of innovation, many regional institutes lack training in intellectual property and how to best credit researchers that are innovative especially if they are not working in the mainstream public sector". (Néstor Sosa, Panamá)*

## Second Session

# How to link innovation to policies for research for health? Advances in Latin America

**CHAIR, FRANCISCO BECERRA**, Head, Project and Programmes, COHRED

## Introduction

The rate at which countries in the region have linked the management of research results and technological innovations in local health markets and policies - has been different. Countries such as Brazil, Chile, and Mexico have created a structure for resources and processes that facilitate the link between academia and industry, or between academia and government. However, the current greatest challenge is to achieve a partnership between three key players: academia, industry, and government. The interests of each of these players are different. Academia is focused on the generation of new knowledge and training of researchers. Industry is focused on production levels and profitability. And government is focused on providing the population with improved access to, and quality in, public goods and services. Regardless of the difference in interests, these players are in constant search for a space in which to coordinate efforts that are aimed at incorporating innovations that could help raise standards in both the population's health and welfare.

Local research systems are used to find ways of managing, financing, and regulating the mechanisms for communication and collaboration on research. However, there are still some barriers that need to be addressed. These include: strengthening the quality of research proposals, streamlining management processes within research systems and improved communications within the academic community and among key players in policy and industry. In this session, panelists and participants agreed on the following:

- a) the need to strengthen communication between the parties of what we called the "triple helix" (AIG);
- b) that one of the biggest challenges in countries is the creation of regulatory resources to facilitate the management of transferring technology and results from academia to industry and government; and
- c) that intellectual property and patent registration knowledge needs to be strengthened.

It was noted that that most Latin American and Caribbean countries maintain low numbers for patent registration not only because of low innovation and production, but because of a shortage of funding resources that support technology transfer phases and the lack of a regulatory process.

## 1. Innovation in research for health: a societal perspective

**JOSEFINA COLOMA**, Executive Director of the Sustainable Sciences Institute (SSI)

Current health conditions require spaces for innovative responses stemming from local efforts that are based on a shared vision. This allows for the consideration of the principles of equity and participation - not only for those who generate innovation, but also for those (society) who use the innovations.

The classic model for innovation is characterised by the demand for a large, complex and high cost infrastructure. Results from experimental work on innovation have provided important contributions to our understanding of the links between innovation and humanity. These efforts must continue in order for us to benefit from the challenges that are posed by the complexity of health problems and diseases.

There are interesting examples of cases where alternative technologies have been achieved by simplifying pre-existing standard technology, such as the testing of saliva samples (instead of blood) for antibody detection, filtering paper for blood samples (diagnosis of malaria, dengue) among others. The same has happened in the field of information technology, where fingerprints are used instead of data to identify patients in medical records or electronic medical records (EMR). Other examples include laboratory inventory systems (LIMS) and the use of geographic information systems (GIS) to map locations for implementing epidemiological surveillance activities.

In global health, we see that many research agendas are determined by high-income countries and by global foundations that determine overall research priorities with a global vision. Given this trend, organisations such as the Sustainable Sciences Institute (SSI) must adapt their agendas to meet the immediate local needs.

Experiences have shown that an effective way to identify opportunities for innovation is to listen to local needs, identify technological options and analyse alternatives for adapting these innovations to the local needs. Innovation does not always have to be associated with a great discovery from a lab. It can also come from simple, almost seemingly trivial practices that are directed toward a real need, and are easily applied with real benefits for the population.

The final lesson from SSI is that the innovation generation should be performed in real time; the generated results should respond to a felt need and their usage should be long-term.

## 2. Innovation for health research from the perspective of Paraguay's science and technology policies

**ANTONIETA ROJAS DE ARIAS**, Directing Member of CONACYT, Paraguay, National Advisor to PAHO/WHO

Paraguay's Programme for the Support of Science, Technology and Innovation was established in 2007. In 2010, the Project for Technological Innovation and Assessment Conformity was created, and this year, the National Researchers' Incentives Programme (PRONII) was formed. From these initiatives, various calls for proposals and seed funding facilities have been developed in order to get businesses to team up with universities in their efforts to access seed funding and to participate in health innovation project proposals. Previously, these initiatives played primary or secondary roles in terms of their importance and this was often dependent on the total number of initiatives across all scientific areas.

One important development is the creation of the Fund for Structural Convergence (Fondo para la Convergencia Estructural - FOCEM) in Mercosur, which includes Argentina, Brazil, Paraguay, and Uruguay. This Fund responds to the socio-economic need of countries in the Southern Cone to build capacity and to offer solutions to the growing issue of an aging population, as well as to the current condition of chronic and infectious diseases, diagnosis, treatment and sanitary measures.

Much of the progress in developing a national policy for research for health in Paraguay was the result of collaboration and support from international organisations such as COHRED and PAHO / WHO. It is in this regard that the policy framework identified specific actions for the implementation of the National Research for Health System, as well as the National Council of Health Research, the National Researchers' for Health System, the National Ethics Committee and the Sectoral Fund in Support to Research for Health. Without a doubt, this country's advances in scientific innovation policies are related to the region's scientific and technological context.

## 3. Innovation as a driver for development: the case of Brazil

**HUDSON PACÍFICO DA SILVA**, General Coordinator for Health Technologies Evaluation, Ministry of Health, Brazil

The generation of scientific and technological knowledge in public and private institutions can create a complex playing field for innovation – for instance, when it comes to establishing a link between industry and academia. In this regard, innovations can actually enter the market and respond to the needs of the population, thereby contributing to economic and social development.

Brazil expresses favorable conditions for supporting an innovation policy with a strong impact. Added to this is the development of a platform for new paradigms (fine chemistry, biotechnology, electronics, nanotechnology, materials), and 25% of national research effort is focused on the health field.

However, Brazil has great social and economic inequalities, and has failed to guarantee access to health services. In addition, the risk of the fragmentation and isolation of research for health still persists when it comes to a national development model.

The research for health sector has succeeded in establishing a regulatory framework that is conducive to scientific production, innovation, international cooperation and the development of research activities. The incorporation of technologies into health care is well articulated as a result of this regulatory framework. For example, the framework has led to:

- a) the identification of incentives for innovation and for the production of goods for the health sector,
- b) the operation of a scientific network for science and technology,

- c) the promotion of access to and rational use of drugs and
- d) the introduction and withdrawal of sanitary technologies from the Unified Health System (SUS).

Since 2000, vigorous processes concerning the institutionalisation of research for health were kick-started and reflected in the creation of the Department of Science and Technology (DECyT) within the Ministry of Health. As a result, the ministry started to play a decisive role in strengthening scientific and technological activities in the country, which is supported by its close links with the programmes of the Ministry of Science and Technology. In 2004, the National Policy of Health Research and Scientific Innovation was approved. The technical documents and the final agenda were built through a participatory stakeholder process that included policy makers from academic, administrative and civic organisations. In 2009, guidelines for the management of health technology in the country were developed.

The results from this institutionalisation of innovation policy processes are as follows:

- The categorization and prioritisation of research topics,
- Support for developing research networks for malaria, cancer, dengue, clinical research, cell therapy, sexually transmitted diseases etc.,
- Support for the creation of institutes and research centres,
- Approval of the National Policy for Health Research and Scientific Innovation (2004) and the National Policy for Sanitary Technologies Management (2009),
- Multiple projects (4.314) funded by the Ministry of Health,
- Over 50% of funding for research for health comes from grants from the Ministry of Health (515 million USD invested in 2004-2011),
- This has resulted in 29 final products (28 drugs + IUD) which can be classified into 9 groups of priority SUS diseases (chronic, AIDS, mental health, etc.) resulting in public-private partnerships,
- Partnerships with public and private laboratories,
- 2.5 million USD from the Ministry of Health to promote strategic product innovation.

## 4. Research priorities – with a focus on innovation

**RAO K.S. JAGANNAYHA**, INICASAT Director, Panamá

Developed and developing countries are increasingly showing similar burdens of disease, so we must be increasingly competitive in our efforts at scientific production, and especially with regard to innovation. The Scientific Research and High Technology Services Institute of Panama (INDICASAT) was formed in 2002 by SENACYT to promote the development of science in Panama, based on the concept that the scientific development of a country is crucial to its economic and socio-cultural development.

In 2007, INDICASAT was legally reformed as the Public Interest Association (AIP) to facilitate the management of funding resources. Under the AIP model, INDICASAT can manage services provided to private companies in a timely manner, making purchases and expenditures with the agility required to meet the demands of a competitive market. At the same time, it manages funds provided by governmental companies in accordance with the laws of government on transparency. This has allowed for the positioning of INDICASAT-AIP as an organisation that can significantly contribute to Panama's social development through scientific production.

INDICASAT-AIP performs work in scientific research, clinical trials, and water analysis service delivery. It conducts programs on basic and applied research, as well as community-based research, technology, and innovation. It has areas for research on natural products, chemical research on drug discoveries, biotechnology, immunology, neuroscience, pharmacology, toxicology, and parasitology. Clinical trials are conducted in collaboration with drug and vaccine developing companies, and are intended to meet certain key standards concerning the safety and efficacy of new products.

In addition, the institute has the capacity to provide specialised services in various areas of chemistry and biology, such as water analysis, detection, and molecular characterisation of pathogens, among others.

One special programme is the masters and doctoral training course in clinical practice and bio-ethics. Support measures have also been designed and taken to the people through programmes in health education.



## Comments from the participants:

- *“In the field of innovation, simple initiatives are also complex, because there are many processes that do not directly depend on the researcher that generates them, but also on the other influences in society. It is therefore necessary to form a strategic partnership between strategic sectors. (Moisés Goldbaum, Brasil)*
- *Looking at innovation in the long term for our countries, you have to ask: What’s the incentive for researchers involved in these innovation processes to keep them in this field, especially when most of the incentives at Latin American universities focus on the number of publications? (Rosa Mayelin Guerra, Cuba)*
- *We need to take a look inside society to what it can reveal about understanding and valuing the role of the researcher.*
- *Innovation and the incorporation of new knowledge in society demand a coordinated participation between academia, industry, and government, not forgetting that the latter needs and values their benefits within the particularities of their cultural context. (Antonieta Rojas de Arias, Paraguay)*
- *The current challenge now is how to make health concerns also those of science and technology? (Hudson Pacifico da Silva, Brasil)*

## Key Questions

Local politics raise several questions regarding the strategic aspects of innovation in health research for the region:

- 1** How do we articulate the need to define research priorities while taking care to protect the researcher’s freedom?
- 2** How can academia approach the private sector?
- 3** How can industry see an opportunity in competitive research?
- 4** How do we create research groups made up of are true counterparts for regional initiatives?
- 5** What strategies should we use to raise the visibility of scientific and technological activities in our countries?
- 6** What strategies for locating funds for innovation are successful?

*María Antonieta Rojas, Paraguay*



Group work

Thursday, November 24<sup>th</sup>

Third Session

## Regional financing mechanisms. Have national programmes been successful in linking priorities to funding? Lessons learned.

**CHAIR: ELIANA MARTÍNEZ**, , University of Antioquia Researcher, Medellin, Colombia

### Introduction

A historic challenge for scientific and technological development in middle and low-income countries is the allocation of funding. We know that many early researchers in our countries were able to install their initial laboratories thanks to resources that came from international cooperation. As research work began to be part of public institutions, it had to overcome numerous administrative difficulties in order to create specific budget allocations for research. To date, there are still countries in the region that have no dedicated budget for research. To improve funding mechanisms for science and technology, some Latin American governments have been creating policies to encourage the development of projects aimed at solving problems of national importance. The figures for the first financing funds grew out of these policies - known by different names in the different countries of the region.

In this plenary session, interesting examples of the various modalities for financing were presented as potential options for other countries in the region that had not yet established any.



*Fish Bowl approach to the sessions, chairing is Dr Eliana Martínez, Colombia*

### 1. Sectoral Fund for Health Research and Social Security, México

**RODOLFO CANO**, Research Director, CCINSHAE and Administrative Secretary of the Governmental Fund for Health and Social Security in Mexico

For a long time, research was considered a source of knowledge emerging from the personal interests of a researcher who used to work individually or with a small group of collaborators. As research becomes part of institutional programmes and later, with the subsequent emergence of public funding, it is valued as an essential resource for solving national problems of high priority.

The Mexican sectoral fund establishes priorities in order to ensure a fair distribution and use of the scarce funding resources that are available in the country.

An ongoing challenge for the management of these public funds is achieving proper coordination between the researcher's vision - whose main concerns are scientific production, professional development, and retribution to society - and a system that gives special attention to an effective response to problems of greater economic and social burden.

The demand for research results and the prioritisation of health problems is set by the health sector - led by the Ministry of Health. Two premises that support this model's conception include: the first is that the health sector sets priorities and the second is that resources should help strengthen and complement existing infrastructure and resources in order to expand the country's capacity and potential for research.

The Health Sectoral Fund was created in Mexico through a trust fund that works to facilitate the availability of funding

for research whilst also helping to solve the habitual problems caused by having to use up the available budget within a year.

The trust is administered by the National Council for Science and Technology (CONACYT) with the participation of the following health sector organisations: the Ministry of Health through the Coordinator General of National Institutes of Health and High Specialty Hospitals, the Mexican Social Security Institute (IMSS) and the Institute for Security and Social Services for State Workers (ISSSTE). The resources provided by this fund are for the development of applied scientific research and technology development in health and social security.

CONACYT and health agencies put equal shares into the fund: CONACYT grants a peso for every peso given by the health sector. In order to manage this fund, a committee chaired by the Ministry of Health and members from each participating agency has been created. The committee also includes a scientific researcher that practices at the highest level of the National Research System, and an active member representing the private sector. It has two secretariats, one technical and one administrative, the former is in charge of issuing calls, organising the review process, and evaluating proposals. The second is in charge of the allocation of funding.

For the past five years this financing model has been supported by the National Health Programme (PRONASA), which has as one of its development strategies – the strengthening of research and health teaching. In addition, the Sectoral Fund was included as an action item for PRONASA.

An outstanding feature of the operation of this fund is that it has called for specific requests at a time when Mexico has been threatened by health scares and epidemics. More specifically, in 2005 the call for proposals on tuberculosis work was unveiled, in 2009 the focus was on influenza and on obesity in 2010.

## 2. Financing resources for science and technology in Argentina

**PAULA PODHAJECR**, Expert Consultant to the Health Sector, Ministry of Science, Technology, and Productive Innovation, Argentina

The mechanisms to plan priorities used by the Ministry of Science, Technology and Productive Innovation in Argentina have been characterised by the application

of participatory methodology - through which various agencies and health sector representatives are invited. This is partly based on the identification of strategic socio-production nuclei. These nuclei coordinate the supply and demand of technologies. From these priority lines, actions are defined and in each case the required resources, regulation and the instruments to ensure compliance with each nuclei's defined actions are determined.

The Technology Innovation Fund (FITS) makes resources available to support capacity building in order to generate and incorporate technological innovation in strategic areas such as agribusiness, energy, health, social development and environment.

In this approach to the funding mechanisms, there are some similarities with the approaches that were taken in Mexico. For example, the Ministry supports proposals that are aimed at solving high-priority problems and at technology. For a project to have the support of the government and private initiatives, it must guarantee the successful delivery of results to the market.

This fund was created to promote technology development initiatives that have market viability. The fund uses the structure of a public-private consortium. The fund operates through Sectoral Technology Councils, meaning that each sector has resources to support proposals that will generate results applicable to each of the participating sectors. The initial funds created were the ones for high-tech and biotechnology, allocating approximately 5 million USD for the production of monoclonal antibodies for treating cancer. In this fund, the work was oriented towards defining the priorities, and it is at that time that the ministry decided to support the development of a diagnostic kit for congenital Chagas disease and diagnostic strategies for bacterial diarrhea.

A rather innovative initiative is referred to as the "platform", and it involves the creation of support units and referral services in the areas of experimental research and services. Experts have also started work on state-funded drug production -- which already has a law -- and will begin the installation of laboratories for state-funded production.

In response to the various questions that arise regarding funding, the model of the sectoral funds approach appears to have had greater impact.

Finally, if we ask ourselves, where is the key to success? Possible answers might show how priorities are formulated, how to legitimise them and how to implement them.

### 3. The National Fund for Health Research and Development, FONIS in Chile

**EUGENIO RAMÍREZ VILLALOBOS**, National Institute for Public Health, Chile

In Chile, the National Fund for Health Research and Development operates as a response to a need expressed in the 1990's and also to the consideration that the country was beginning to integrate basic and applied research groups. In 2000, the National Council for Science and Technology (CONICYT) together with the Ministry of Health (MINSAL) established an agreement to move forward in generating contributions and research grants for research. The aim here was to focus on solving specific problems in the health sector that go - beyond information or knowledge production.

In 2001, a working group was formed by MINSAL and CONICYT to develop a proposal for establishing the National Fund for Health Research and Development. Between 2003 and 2004, a mutual cooperation agreement between these two institutions was established with a view to strengthening research and technological development in health. In 2004, this fund was legally instituted and, in the same year, the first call for research projects was issued.

The objectives of FONIS are:

- a) to generate scientific and technological knowledge to support decision making in the health sector,
- b) to promote applied research on priority issues set by MINSAL and
- c) to disseminate research results for publicity in various sectors in the country.

FONIS's operations have clearly defined priorities and proposals go through the general selection phase of pre-projects. Projects at this phase are subject to scrutiny by a review committee formed by MINSAL members, to determine whether they meet the priorities of the health sector. Projects selected during the first stage receive a minimum evaluation, but it is the committee of clinical, health, and psychosocial experts that are in charge of reviewing and pre-approving these pre-projects.

FONIS has had a significant impact on the management of funding resources in science and technology and this has led to:

- a) increased participation of academia in the calls for proposals,
- b) improved redistribution of resource allocations to rural regions where this was previously concentrated in the metropolitan area of the country and
- c) the wider distribution of research resources for public health needs.

Over the past six years 127 projects have been approved, and they have resulted in specific applications and benefits, and these have also been widely publicised by media outlets in the country.



*Fish Bowl approach to the sessions, chairing is Dr Eliana Martínez, Colombia*

### 4. Financing mechanisms in the region: Lessons learned

**LUIS ALBERTO SANTA MARÍA**, Deputy, National Health Institute, Peru

In Peru in the 1980's, priorities were determined by the elite who gave greater emphasis to infrastructure and to the formation of groups and research systems. The 1990's saw the need to increase science and technology management because after many years the expected results were not obtained. The processes towards democratisation in the country contributed toward the growth of a knowledge society that knew how to invest in science and technology. This has emphasized the creation of research networks and the establishment of priorities defined not only by the elite, but also by the users of knowledge and research.

One of the features of the free market model - is that users of goods and services are segmented and this segmentation is precisely where we find the dilemma regarding what to fund. The state has the challenge of financing the entire population. Therefore, the criteria of what to prioritise in terms of funding are at times different.



As a result, industry and the state must then take on this difference in terms of their efforts to plan and prioritise.

A critical issue that countries in the region currently have to deal with is the control of malaria. When malaria emerges as a resistant strain in many parts of the Americas, research is undertaken to find a solution. However, drawing on the incidence of the early cases we can see that it took ten years for research to start generating clear solutions. The problem is the length of time it takes knowledge evolution to solve a given problem. What is relevant is to create mechanisms to expedite the contributions of knowledge and its application.

What should we do to develop research that allows us to detect germs of any kind? Do we have funding resources to support these knowledge systems? These questions have not been thought out thoroughly and we are not doing anything to identify funding sources to help us prevent critical situations.

While there have been ideas on how to generate and direct funding, it is important to understand that it is not possible to fund all the initiatives of researchers in a free system which therefore must be sorted and prioritised.

## Four reasons for funding research for health:

- 1** When funding a consolidated knowledge system, you get more productivity and results that have a longer life-span;
- 2** When the supported groups are multidisciplinary, the results are better;
- 3** When doctoral or master's students are incorporated into the research groups, the results are better;
- 4** When integrated programs are supported rather than isolated projects, results are better

*Luis Alberto Santa María, Perú*

## Comments from the participants:

- *“It is necessary to evaluate the effectiveness of funding for research and innovation for health and whether they have helped raise research performance.”*  
(Giorgo Solimano, Chile)
- *“The field of global health, particularly on the issue of the society and health, should not be a field exclusive to the health sector, but should include other sectors such as education, environment, and social welfare, among others.”* (Nelly Salgado, Mexico)
- *“The vision for the funding should extend beyond national boundaries. Many conditions that require research answers do not recognise borders, so it is necessary that in forums such as this one, we consider the possibility of creating regional resources.”*  
(José Eliseo Orellana, El Salvador)
- *“A recurring question is how countries in the region should manage funds from international agencies in order to adequately address local needs and priorities.”*  
(Janis Lazdins-Helds, OPS/OMS)
- *“We know little about whether sectorial funds implemented in the region's countries support proposals that offer effective solutions to prioritised health problems. In Mexico, we evaluated results from projects financed by the Sectorial Fund between 2002 and 2005 which showed an increase in the number of articles published in scientific journals, of programs for training of human resources and of interesting contributions on new methods of diagnosis, treatment and different types of technological developments.”* (Rodolfo Cano, Mexico)

## Fourth Session

# Does international cooperation that supports research for health address national research priorities?

**CHAIR, LUIS GABRIEL CUERVO**, Senior Advisor for Promotion and Research Development, PAHO/WHO

## Introduction

The first steps toward international cooperation in research and health innovation occurred primarily from high-income countries and their agendas were crucial in defining the areas of research and development for recipient countries. Although this approach has shifted towards the perception of priority health problems in local contexts, current cooperation agencies have a regional and global health perspective, which requires developing countries to broaden their perspective of proposed research and development from local to international and global.

What characterises today's international cooperation is the presence of international organisations that integrate financing for initiatives with a global impact in which the benefits are equitable and directed toward solving problems that are of greater burden on the local and global economy.

Another important feature of international cooperation is that it has given more emphasis to the research field than to the development of technologies or products that target the international market. This is an aspect that we have started to incorporate into the cooperation agendas.

This panel included representatives from cooperation agencies sub-regional coordination organisations, and specific support programs.

Attendants asked, primarily, how -- faced with this long history of cooperating with international agendas, could the countries in the region kick-start South-to-South cooperation. This is considered to be a fundamental challenge for the coming years, especially in attending to local and regional priorities.

## 1. Spanish policy on cooperation in research and innovation for health

**BLANCA PALACIOS**, Office of Cooperation in Technology, Panama, and of the Spanish Agency for International Cooperation and Development

One of the key priorities of the European Union (EU) is to support research and innovation. Its role in global health has been through the support to research throughout the entire cycle of innovation and has provided guidance in achieving the greatest impact on public health in its countries. The EU seeks to provide effective input on health policies, to improve the delivery of health services and to include ways for partner countries to increase their national research capacities.

According to the guidelines of the Paris Declaration, the important criteria for exercising this role are as follows:

- a) foreseeable support for a minimum support period of three years. This is essential for helping countries – with less public financing capability – to design and apply national health strategies;
- b) appropriation and alignment of 30% of EU resources for health through EU development programs of partner countries, using 80% of procurement systems and by managing public finances in these countries.

The Council of Ministers of the EU calls for fair and effective funding of research through the following:

- a) To work within the context of a global research and development framework that meets the priority health needs of developing countries and prioritises pertinent actions for research
- b) To increase research capacity in public health and in health systems in partner countries

- c) To ensure that public investments in research for health can provide access to knowledge and tools generated as a global public good.

The Spanish Agency for International Cooperation and Development (AECID), has developed an Action Plan for the Health Sector (SAP-S) that defines Spanish cooperation from 2010 to 2013 and is made up of several strategic initiatives including the following:

1. Comprehensive strengthening of quality and equal health systems with a course for action indicating support to knowledge management and research.
2. Strengthening programmes for HIV, TB, malaria and neglected diseases.
3. Institutional Strengthening of AECID in order to give it clear positioning in the international community.

Spanish cooperation instruments to align with national policies are the Country-Association frameworks that the Spanish Government is currently signing with partner countries, through which working strategies are established from the work being done under the AECID cooperation agreements in these countries.

## 2. COMISCA's strategic objectives

**ROLANDO HERNÁNDEZ**, Executive Director of the Ministers' of Health Council of Central American and Dominican Republic (COMISCA)

This Council of Ministries is an element of regional integration in Central America and its' legal integration derives from the Tegucigalpa Protocol. Within the context of the Council there are resolutions that bind the countries together. The Council is structured in such a way that makes it a leading institution for research for health in the region. The Central American and Dominican Republic Health Plan, created for a period between 2010 and 2015, is based on the health agenda for the period 2009 - 2018.

With regard to research, one of the objectives is to promote scientific research and the development of science and health technology, as well as the application of evidence in public policies for health.

Member states have made various decisions regarding research. Among these are those concerning the promotion of research and technological innovation in the pharmaceutical, scientific, and industrial sectors. On the other hand, these processes ratify the Policy for Research

for Health of PAHO / WHO and the need to adopt and implement policies on research for health that are in line with national health plans.

There are three challenges for research in Central America. The first is to generate better evidence about inequalities and social exclusion in order to promote policies aimed at solving these problems. The second is to undertake essential research to clarify the nature and extent of health problems in light of the context of environmental, social and economic challenges. The third is to increase the now low investments in multidisciplinary and inter-sectoral research as well as to increase the weak public sector capacity to support and use research for health.

Interesting achievements include the formation of the Regional Committee on Public Health Research, the development of a diagnosis and identification of critical issues, the creation of a regional fund for research, and the development of strategic partnerships with research and educational institutions in order to strengthen public research for health capacities.

There are many common problems in the region, amongst them are, the lack of a policy or a management system to identify and introduce the use of new technologies, the lack of legal and security procedures for the use of health technologies, and the lack of implementation procedures for evaluating health technologies.

Some of the future action points include the promotion of international collaborative networks for the development of drugs, vaccines and disease diagnostics that are aimed at treating prevalent diseases in the region, as well as generating initiatives for the acquisition of appropriate telemedicine technology.

## 3. Prioritisation in the research system

**DR. MIGUEL ÁNGEL GONZÁLEZ BLOCK**, Executive Director of the Centre for Health Systems Research (CISS) with the National Institute of Public Health (INSP) in Mexico

The linear relationship between theoretical development and its application in solving problems is an incorrect affirmation (Donald Stokes). Traditionally, greater weight has been given to theoretical development, which has been endorsed by international and national organisations that finance scientific development. Private companies or local agencies were often responsible for the development of applications or technologies, using their own resources. This creates an imbalance in the relationship between basic and applied science, and in so

as much as this relationship is linear, as Stokes points out, both are independent.

At the National Institute of Public Health (INSP) efforts have been made to encourage the development of strategic research that is linked to specialised agencies or firms, while maintaining a close relationship with users. These communication mechanisms make it feasible to design a political agenda that defines priorities, available resources, strategies and programmes. It's not an easy task; it is time consuming and requires investing time in stewardship and management of research.

Research benefits can be specific depending on the type of users that the research has been targeted to. According to the Canadian Health Services Research Foundation (CHSRF), there are four factors / agents that are involved in obtaining research results. These include: academic institutions, health professionals, service managers and funders, and government. They all receive various benefits from research and they need to be understood in order to reconcile and negotiate them against each other so as to avoid imbalances.

Communication coordination between these stakeholders should address three phases:

- a) prioritisation – meaning the establishment of fair and rational allocation of public resources to research areas that are of the highest relevance,
- b) implementation and integration of science or knowledge into the system. For example, executive summaries that help to inform various groups within the system on the performance and research benefits,
- c) the acquisition of knowledge and the development of products and policies by these groups,
- d) the application or use of knowledge by players in the system.

Prioritisation criteria based on effectiveness must be complemented by those of equity and must be clearly balanced with public demands. We should not favor one over the other as public demands are not always in favor of equity and we should keep that balance, since we might create poorly managed situations due to the lack of governance.

The cycle of innovation should consider on the one hand the individual analysis (product development or intervention and effectiveness and efficiency) and on the other, that of context. The latter should take the adoption of scientific knowledge by the population and by the system into consideration, taking into account an evaluation process in the early-stages of implementation.

The region has undertaken a prioritisation exercise that includes the creation of the Mesoamerican Public Health System in conjunction with the Fundación Carlos Slim AC, the Bill & Melinda Gates Foundation and the Spanish Government. This experience provides an opportunity to focus on regional problems that have been locally prioritised, especially those affecting poverty. The initiative identified four priorities focused on global health. These include: maternal mortality, nutrition problems, vaccination and vector-borne diseases.

Process parameters and results were defined in order to evaluate priorities. The first considers the efficiency of the process, which defines priorities, namely the existence of facilities to assigning the resources, the ability to make decisions and the perception that results are obtained based on the amount of time invested. For results, it is considered that the effect priorities have as well as the Organisation's budget and a change in priorities, as well as the support they receive from the strategic plan, improving conditions for growth and balancing the budget.

### Comments from the participants:

- *"If the current approach to global health is focused on the global health care problems of developing countries, a question that should be asked is, why are few resources being channeled to projects from these countries?" (Antonieta Rojas de Arias, Paraguay)*
- *"We have to review the possibilities of increasing cooperation among countries in the region regarding global health problems, but from the perspective of Latin America. We must also see the possibility in identifying how to solve problems within the context of our countries. We should not expect support coming from high-income countries to overcome inequity in our own countries." (Leonel Valdivia, Chile)*
- *"In order to justify their investment, an international agency that provides funding for research strives to open up the possibility of transferring results into the international arena -- that is, not just solutions to national problems only." (Miguel Ángel González Block, México)*
- *"COMISCA is open to South-South collaboration as mandated by presidents seeking collaboration and open to cooperation." (Rolando Hernández, COMISCA)*
- *"PAHO/WHO currently has a new opportunity to promote cooperation between middle-and low-income countries. The example of Brazil shows models with a great openness to cooperation between countries in the region with one another and with Africa, as well as other countries in the region. One of the factors influencing this great capability for cooperation is that Brazil has a law allowing the Ministry of Health to finance outside, collaborative projects." (Dr. Miguel Ángel González Block, México)*



Friday, November 25<sup>th</sup>

Fifth Session

## Resources for regional and international collaboration

**CHAIR, NÉSTOR SOSA**, Executive Director of the Gorgas Commemorative Institute Panama

### 1. Health Research Web in the Americas: Progress and Challenges

**DR. LUIS GABRIEL CUERVO AMORE**, Senior Advisor of Promotion and Research Development, PAHO/WHO

Health Research Web (HRWeb) is a virtual information tool that was developed by COHRED, the site's developer and manager. PAHO/WHO is now a collaborator on this project. The site's intent is to consolidate in one platform, information on national systems for research for health with an emphasis on low and middle-income countries (<http://www.healthresearchweb.org/>).

It has been developed as a global online forum that is quick and accessible with simple tools that are aimed at different users in the region (<http://www.healthresearchweb.org/Americas>) - in order to help you locate and readily share information that is relevant to research for health. HRWeb is a source of ever-expanding information on the structure, organisation, funding and prioritisation of research for health in and for countries in the region.

#### 1.1 Why Health Research Web?

Currently, there is no other source of information describing research for health systems in low and middle-income countries. HRWeb's value-add is that the information is organised from the perspective of those involved in research activities (government, academic and research institutions, civil society organisations, etc). Its guiding principle is based on national research for health systems.

The thematic areas covered by the site are those that form part of the development and management of research for health, namely, governance and health research policy, academia and research institutions, review and ethics committees, funding, projects' registration, information resources and civil society.

The site works as a wiki, with data provided by different users; each user person that registers as a formal representative of an institution can contribute information and data to each of the site's components.

### Health Research Web: A Quick Look

The site's information helps:

- Governments to improve governance, leadership, management, financing and organisation;
- Research and academic institutions to support the development of human resources and educational and research program options;
- Donor agencies and sponsors to plan and evaluate research proposals as well as identify partners;
- The industry, providing information on regulations and legislation for research for health;
- Civil society organisations and NGOs, to focus research for health in areas of greatest need and to advocate for research on national priorities and health equity;
- Researchers because it facilitates the location of partners, projects and study areas;
- International organisations and ethics committees to obtain information on regional and global research, standards and governing bodies;
- Those who investigate and analyse the development of research for health systems, providing them with key information.

Official information from the ministries is submitted after confirming that the user has been appointed by national authorities and has an authorising letter of accreditation. The site is available in the four official languages of the United Nations for the Americas (English, Spanish, French and Portuguese).

In-country reviewers are responsible for quality control of information and are expected to integrate review groups made up of representatives from academia, government, business and civil society organisations.



*Dr Luis Gabriel Cuervo, PAHO, presenting*

## Comments from participants:

- The registration of ethics committees in the region's countries is a valuable feature of the site.
- It would be useful to have information about committees that can review projects from countries or institutions that do not have this resource.
- HRWeb will in the near future have information from non-governmental organisations (NGOs) conducting research for health at the national, regional and global levels.
- Creating a registry of ethics committees is essential for countries that are in the process of institutionalising research.
- Additional services could be having technological tools that enable the direct recording of data from research projects that need support from available ethics committees and integrating tracking information and initiatives, such as the International Registry Platform of Clinical Trials (ICTRP), the Cochrane Collaboration, and a repository of systematic reviews (PROSPERO).
- It should place particular emphasis on local research projects with international or global impact.
- It is necessary to promote access to the platform among decision makers who need data about who's who in research and about which topics are being worked on in the region.
- There is a need to validate that registered projects have gone through a review and evaluation process and that they have the necessary accredited institutional support.
- This tool is unique and therefore should be supported by a promotional strategy and expansion in all regions and countries.

## 2. Collaboration Networks

One of the objectives of this conference was to facilitate the creation of a space through which established research networks could get together in satellite sessions. It is in this regard that two networks managed to create opportunities for dialogue and engagement at the Conference.

## 2.1. Latin American Association on Global Health (ALASAG)

**NELLY SALGADO**, National Institute of Public Health, Mexico

ALASAG came forth in April 2010 in Mexico City during the meeting of the Global Health Education Council (GHEC) and the First Latin American and Caribbean Congress on Global Health, which was organised by the INSP Global Health Programme of Mexico. Around 500 participants from 17 countries attended, most of them from the mainland, but there were also some from the Caribbean.

ALASAG was conceived as a regional collaborative network bringing together around issues related to global health, including:

- A way to view and tackle health as a global, public good, as a matter of social justice and as a universal right to the exercise of equity, ethics and respect for human rights;
- It is also seen as an emergent process in Latin America providing useful tools for addressing inequities, and drawing similarities, synergies and common interests;
- ALASAG is a response to common challenges and is rooted in our national realities and in deep respect to the idiosyncrasy and identity of our peoples. The creation of this partnership is based on the need to express the voice of a united Latin America and to position regional research agendas in global for a with transparency and fair participation.

ALASAG takes advantage of the new dynamic of cooperation that emphasises a regional collaborative environment, especially among southern nations. It also fosters collaborations that are based on horizontal transference between low and middle income countries, and triangular transference between these countries and high-income countries, thereby cutting across the South-North-South dynamics on issues of research for health, education and technical cooperation.

ALASAG's mission is to promote a global health approach in human resources training, research and technical cooperation in Latin America through inter-institutional collaborations. Its vision is to become a leading alliance in the field of global health in Latin America and to be the official, worldwide voice of the region. It is currently in the process of internal organisation, developing a guide for its actions and internal rules. The technical secretariat functions are carried out by the Global Health Program of the National Institute of Public Health.

The official forum of ALSAG is the Latin American and Caribbean Congress on Global Health. The first official meeting of ALASAG took place in April 2010 at the INSP in Mexico. The 2nd Latin American and Caribbean Congress on Global Health will be held in Santiago, Chile in conjunction

with the Public Health Congress of Chile, January 25, 2013. American and Caribbean Congress on Global Health will be held in Santiago, Chile in conjunction with the Congreso de Salud Pública de Chile, January 25, 2013.

## 2.2. Ibero-American Ministerial Network of Health Learning and Research (RIMAIS)

**LUIS TACSAN CHEN**, Executive Coordinator of RIMAIS, Director of Research and Technological Development for Health, Ministry of Health, Costa Rica

*RIMAIS is integrated by the ministries of health of Latin American countries committed to the development of learning and research in public health, as well as governing bodies from the health sector.*

### Background

The creation of this network was called for by the Granada Declaration (September 2005) and then proposed by the Ibero-American Conference of Ministers of Health (RIMAIS). The network is coordinated by Costa Rica. In 2007, during the IX Ibero-American Conference of Ministers of Health it was ratified to operate through the Iquique-Chile Consensus.

The purpose of this network is:

- a) to strengthen ministries of health capabilities to develop stewardship and learning in public health and in research for health,
- b) to create the potential for (i) learning in public health and in research for health particularly towards achieving the Millennium Development Goals (MDGs) and also for (ii) strengthening Essential Public Health Functions (FESP) and
- c) to promote regional cooperation initiatives between Latin American countries.

RIMAIS is constituted by the ministries of health of Latin American countries committed to the development of learning and research in public health, in their role governing bodies of the health sector. The countries in this network are Argentina, Brazil, Bolivia, Chile, Costa Rica, Cuba, Ecuador, El Salvador, Spain, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Portugal, Dominican Republic and Uruguay.

Major achievements since its inception are:

- Approval of the Project "Strengthening Ibero-American Ministries of Health for Learning and Research in Health", by the Spanish Agency for International Development (AECID),
- Approval of the Project for Strengthening of Ibero-American Ministry Learning and Research in Health Programmes by the Ibero-American Programme of Science and Technology for Development (CTYED),
- Approval of the project Defining a Roadmap for Cooperative Health Research between the EU and Latin America-Caribbean countries: a Policy Oriented Approach (EU-LAC HEALTH) by the European Commission.

The greatest focus areas for this network have been training professionals in the field of research; therefore, its main activities focus on a) management training for national research for health, b) integrated analysis of national research for health systems in RIMAIS member countries, c) regulation compilation for research for health ethics for network member countries, and d) development of a system of research for health indicators.

## Reports from the task groups

**CHAIR NESTOR SOSA**, Executive Director of the Gorgas Commemorative Institute, Panama

### A. Linking innovation to policies for research for health

**PRESENTED BY SERGIO RAUL MUNOZ**, Professor at the Universidad de la Frontera in Chile and President of LatinCLEN

#### 1. Linking academic institutions that deal with health issues to the industry: risk, opportunity or lack of interest?

- While some participants indicated successful cases of cooperation between academia and industry or between academia and regional governments, most agreed that communication between these sectors is not easy.
- Contributing to strengthening ties between academia, government, business and society, demands a cultural change that is driven by institutional leaders whereby research and innovation as key resources are incorporated into policies aimed at society's development and welfare.
- This communication should also be extended towards funding agencies that do not always share the same views as government institutions or private business.
- Policy management is a fragmented process. The entities responsible for supporting research activities such as those governing education, science and technology, health, and industrial development – operate in an environment of uncoordinated ties and actions.
- In most countries in the region, researchers do not know the technology transfer process, tools, legal issues and specific procedures to be performed. This affects the communication process and the ability of various parties to negotiate with each other during this process.
- Governments should ensure a more dynamic process in generating local innovation. This requires strengthening the regulatory framework that, among other things, would help to present aspects of support and protection for industry in order for them to grow their capabilities and to incorporate their research results.
- Some countries (Chile, Brazil, Argentina and Mexico, for example) have promoted programs based on the availability of venture capital for the experimental process of adaptation and technology transfer, which encourages entrepreneurship and the undertaking of partnership with academia and the government. The region's challenge is to analyse opportunities to reproduce and adapt these experiences in those countries that have some potential to diversify funding sources and resources.
- The limited availability of funds for financing from the public sector has contributed to a decline in private investments in research and development.
- There is a range of possibilities in the health sector for carrying out innovations that do not involve the business sector -- that are "not linked to patents" -- such as innovations aimed at improving the organisation of resources and process flow, the efficient use of clinical practice guidelines and health technology assessment, and the implementation of innovative programs of health promotion, and preventive interventions.
- Health systems need to more deeply incorporate the idea of innovation.
- Academia does not incorporate society's return on investment from public funds. In addition, academia has yet to incorporate innovation's mission into social and economic development.
- The academic community should continuously inform decision makers regarding progress and contributions. It would be advisable to design and promote information formats that are specially designed to reach out to them.



## 2. Training researchers and innovators in higher education institutions: the inclusion of young people in research and innovation?

Participants made the following comments:

- Formalising research as a career is a fundamental task of / for national governments.
- Recognise the cultural value of a researcher's work by making this research available to various societal groups - with a clear emphasis on the contributions and benefits of their work.
- Raise the quality of research training programme options by incorporating the value of their results to society.
- Academic institutions in partnership with governments should support initiatives that raise the visibility of the benefits of research.
- Standardisation of educational systems in the different countries of the region in order to facilitate exchange and cooperation.
- Strengthening of the repatriation policies for researchers that choose to pursue their studies or training abroad.
- Encourage research projects on research itself and the role of the researcher.
- Academic institutions should be transparent in their work and results.

## 3. Incentive programmes for research and innovation: how can we improve?

Through the following actions:

- Promoting tax exemptions for innovation producers and financiers;
- Establishing technology parks;
- Promoting partnerships between academia, government and manufacturers;
- Using "royalties" (national funds) to finance research and innovation;
- Facilitating research internships at productive companies;
- Promoting the creation of innovation offices within universities;
- Giving scholarship incentives for innovation exchange;
- Differentiating regulatory stimuli for research and innovation;
- Promoting the implementation of innovation agencies in universities.



*Working groups at one of the break-outs*

## 4. Barriers to innovation (intellectual property management): how can we get rid of them in order to advance?

Innovation is a broad concept, originally relevant to product developers entering the market. Innovation is commonly defined as the acquisition or modification of an original product introduced to the market which then goes on to generate economic or social trade. Therefore, in most cases when innovation is discussed, the emphasis is on the originality around the products that are made available to society.

**The concept of innovation** as is used by the participants at this conference is not restricted to the acquisition or modification of products or new supplies. It also incorporates technological adaptation, changes in production processes or service flows, and new patterns of behavior arising from research.

An innovation may not necessarily transcend local boundaries, but it could also have broader application. The value of innovation at any level - should be based on a timely solution to a need, taking the cost benefit for end users into consideration. However, the fundamental point of innovation is patent filing that supports the contribution's originality, the intellectual property of the originator and the potential for replication in different settings and contexts.

## Major Contributions

- Countries should continue institutionalising research and establishing research as an official career.
- The creation of stimulus programmes and attractive options that can be used to attract young researchers that have migrated to the US and Europe.
- Results from research for health, particularly those that are addressing national priorities should reach as far as possible – including the regional and global levels.
- Efficient management of innovation and the introduction of goods and services demand strengthening regulatory framework.
- The health sector must be the leader in setting innovation priorities, with participation from other governmental players.
- Integrating regional research networks could help considerably improve the quality of research projects with a regional vision.
- Ensure the financial subsidising of the State and encourage industry participation in funding.
- Encourage private universities to strengthen training and the practice of research and innovation.
- Use of Information Technologies and Communication Technologies (ICTs) in order to promote research and innovation among youth.
- Development of industry and government policies that involve youth in research and innovation.
- Strengthen scholarship funding at national institutions for research for health.
- Create incentives for researchers that contribute to innovative outcomes of products.

## Major barriers to innovation:

- The way that priorities are established for innovation is superficial;
- There is a general ignorance about how technology transfer works;
- Insufficient human resources training for the specific topics.

## B. Funding of research priorities

**PRESENTED BY JOSE ELISEO ORELLANA**, Regional Advisor, Republic of El Salvador

### 1. How to create efficient financing mechanisms?

In order to establish efficient mechanisms for financing research and innovation for health, participants from this working group considered the need to distinguish two levels: a) allocation efficiency and b) implementation efficiency. Some of the main considerations in this regard included:

- Funding resources should be allocated according to health priorities defined by agencies involved in health policy in coordination with academia.
- The quality of research proposals is key to obtaining resources and must be accompanied by the institution and the research team's executive capabilities.
- The best use of available funds for research that is geared towards solving prioritised problems should be determined. And this would work better if funding agencies had greater and improved collaboration.
- The creation of national support systems for research should be focused on. This can be a valuable resource for encouraging an increase in scientific production and in the training of researchers that are dedicated to conducting research.

It is imperative that in budget implementation processes for research programmes, mechanisms, management and implementation flows must become more flexible and efficient and should be used to reduce the excessive bureaucracy that is still found in many countries in the region.



*Working groups at one of the break-out sessions*

## 2. Do we require more funding or more efficient research coordination?

It is important to improve management processes, the allocation of funds, and financing execution. Researchers -- in particular project leaders -- should be involved in the learning process for the efficient management of resources allocated to their projects (it should increase the research teams' management capacity). This could be accompanied by institutional strengthening in resource management, establishing clear monitoring and evaluation including the monitoring of technical support for research, ethics and biosafety committees.

## 3. Is it possible to achieve financing mechanisms at a regional level?

The identification of areas of regional interest could provide a complementary effort to research at a local perspective. Along these lines, it is necessary to begin the construction of a regional agenda and gradually reduce the false opposition between regional and national interests. Faced with the demands of global health care it is increasingly becoming necessary to move towards the set-up of regional funds. Sensitisation about this is necessary at the highest levels of policy making on health, science and technology - given that the creation of these funds can build shared interests among local research groups. Existing agencies and initiatives currently functioning on the basis of regional partnerships (such as COMISCA, COHRED, Meso-American Public Health System) should maintain communication with high level decision makers in their agendas in order to work towards the creation of regional funds.

## 4. As a researcher, how can I have easy access to research funding?

- Although there are various sources of information about financing, they are not readily accessible to researchers;
- The availability of funding sources in most of the region's countries is scarce or, in any case, lower than the demand;
- Access to calls for research for health funding isn't straightforward;
- Academic institutions are called upon to improve the dissemination of calls and the defined criteria for evaluation of funding opportunities;
- One way to achieve greater equity in the distribution of these resources would be differentiated open calls for young researchers, trainees and senior researchers.

### The main contributions include:

- Financial funding implemented by the governments of various countries in the region has shown the implementation of sound coordination between strategic government agencies.
- These mechanisms have progressively increased funding for research for health based on national priorities.
- Individual management of research resources by the researchers is hampered by the fragmentation of funding sources.
- Calls for international financial resources require researchers in the region to have a clear understanding of the local strategic problems and to project these to the global health problems.
- The marked polarisation in the availability of financial resources among Latin America and the Caribbean countries requires stronger regional collaboration that leads up to the creation of regional financial funds.

## C. Research priorities: who decides?

**PRESENTED BY HOMER MARTINEZ**, Senior Researcher, RAND Corporation

### 1. The usefulness of research agendas

Research agendas are useful when:

- They take a flexible approach and are responsive when there are emergencies, critical moments and local realities;
- They have a specific shelf life. That is, how long will it take to achieve the objectives of the research? An intact agenda that stays on the desktop for too long can easily become obsolete if it is not bound to a specific and relevant timeline;
- They are built locally and are open to renewal. The agenda must have financial resources because without them, the agenda is only an expression of good intentions that doesn't lead to any clear goals and results;
- They are properly prioritised and are driven by clearly defined objectives that are developed through methodological rigor including not just objectivity, but also transparency.

In developing research agendas, it is necessary to guarantee the definition and selection of indicators that will help implement the monitoring and compliance assessment processes.

### 2. Are the priorities of international agencies applicable to the local context or should we recommend ways to look at them differently?

- They are partially applicable because many countries do not know these international agendas;
- It is preferred to develop local agenda that are linked to international agendas. This also calls for the fostering of capacity building for the purposes of negotiation with international agencies;
- We need to narrow the 10/90 gap;
- Regional organisations could stimulate the development of subregional, regional and global agendas;
- Strengthen science and technology in countries through multicentre projects that demonstrate the ability of participation and concentration;
- Establish negotiations with ministries of science and technology in order to create a fund for health care priorities;
- Global agendas are of strategic importance, as they become a tool for foreign policy.

### 3. Who should set priorities at the national level and why?

- The national health authority, as it represents the government, as well as human and financial resources and convening power.
- All stakeholders of the health system must be involved: academia, business, society, users, managers, and representatives from various social and economic sectors.
- Final integration belongs to the government, because national research for health agendas are state policies.

### 4. As a researcher, should we conduct research on national priorities or on scientific priorities?

- We must encourage scientific creativity and strengthen the responsiveness required to develop national priorities;
- Researchers should point out in their reports what the presented research is about, what it applies to and the specific research questions and priorities (for instance, using the PICO model, which defines populations, interventions, outcomes and benchmarks for study and the preferred methodology).

#### The main contributions include:

- The research agendas should be developed through participatory mechanisms with academia, government, private enterprise and civil society;
- It is important to considering that the health field is not the exclusive jurisdiction of the agencies in charge of health care, but that of social, educational, legal and environmental sectors, among others;
- Agendas should be applicable beyond a government's administrative term;
- Agendas should be flexible in order to respond to critical moments or emergency needs;
- The weight that has now brought attention to problems in global health research agendas should arise from local demands, but with a vision on regional and global levels;
- Research agenda prioritisation will help to expand the capabilities for international collaboration between local research institutions.



## Seventh Session

# General discussion, final conclusions and the closing

**CHAIRS, FRANCISCO BECERRA**, Head, Project and Programmes, COHRED and  
**NESTOR SOSA**, Director General of the Gorgas Commemorative Institute, Panama

The conclusions brought forth from work groups and the conference's final session with all the participants created an opportunity for a final discussion through which conclusions were identified. Below are some of the main comments:

### 1. Creativity in science versus attention to priorities

If the researcher is to meet society's prioritised demands, the question is whether it would affect his essential role as a free, autonomous agent providing creative and original ideas. If you look at the history of science, we see that much of the research stems from the researcher's originality, drive and creativity. The scientific community fears that establishing priorities could stifle researchers' initiative. We would therefore need to create mechanisms to provide flexibility to research lines and research priorities.

### 2. Strengthening research is essential in health

It is clear at this conference that the creation of public funds and that the development and adoption of global and regional policies have contributed to strengthening research for health. What is still pending is the implementation of these policies in order to achieve larger coordination and communication between the institutions and agencies that are responsible for managing funds for science and technology. The ultimate goal is to allocate these resources in a fair and appropriate manner to various sectors that are conducting research.

### 3. Local governments' budgets must accommodate new research for health disciplines

In most countries, the allocation of funding provides for traditional health science disciplines, such as basic and clinical research, and not for public health, health-related social science or technological development. The latter is attributed more to private companies or to ministries of finance or economics. This fragmentation of funding resources makes official calls for proposals difficult.

### 4. A dichotomy in health and research for health agendas

Researchers that have the applicable results for health policies or programmes are not adequately appreciated. It is necessary to define indicators for innovation for health in order to evaluate researchers engaged in research on the basis of their own research agendas against those that are focused on solving priority challenges in society. The evaluation criteria for professionals in science and technology councils should be flexible given that sometimes a professional is penalised for developing a clinical trial or for advising the Ministry of Health to support decision-making because s/he did not publish enough during that period.

Technical management of research resources must consider the political factor in order to establish mechanisms for persuading, negotiating and pressuring (by generating evidence) our countries' authorities.

## **5. Research for herbal medicine, traditional medicine and indigenous health**

This is a field with great potential for the region and can be an area of regional cooperation among researchers; there are breakthroughs that could represent fields of study for production and marketing.

## **6. The science and technology and health sectors: two different ways of thinking?**

The science and technology sector is governed by rules that are different from those of the health sector. Criteria for project selection and researchers' evaluation are different to those of the health sector whose agenda is aimed at solving priority health problems. Having said that the recommendation being made here is that science and technology research be directed to produce and expand the frontiers of knowledge in our countries – including knowledge on health priorities. However, the definition of these health priorities should be led by the Ministry of Health in each country.

In addition, management of research agendas for health and science and technology is more complicated in countries, such as Mexico, where health systems are decentralised. Countries in the region have allocated their own funds in order to bring together the various areas of science.

## **7. Health: a multidisciplinary and inter-sectoral field**

Drawing on the above, it is therefore necessary to highlight the role played by other sectors in research for health and to broaden the concept – of 'research for health' – so that it takes into account other areas and sectors of knowledge. There are other sectors that have a strong impact on health and we therefore need to find ways of building bridges between them and to strengthen the emerging alliances.

The health field is not exclusive to health researchers, in some countries and regions, financial and policy making practitioners often make the key decisions concerning the health sector.

## **8. International cooperation: South-to-South cooperation**

In creating regional funds it is advisable to review new forms of communication, negotiation of and changes to the rules and regulations that define the set-up of funds. This is of particular relevance in those instances where countries have different management styles and different languages. In addition, in the regional cooperation initiatives emphasis should be placed on South-South cooperation.

The transfer of research results and intellectual property protection, regulatory frameworks, contracts, etc. is a key element in starting to strengthen research and innovation in the health field, and is part of the regional and global policies that countries have agreed to and should be implemented. A large number of young researchers do not know these issues and so there is a need to initiate regional training programs on intellectual property.

An interesting mechanism for academic exchanges could be shared learning and peer review between researchers that are starting out in the field and those that are already experienced in the field.



*Closing session with representatives of supporting partner organisations: Brazil, PAHO, MOH Panama, COHRED, Gorgas Institute, COHRED*

## Final message and Acknowledgements

**FRANCISCO BECERRA**, Head, Projects and Programmes, COHRED

This conference is special because it has brought together practitioners that are highly committed to the development, management and administration of research and those that are involved in science and technology. This is in line with COHRED's vision of building partnerships and supporting the efforts of researchers and policy makers to strengthen research and innovation in low and middle-income countries. Attendance by representatives from the European agencies and institutions PAHO/WHO, COMISCA and AEI, among others, offers an opportunity to collectively explore the current status of national research systems and the future challenges.

The conference produced a total of 15 presentations and 12 reports summarised in three presentations and two reports of satellite sessions from two regional networks. They all convey the general conditions existing in low and middle-income countries in the region, and they also highlight the initiatives that are being generated for innovation and for research for health. They emphasise the achievements in the institutionalisation of research for health, the incorporation of different players in prioritising research needs and in creating public financial funding to support these activities. These reports also describe the difficulties that are still faced by local research systems to meet research needs and the training of young researchers to generate stimuli for innovation and for research for health. They also draw attention to the still emerging recognition that society gives the activities of the researcher.

A key issue that has been reiterated at this conference is the importance of local systems in fostering the development of proposals for research and innovation. Proposals that link national demands to regional and global health dynamics. One of our major challenges is to strengthen regional cooperation and, in particular, South-South cooperation – through which we could encourage our countries' leadership to establish relationships with developed countries from a place of strength and fairness. It is therefore necessary

### Contributions of the Second Conference in Panama

In looking ahead at the next Conference it is important to conclude this report by highlighting some of the main contributions of the 2<sup>nd</sup> Latin American Conference on 'Research and Innovation for Health'.

These include:

- The publication of a report for distribution to decision makers of national research for health systems in Latin America and Caribbean countries and to international organisations whose cooperation programmes target this region;
- New ideas to strengthen networking through RIMAIS and between the institutions represented at the Conference;
- The knowledge of new initiatives and policies agreed upon by the countries, which will surely help to expand the vision and actions for cooperation between our countries, such as the recent creation of ALASAG;
- Evidence of significant progress in establishing funds for research funding and the clarification of intent between academia and public policy;
- Evidence of gaps that need to be addressed in the future, such as the official, professionalisation of the tasks of researchers in the health field, the incorporation of young researchers and targeted stimuli for innovative work and research directed towards priorities and health policies, and;
- Development of Health Research Web as a tool for research governance and as a space for collaboration, exchange and policy support - towards programmes and projects of national research for health systems in Latin America and Caribbean.

that we push for the opening-up of spaces for reflection in our countries. That is, spaces and fora through which representatives from academia, private enterprise and government can get to discuss options to help us increase the availability of funding resources that are targeted at priority areas of health. This will in turn enable us to establish cooperative networks that also take into account contributions from international agencies. As such, creating synergy between these systems is now the key challenge.

COHRED is committed to summarising and analysing all the ideas and suggestions made at the plenary sessions and in the working groups. We would like the technical report from the conference to reach each country and in particular the desks of each of our Ministries of Health and related decision makers in science and technology.

We especially would like to acknowledge the valuable work done by each one of you - especially the coordinators of

the working groups and the rapporteurs. You have done an extraordinary job that certainly has produced excellent results.

The organisation of the event was made possible thanks to collaboration between the National Secretariat for Science, Technology and Innovation of Panama (SENACYT), the Ministries for Health from Panama and Brazil, the Gorgas Memorial Institute in Panama, PAHO/WHO, and COHRED. We look forward to the next conference where we might share the progress we've made in meeting the commitments established at the Conference that was held in Rio de Janeiro in 2008 as well as the commitments from this Conference. In our work, we must critically analyse our actions and the steps that we need to take following the insightful lessons that we have learned at this Conference. I hope we will be able to go and contribute significant changes to our countries.

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## ACRONYMS

1. **AECID:** Spanish Agency for International Development and Cooperation, Spain
2. **AIP:** Association of Public Interest, Panama
3. **ALASAG:** Latin American Global Health Association
4. **CHSRF:** Canadian Health Services Research Foundation, Canada
5. **COHRED:** Council of Health Research for Development
6. **COMISCA:** Council of Ministers of Health of Central America and Dominican Republic
7. **CONACyT:** National Council of Science and Technology, Mexico
8. **CONICYT:** National Council of Science and Technology, Chile
9. **CYTED:** Program Latin American Science and Technology, Spain
10. **DECYT:** Department of Science and Technology (Ministry of Health, Brazil)
11. **EMR:** Electronic Medical Record
12. **FITS:** Technological Innovation Fund, Argentina
13. **FOCEM:** Fund the Mercosur Structural Convergence
14. **GHEC:** Global Health Education Consortium
15. **GIS:** Geographic Information System / Geographical Information System
16. **HRWeb:** Health Research Web / Website Health Research
17. **R&D:** Research and Development
18. **ICTRP:** International Clinical Trials Platform Registry, WHO / WHO
19. **INDICASAT:** Institute for Science and High Technology Services in Panama
20. **INSP:** National Institute of Public Health, Mexico
21. **ISSSTE:** Institute of Security and Social Services for State Workers, Mexico
22. **LIMS:** Laboratory Information Management System
23. **MINSAL:** Ministry of Health, Chile
24. **MDGs:** Millennium Development Goals
25. **PAHO / WHO:** Pan American Health Organisation / World Health Organisation
26. **PAS-S:** Action Plan for Health Sector, Spain
27. **PRONASA:** National Health Program, Mexico
28. **PRONII:** National Program Incentives to Researchers, Paraguay
29. **PROSPERO:** International Prospective Register of Systematic Reviews
30. **RIMAIIS:** Ibero-American Ministerial Network on Learning and Health Research
31. **SENACYT:** National Secretariat for Science, Technology and Innovation, Panama
32. **SSI:** Sustainable Sciences Institute, USA
33. **ITS:** Health System, Brazil
34. **ICT:** Information and Communication Technologies
35. **EU:** European Union





**Council on Health Research for Development (COHRED)**

1-5 Route des Morillons  
P.O. Box 2100  
1211 Geneva 2  
Switzerland  
Tel. +41 22 591 89 00  
Fax +41 22 591 89 10  
Email: [cohred@cohred.org](mailto:cohred@cohred.org)

**In Latin America**

Contact: Dr Francisco Becerra-Posada  
P.O. Box 22-151  
Tlalpan  
Mexico DF  
Mexico 14091  
Tel. +52 55 46 22 54 41  
Email: [becerra@cohred.org](mailto:becerra@cohred.org)

**In North Africa and Middle East**

Contact: Dr Hassen Ghannem  
University Hospital Farhat Hached  
4000 Sousse  
Tunisia  
Tel. +216 98 404 357  
Email: [ghannem@cohred.org](mailto:ghannem@cohred.org)

**In South Africa**

Contact: Debbie Marais  
School of Psychology  
University of KwaZulu-Natal  
P/Bag X01, Scottsville  
Pietermaritzburg, 3209  
South Africa  
Tel: +27 33 260 6135  
Email: [marais@cohred.org](mailto:marais@cohred.org)