The incorporation of telehealth resources: a necessary agenda

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INTRODUCTION

The European Commission describes e-Health as the set of tools based on ICTs (Information Communication Technologies) that are used in the prevention, promotion, diagnosis, treatment, monitoring, health management and the lifestyle of the citizen. The concept encompasses the interaction between patients and providers of health services, data transmission between institutions or peer-to-peer communication between patients or health professionals; it also includes health information networks, electronic medical records, telemedicine services, and personal and mobile communication systems for the patients' monitoring and care.

Its tools allow, communicates in the necessary time and place, those data that are necessary for making a health decision, which can even save a person's life, which is of prime importance with the increase of the transboundary movement of citizens and patients. E-Health benefits us all because it improves the access to health care and to its quality. It places the individual at the center of the health systems and increases the efficiency, productivity and viability of the sector.

Telehealth, e-Health and Telemedicine are permeating strongly in different areas of health and care. E-Health covers administrative and healthcare processes of health service delivery. The Telemedicine is applied in clinical medicine, when the information is transferred through telephone, internet or other means in order to make a consultation, a tele diagnosis or even remote patients at a distance.

The challenge of Telehealth is also supported in maintaining a sustainable and accessible health management in the future. The aging of our society and the increase of hospital technology will strengthen the burden on the labor market of the health personnel. In this way, the electronic health is one of the best ways to face these new challenges.

Through the Telehealth solutions, the health care can be provided directly from the service provider to the patients' home. At the same time the coverage in health access is broadened, it is possible to reduce the burden of financial and human resources, being a priority aspect, taking into account the need of organizations to manage their resources in an efficient and timely manner. In this way, the development guides the search for strategies and alternatives of Telehealth as a leading role for the management of health organizations.

THE DEVELOPMENT OF TELEHEALTH AT AN INTERNATIONAL LEVEL ESULTS

The Telehealth involves the practice of medical health services and related activities, such as education, training, management and direction of health systems, remotely, through ICTs-based systems. One of the main characteristics of telehealth is the geographical separation between two or more actors involved: either a doctor and a patient, a doctor and another doctor, or a doctor and / or a patient and / or the related information or data with both.

It is clear that the Telehealth offers benefits such as the reduction of care times, more timely diagnosis and more timely treatments, improvement in the quality of service, reduction of transportation costs, continued care, more appropriate treatments, reduction of professional risks, possibility of consultation, greater coverage, timely prevention campaigns among many other virtues.

It is mentioned that the origins of Telehealth date back to the appearance of the telegraph and then began to be by radio: the telemedicine on the high sea began in the 1920s, when several countries offered medical advice from hospitals to their fleet of merchant ships, using the Morse code. It is said that the first call made by the inventor of the telephone was to consult a doctor. In the 1950s, the telemedicine was broadcast through closed circuits of television in medical congresses. In the 1960s, the NASA developed a medical care system that included the diagnosis and the treatment of medical emergencies during the space missions. In 1965, a demonstration of open heart surgery was performed with the help of a telemedicine system between the Methodist Hospital in the United States and the Cantonal Hospital of Geneva in Switzerland. The transmission was made through the first continental interconnection satellite created by Comsat called "Early Bird".

Almost none of the programs of the 1960s, 70s, and 80s were able to stand on their own at the end of subsidies. Nevertheless, the decade of the 80 was a decade of great activity that gave rise to many projects.

The stagnation of the telemedicine lasted almost until the 90's. In this decade presents a resurgence of the telemedicine that has been called the "second era of telemedicine." This decade represents the great proliferation of telemedicine experiments, many of them with a goal of continuity and profitability.

It is undeniable that the development of Telehealth has kept the pace of the development of telecommunications and the ICTs:

1876: Telephone
1895: Radio
1925: Television
1957: Satellite
1971: PCs
1980: Internet
1990: Mobile

During the 1990s, experiences were developed in the field of health education led by the Mayo Clinic of virtual symposium. In the south of Spain began the first experiences of Teleradiology. Finally, one of the experiences with which the first decade of the 21st century begins is the removal of the gallbladder from a patient located in Strasbourg, performed by a robot arm directed by a doctor located in New York.

At this time, the evolution of biotechnology, has involved increasing ability of biomedical equipments to acquire signals from the information of the human being; similarly, these devices have the necessary interfaces to then process the signals and send them to a destination through different means of communication, whether wired or wireless, the information received, either by a treating physician, the specialist or the patient himself, can be used to make a more timely decision on the subject of health care.

The clinics and hospitals have understood the importance of sharing information on the health of the population and have generated important experiences of Electronic Clinical Histories at the Region or Country level. There are successful cases such as Infoway in Canada, the HELGA project in Austria, the DRP Frances; these projects have shown that after integrating the clinical history of the population and including Telehealth practices, they have achieved better opportunity and coverage in the services of the population and efficiency in the use of the resources of the sector.

There is a series of positive confluences towards the development of Telehealth. During the II Regional Seminar on Telehealth, Dr. Andrés Fernandez, representative of the Economic Commission for Latin America and the Caribbean (ECLAC), indicated the importance of the development of Telehealth since it is within the priorities of the Development Objectives of the ODM Millennium and the World Summit of the Information Society.

Dr. Fernández also pointed out that the growing recognition of the importance of ICTs in the strategies to improve the access to quality and timely health, especially for the most vulnerable sectors of our countries, it is also reflected in the fact that it will be discussed at the next Presidential Summit of the Americas to be held in the city of Cartagena, in April 2012.

On the other hand, the United Nations Reports show that this year the world population reaches 7,000 million people. What is impressive is that it took human beings more than 40,000 years to reach a population of 2,000 million and it has tripled in the last 70 years since then.

This presents two great realities: the first is a growing number of people who live, eat, use space to live, contaminate and become ill. The other reality is the marked current penetration of telecommunications and information technology (ICT) in a massive way to that population that 100 years ago was essentially ignorant, mostly not informed about what it means to have access to education, health, goods in general and work, but nowadays they have arrived and are communicated with the rest of the world through AM radios, televisions and more recently cell phone that has generated radical change in the social structures of all countries, including the poorest ones.

The societies, rulers and development leaders must be very aware of the need to include the hundreds of millions of people who are excluded from the benefits that modern societies can offer, and today being a topic of Health and Telemedicine, the access to Health services is a mandatory point to have a world in peace and in harmony in the future.

Unfortunately, the world population is growing in absolute numbers, but even more the growth of the population that demands these health services can not be covered and becomes deficient even in countries where there are more physicians per capita.

And if this is true of doctors and health personnel in general, this deficit becomes increasingly evident in the different specialties. As the real possibilities of numerically increasing physicians and specialists in the proportion that increases the demand are very low, the only ways to reduce this growing deficit is to OPTIMIZE the use of different levels of health professionals and use technology and telecommunications in

order that knowledge can be shared, giving the needy the best care available.

CONCLUSION

It is absolutely necessary to include the hundreds of millions of people who are excluded from the benefits that modern societies can offer and that the access to health services is a mandatory point to have a world in peace and in harmony in the future. For that, it is necessary to optimize the medical-assistance services through the intensive use of ICTs, promoting the development of e-Health and Tele-medicine, with the coordinated and synergistic participation of the universities, the public and private sectors. The access to the Internet has been declared as a fundamental right by the United Nations (UN), "it can be one of the most important steps towards the achievement of the Millennium Development Goals ..."