

Report

# The @LIS2 Program in ECLAC: contributions to the development of electronic health in the region

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## THE PROGRAM PARTNERSHIP FOR THE INFORMATION SOCIETY

At the end of 2001, the European Commission approved the program “Partnership for the Information Society” (@LIS) with the aim of establishing a dialogue and collaboration for defining the political and normative framework. Its priorities, cooperation methods and goals were defined in the “@lis Technical Forum” in Rio de Janeiro on November 21<sup>st</sup> - 22<sup>nd</sup>, 2001.<sup>1</sup>

On the first stage of the program (@LIS1) that went until 2007, one of its goals was to support the execution of a series of projects to show the advantages of the information society in four areas: local governance, education and cultural diversity, public health and inclusion. At the same time, it tried to establish a dialogue on policies and standards, both at the political and technical context, involving governments, the private sector and civil society.

The second stage of the program (@LIS2), 2009 – 2012, has three action lines. One of them – Inclusive Political Dialogue and Experience Exchange – is coordinated and co-financed by the Economic Commission for Latin America and the Caribbean (ECLAC). Its purposes are as follow: a) to include the topic of Information Society in the political agendas of Latin American countries, (b) to promote more resources available on research and development (R+D) on this area and c) to generate a greater participation of civil society in creating public policies. In addition, there is also the goal of strengthening social, political and technical

links in the region with Europe, and to support Latin American countries in the generation of strategies of the Information Society, such as the Regional Action Plan eLAC.

## THE REGIONAL ACTION PLAN eLAC

The first Regional Action Plan on the Information Society in Latin America and the Caribbean (eLAC) was formulated in 2005 in the city of Rio de Janeiro, Brazil. At that time the countries of the region reached a political consensus and a common strategic view, redefining the goals of the global plan agreed upon at the World Summit on the Information Society held in Tunis in 2005. Since the beginning eLAC states that Information and Communication Technologies (ICTs) are instruments for the economic development and social inclusion for Latin America and the Caribbean. In eLAC, the ECLAC acts as Technical Secretariat of the action plan that has had three stages until now: eLAC 2007 (2005-2007), eLAC 2010 (2007-2010)<sup>2</sup> and eLAC 2015 (2010-2015)<sup>3</sup> recently approved.<sup>2,3</sup>

During the first one, eLAC 2007, four goals related to health were formulated. The first two, numbers 4.1 and 4.2, wanted to extend the Internet connection to health centers and hospitals and to promote training programs at these institutions, whereas the other two goals, numbers 17.1 and 17.2, had the purpose of promoting and strengthening the national networks of health services, as well as the regional networks of health information.<sup>2,3</sup>

The second Plan, eLAC 2010, formulated eight goals for health, organized into four fields: surroundings, applications and contents, capabilities and access. The idea was to go forward in integrating ICTs into the healthcare sector, including healthcare staff training; the need to develop national and international networks for telemedicine and distance learning services was strengthened; and the management dimension was included, both in terms of training addressed to decision makers and implementing process planning and management applications.<sup>2,3</sup>

This Plan also incorporated some expected achievements in the area of policies and strategies formulation, as well as in diagnosis studies for decision making. Both aspects were taken into account in the Plan 2007 in a generic way for the different theme areas covered.

Finally, eLAC 2010 specified the goal of creating a “Working Group” on diagnosis, identification of good practices and formulation of recommendations that will contribute to the development of electronic health.

In the third and current Plan, eLAC 2015, health is considered within the “alignment” called Social Security to which ICTs are linked to social protection against poverty, inequality and unemployment, among others. Priority given to health shows the need of “guaranteeing access, safety and continuity of medical care to users of healthcare services through Information and Communication Technologies”. This priority is divided into two targets:

- **Target 13:** *“Promoting integral and integrated Health Management based on Information and Communication Technologies, with emphasis on wideband connectivity on 100% of public hospitals and healthcare centers, and to increase interoperability and telehealth, paying special attention to the single and electronic clinical records and the management systems”.*
- **Target 14:** *“Developing interoperability for regional epidemiologic cooperation, strengthening the use of Information and Communication Technologies for a better coordination of decision making processes among the different healthcare systems”.*

## ELECTRONIC HEALTH AT ECLAC

In order to achieve the goals of @LIS2, the ECLAC prepared its participation through theme components, one of them is electronic health (e-health) by the Division of Social Development. Within eLAC and the dialogue with Europe,

the specific goals of this component are the following: 1) to identify good practices and synergy opportunities; 2) to disseminate meaningful experiences to promote its reproducibility and 3) to disseminate knowledge on the development of the use of ICTs in the healthcare sector, all of them with the aim of contributing to the formulation of public policies and strategies.

In less than two years of work, the e-Health component has promoted dialogue and cooperation between Latin America and Europe on political and social aspects of the Information Society; it has consolidated a regional working group to increase South – South cooperation (this group has 15 specialists from 11 countries of the Region), and it has been recently recognized by the Pan-American Health Organization as an advisory group on its Communication and Knowledge Management area; it has systematized information on regional development in formulating e-Health policies and strategies, comparing its context and evolution to the reality of EU countries and it has worked on identifying, defining and prioritizing social, demographic and epidemiological indicators to follow up the formulation of ICT policies and strategies on health addressed to reduce inequalities.<sup>4-6</sup>

There are currently two processes aiming to describe and analyze the @LIS1 experience – in Brazil and Colombia – in order to show its effects on the development of new e-Health initiatives in formulating public policies and strategies, as well as calling professionals to reflect upon these issues.

Similarly, there are some initiatives which are being carried out to disseminate important lessons and models applicable to the Latin American context from the selection of cases: (1) ICTs incorporation into the Interior Medical Federation (FEMI) in Uruguay and its integration with the National Health System; (2) the experience on administrative and clinical management based on ICT, at the Italian Hospital in Buenos Aires, Argentina and (3) e-Health strategy in Chile.

Within the context of South-South cooperation, collaboration is being made with Brazil’s initiative on the program Public Policy Regional Protocols for Telehealth, financially supported by the Inter-American Development Bank (IDB). At the same time, there is collaboration with the Latin American and Caribbean Economic System (SELA) for the promotion of regional integration mechanisms on health based on ICTs.

With regard to specific contributions for the formulation of policies and strategies, the analysis of standards requirements had been started to guarantee the interoperability in

national projects, aiming to a regional integration, as well as a compared study of normative and regulatory frameworks of healthcare actions through ICTs and of the institutional context for its development. Regarding monitoring and evaluation, identification tasks of initiatives applied in Europe and in Latin America had started in order to deal with the institutional and information requirements for installing evaluation systems that will provide feedback on the processes for implementing e-Health policies and strategies at a national and regional level.

## ICT AS A TOOL TO CLOSE THE HEALTHCARE GAP

Over the last decades ICTs, especially the use of computer and Internet, had become a driver of change and social and economic development. Its use is increasingly wider in the region, although the penetration degree and the speed of its use are highly heterogeneous and unequal.

The contribution ICTs can make towards the social development of countries is fundamental. They have great potential in contributing to reduce inequalities and overcoming poverty, as well as guaranteeing social, economic and cultural rights.

The healthcare sector is key to face the challenge of reducing inequalities and overcoming poverty. Poverty undermines health, increasing health deficits and perpetuating poverty and inequalities. However, global health systems have to face the tension of increasing coverage and quality at the same time of controlling its increasing costs. In this scenario, ICTs are called to contribute to the solution of this dilemma.

Taking into account the current demographic and epidemiological transition, its predictable social and economic impacts, as well as the increasing movement of people around countries and its health effects across borders, Latin American and Caribbean countries have the inevitable duty of improving coverage and quality of healthcare services, especially those offered to the most vulnerable sectors of society. Such challenges are hard, rather impossible, to face with relative hope of success without using Information and Communication Technologies.

Given the increasing volume of data and knowledge related to health, together with the complexity of information, it is essential that health organizations increase its storage, aggregation and analysis capability to integrate administrative, clinical and health information, in order to make decisions.

Most countries in the region have been implementing a wide variety of e-Health projects for several years. However, in general their scope had been reduced and without any connection to national strategies. Nevertheless, it is possible to see some developments that start to constitute themselves in national or sub-national models, whether it is on healthcare services and assistance processes management, or in distance learning or telemedicine applications.

Evidences show that ICTs initiatives on health are better developed if they are included into national policies of the sector and if they manage to integrate different spheres of activity, from the promotion of research, the deployment of telecommunication networks and regulation of standards – each country will stress different fields according to their strategic priorities – it is important to be clear on the mutual conditions and synergies among the different fields: management, care and education. Thus, health authorities' leadership is essential at the initial steps, the same way a State policy is fundamental for the sustainability of strategies.

In order to achieve this, authorities must involve the private sector and civil society actively and thus, make the best use of the knowledge and practice gathered at research centers, universities, private companies and NGOs of each country. It is also important to learn from public experiences carried out in other countries of the region.

With regard to the development of medical informatics at the Italian Hospital in Buenos Aires, the Telehealth Program in Brazil, the Mexican Official Standard in Mexico (NOM) of clinical records dating back to 1999 (this standard recognizes the use of electronic means to store health-related information) and the recently approved Law n° 1419 from Colombia are examples of important experiences that must be taken into account at a regional level (these cases will be analyzed in future publications by the ECLAC).

Another relevant variable that authorities must consider for the success of ICTs implementation in health has to do with the building of trust and once again, the necessary participation of the several actors involved. This can be seen very clearly on the access and safety of health personal data, as well as on legal protection of medical actions carried out through telemedicine.

## CONTRIBUTIONS FROM eLAC HEALTH WORKING GROUP

Developments of this project have largely resulted in contributions made by eLac Health Working Group, sup-

ported by the Division for Social Development at the ECLAC for carrying out their tasks and especially for organizing two workshops.

Besides contributing to a diagnosis of the regional developments, this piece of work has made possible to formulate a proposal of strategic alignments and regional targets to consolidate improvements on specific fields.<sup>4-6</sup>

In the four strategic alignments proposed, summarized below, a guiding criteria to be adopted by sector authorities on each country's particular specificities must be considered. This is due to challenges linked to inequalities and demographic and epidemiological features, the availability of resources and the degree of development of ICTs in incorporation in the State and at the different sectors of the economy.

### Institutionality and infrastructure

Due to the huge effort and investment required, it is necessary to pay attention from the beginning to the aspect of institutionality, through which the whole process is going to be run. Sustainability of the strategy will mainly depend on the composition of the technical teams able to act as competent counterparts in implementing projects and its later mass use. The main institutional actions have to do with guaranteeing availability of infrastructure and services for networking, defining standards that will ensure interoperability and promoting a legal framework that will offer safety to the different actors of the system.

### Information Integrated Management

Greater efficiency and better quality of care are related to the possibility of managing administrative, clinical and health information in an integrated manner. Thus, electronic clinical records must be regarded as a central component. Technical, semantic and operational interoperability is particularly relevant to ensure the exchange of data and knowledge within the healthcare system.

### Implementation of Telemedicine Applications

To extend opportunities and to improve the quality of healthcare for population with access difficulties. Specific applications will depend on the priorities and requirements

of target populations. Optimization and reallocation of human resources is one of the most relevant aspects in this alignment.

### Education, training and information

Applications meant to provide distance education to update knowledge of healthcare teams and to promote selfcare and healthy life habits among citizens. Due to the increase incidence of degenerative-chronic diseases, it will become even more relevant to be closer to the community.

Finally, with its contribution to eLAC regional action plan, the working group proposed the following list of priorities and targets:

*It is fundamental that countries will formulate or strengthen their digital strategies, including those based on internet and mobile technologies, aligned with national health policies. With this effort, the authorities of the sector have a key role as leaders of integration and coordination of the different involved actors, public and private sector, academic community and users. We also believe that it is essential to drive dialogue, cooperation and regional agreement forward, as a central mechanism to promote integration and health convergence in Latin America and the Caribbean.*

*It is a priority to strengthen the institutional capacity to have better evidences as basis for the decisions regarding health services management and to increase the access and safety of medical care with special attention to primary care.*

- **Target 1:** *To implement interoperable systems based on ICTs for the integrated management of clinical, health-related and administrative information, considering the single identification of patients, the national registry of service providers and establishments, the national registry of healthcare professionals and the single electronic clinical records.*
- **Target 2:** *To develop regional interoperability for epidemiological cooperation, strengthening also the use of ICTs for a greater coordination of health systems in the areas close to national borders.*



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