National Telehealth project in El Salvador: features, application process and preliminary results

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This article deals with the initial implementation of telehealth activities in El Salvador. This is a very small country of 5.7 million inhabitants, which is trying to implement a public health system across its whole territory. This process is still incipient. In this context, the training of human resources has a strategic role, with several initiatives incorporating distance learning activities. The telehealth actions began in October 2010 through an interinstitutional group. Up to now, it is being developed at national level with free software platform that will allow easier intercommunication between the teams and with specialists as well as improving communications between the different health establishments. The conclusion is that the process of implementing telehealth actions is still very incipient in El Salvador.

Key-Words: Telemedicine, Information Technology, Primary Health Care, Health Services Availability, Health Human Resources Training.

Proyecto nacional de Telesalud en El Salvador: características, proceso de aplicación y resultados preliminares

Este artículo pretende enfocar el proceso inicial de implementación de acciones de telesalud en El Salvador. Se trata de un país muy pequeño, con 5,7 millones de habitantes, que está intentando implementar un sistema público de salud en todo el territorio nacional. Este proceso es todavía incipiente. Dentro de tal contexto, la formación y capacitación de recursos humanos desempeña un rol estratégico, con varias iniciativas que incorporan actividades de enseñanza a distancia. Las acciones de telesalud fueron iniciadas en octubre de 2010 por un grupo interinstitucional. Hasta el presente se está desarrollado a nivel nacional una plataforma con software libre que permitirá intercomunicaciones más fáciles entre los equipos y con los especialistas así como la mejora de las comunicaciones entre los diferentes establecimientos. Se concluye que el proceso de implementación de acciones de telesalud en El Salvador es aún muy incipiente.

Palabras-clave: Telemedicina, Tecnología de la Información, Atención Primaria de Salud, Accesibilidad a los Servicios de Salud, Capacitación de Recursos Humanos en Salud.

Projeto nacional de Telessaúde em El Salvador: características, processo de aplicação e resultados preliminares Este artigo pretende abordar o processo inicial de implementação de ações de telessaúde em El Salvador. Este é um país de dimensões muito pequenas, com 5,7 milhões de habitantes, que está tentando implementar um sistema público de saúde em todo o país. Este processo ainda é incipiente. Neste contexto, a formação e capacitação de recursos humanos tem um papel estratégico, com diversas iniciativas incorporando atividades de ensino a distância. As ações de telessaúde iniciaram-se em outubro de 2010, através de um grupo interinstitucional. Até o momento se está desarrollado a nivel nacional una plataforma con software libre que permitirá intercomunicaciones más fáciles entre los equipos y con los especialistas así como la mejora de las comunicaciones entre los diferentes establecimientos. Conclui-se que o processo de implementação de ações de telessaúde ainda é muito incipiente em El Salvador.

Palavras-chave: Telemedicina, Tecnologia da Informação, Atenção Primária à Saúde, Acesso aos Serviços de Saúde, Capacitação de Recursos Humanos em Saúde.

The aim of this paper is to show the process taking place in El Salvador to improve Human Resources skills to achieve institutional goals in order to enhance health access of the population as a fundamental human right.

Salvador has a territorial extension of 20.742 km², located in Central America and according to data from 2007 the country has a population of 5.7 million people. Since the left wing government of president took power the Integrated National Health System has become stronger. Under the direction of Dr. María Isabel Rodríguez, Minister of Health, a comprehensive heatlh reform process started in 2009. This reform was officially launched by the president in September 2010.

There are eight priorities that creates the basis of the Integrated Health National System the key political and institutional conditions to ensure its building, strenghtening and sustainability. These priorities are the following: building a Comprehensive and Integrated Network of Health Services at the Ministry of Health, building a National Medical Emergency System; response to drugs and vaccine needs; gradual articulation with Social Security and other public service providers and strengthening inter-agency relationships; support to the National Health Forum; setting up the National Health Institute; development of a Single Planning and Information System in Health and; human resources in health as the cornerstone of the Integrated Health System.¹

When reading the eight priorities and once human resources are identified as an essential element to meet the goals of the policy, it is important to qualify them well on cognitive competences and skills. Thus, several teaching methodologies are being defined to help train them in the work place. From now on we are going to explain how health services are being organized and how telehealth can help us as a key effective strategy to train large groups in a short period of time.

In order to achieve the first priority, health services had been re-organized according to their complexity levels, organized in local networks, integrated by Community Teams of Family Health and specialized teams, according to the following scheme:

The Ministry of Health has participated in this telehealth project since October 2010. The first thing done

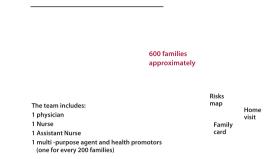


Figure 01: Family teams. Rural (counties and villages).

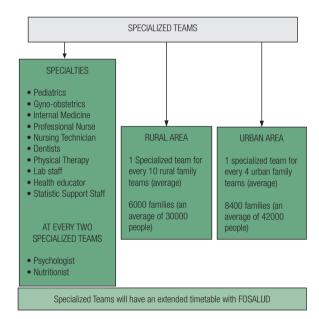


Figure 02: RIISS Presentation by Dr. Violeta Menjivar, Deputy Minister of Health.

was to organize an inter-disciplinary and inter-institutional work team. During the first part of the project a diagnosis was completed to implement several health training and adivsory projects for family health teams. At the moment a platform is being developed nationally with open source software that will enable easier inter-communication between the teams and the specialists, as well as better communication between the different institutions, both in terms of bandwidth and in terms of the number of connected places.

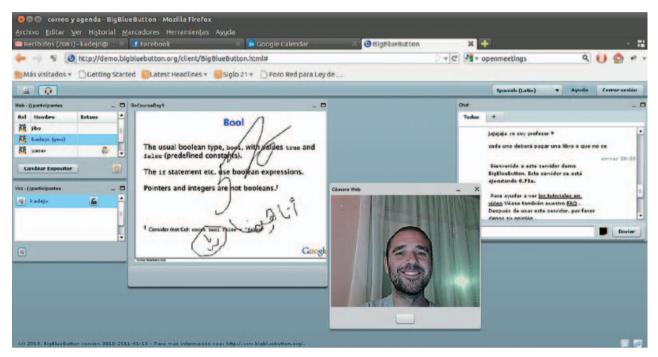


Figure 03: Big Blue Button tests

In relation to computing tools used to start telehealth activities, free and open webconferences platforms had been chosen such as *Big Blue Button* and *Open meetings* projects, which also work perfectly well in our platform of service providers and customers that it is being purchased with an equally open and free software (Debian and Ubuntu distributions by GNU/Linux). This is allowing us to concentrate the financial effort in purchasing calculation equipment and on the network, fundamental products for any basic telehealth activity.

This technological effort builds on another project called Health Channel, implemented a few years ago with the support from the Pan-American Health Organization/ World Health Organization in five health regions. Unfortunately this program was discontinued since the dedicated videoconferences technology (which implied logistics to move staff around the rooms prepared for this purpose) and the recurrent costs of the connections did not enable the project to be successful.

The State University is participating in the telehealth work team which is developing some experiences mainly in dentistry and there are also other experiences implemented in the distance learning area for specialist physiscians of children hospitals to remote health regions. In the program of medical residents for the training of specialists, a virtual basic investigation course is delivered at the Maternity Hospital. Also in Hospital Rosales and at the Medical School,

talks are recorded to be used by physicians working at the public service. These talks are uploaded in the websites of both institutions and they are available for different publics.

The experience is very incipient at the moment and the plan is to improve it. Therefore, some virtual courses for priority groups are planned for this year as well as talks and consulting activities for physicians/nurses of family teams connected through the network to specialized hospitals and the university. It is too soon to talk about concrete results of this process at the moment.

REFERENCES

- http://www.salud.gob.sv/index.php/temas/politicas-de-salud/ dir-desarrollo-rrhherencias Accessed 12/04/2011
- Ministerio de salud publica y asistencia social. Acuerdo Nº 126

 Politica nacional de Salud. Diário Oficial El Salvador, Tomo 386, numero 33 de 17/02/2010.