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LOCATION:
San Jose, CA, US

ORGANIZATION:
International Virtual e-Hospital

YEAR:
2011

ORGANIZATION URL:
<http://www.iveh.org/>

STATUS:
Laureate

PROJECT NAME:
Balkan Telemedicine Program

CATEGORY:
Health

PROJECT OVERVIEW

Establishing sustainable telemedicine has become a goal of many developing countries around the world. Yet, despite initiatives from various organizations, only few mature to become sustainable programs. One successful program is the International Virtual e-Hospital (IVeH), whose mission is to create self-sustainable telemedicine and e-health programs around the world and to rebuild medical systems in the developing world, one country at a time. The organization uses telemedicine and collaboration as a platform by educating healthcare providers in the use, adoption, practice, and implementation of telemedicine, e-health and electronic libraries in order to narrow the gap created by the digital divide and healthcare imbalance. The implementation of telemedicine and e-learning in the Balkans has been pivotal in advancing the quality and availability of medical services in a region whose infrastructure and resources have been decimated by wars, neglect, lack of funding, and poor management. In the 1990s, Kosova, now an independent country, experienced an immense political and ethnic conflict, that left its medical services in a deplorable state. The new generation of medical graduates had not seen a patient in the clinic throughout their entire education. Medical school classes were being held in the basements of homes. The older professors, surgeons, and other doctors had not practiced advanced medicine and/or surgery for more than a decade. This severely hindered redevelopment of the healthcare system in Kosova, making telemedicine and medical distance learning the ideal solutions for the region. The idea to establish and implement telemedicine in the Balkans was presented for the first time at a 2000 G-8 telemedicine meeting in Berlin by Dr. Rifat Latifi, then assistant professor of Surgery at Virginia Commonwealth University in Richmond. The objective was to design and implement the Telemedicine Program of Kosova (TPK) as a sustainable and functional portal for information within and outside the region with a training center for telemedicine. The IVeH established the TPK in 2001 and it was inaugurated on Dec. 10, 2002. Since then, the program has connected seven hospitals via telemedicine, provided access to an electronic medical library, and established local leadership to run the regional telemedicine centers. The

TPK is world renowned as a model for telemedicine success in developing countries and has grown into the Balkan Telemedicine Program that now includes programs in Albania, Macedonia and Montenegro. The IVEH telemedicine centers include video conferencing rooms, tele-consultation rooms and telemedicine training rooms. Each room is equipped with Polycom's high-definition room telpresence systems, Criticare Vitalsign Monitoring, and Teletrauma Real Time Monitoring and Capture Stations. A Polycom firewall traversal solution allows for seamless video collaboration with outside organizations, something that is critical to the success of the program. The most significant challenges in implementing the IVEH programs have been changing the mind set of physicians, and convincing governments of the need for such investments. Other challenges include administrative issues and managing projects with multiple players representing different backgrounds, cultures, education, goals, and mentalities. Creating true partnerships and transparency in the region has been the key to IVEH's success.

SOCIETAL BENEFITS

This project brings life-changing and life-saving medical care to people in developing countries, and it educates and empowers regional healthcare practitioners. The IVEH's unique approach to telemedicine, with its unwavering commitment to education and local ownership, ensures sustainability of the program, permanently altering and elevating the standard of care.

PROJECT BENEFIT EXAMPLE

The beneficiaries of the Balkan Telemedicine Program, and IVEH programs around the world, are patients and their doctors and nurses who benefit from educational programming and expertise provided through the network. In the early days of the telemedicine program in Kosova, the program's main webmaster, a 30-year old male, himself a doctor, suffered a major heart attack with significant damage to the heart muscle. As his situation deteriorated, a tele-consultation with a cardiac surgeon and a cardiologist in Oslo, Norway was conducted. Live examination and viewing of the cardiac echo was done by a consortium of doctors. The experts in Oslo recognized how grave the situation was becoming and advised immediate transfer to a center with higher expertise in cardiac surgery and monitoring. This was one of the first TPK tele-consultations. While the doctors in Prishtina were able to consult with experts, the patient died before he could be transferred. The very program that the patient was working so hard to establish has changed the way heart attacks are managed at the University Hospital in Prishtina, resulting in improved outcomes for countless patients. The telemedicine program provides powerful international educational tools to be leveraged in improving the health conditions of populations by providing to medical personnel the right information, at the right time, in a manner that respects the rights of such populations and builds a sustainable foundation for evidence-based medicine using advanced technologies. More than 100,000 students, doctors, nurses, and information technology professionals have benefited from the program. There have been approximately 1,000 doctors, nurses, IT, and other healthcare professionals trained using telemedicine and e-health applications through a series of interactive and hands-on lectures. And through the Continuing Medical Education (CME) arm of the KTP, 2,300 certificates of CME have been awarded to doctors, nurses and other healthcare providers in Kosova.

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes



ADDITIONAL PROJECT INFORMATION

A Committed Leader Dr. Latifi is well-known for his commitment to improving medical care for people in the developing world. Born in Kosova, Dr. Latifi received his medical degree from the University of Prishtina and later trained as a surgeon at the University of Prishtina and at Yale University. In addition to his role as founder of the International Virtual e-Hospital, and director of the Telemedicine Project of Kosova, he is vice chairman of International Relations and associate director of Trauma, Critical Surgical Care and Emergency Surgery at the University of Arizona. He has published eight books and more than 100 articles, reviews and chapters on surgical nutrition and metabolism, laparoscopic surgery and telemedicine and telesurgery. Three of Dr. Latifi's books ("Current Principles and Practices of Telemedicine and e-Health," "Telemedicine in Developing Countries: From Inception to Implementation," and "Telemedicine and Telepresence for Trauma and Emergency Care Management") have become default reference texts for all things related to starting a telemedicine program. (See Appendix 3) In a recent rare honor, Dr. Latifi was named international health adviser to the prime minister of Kosova. In this capacity, he will work with medical professionals and government officials in the Republic of Kosova to identify ways to improve health care for all Kosovars. Collaboration and Partnership International partnerships have been one of the keys to the success of the Balkan Telemedicine Program. For example, the first phase of the Balkan Telemedicine Program was funded by the European Agency for Reconstruction (EAR) of the European Union. More recently, the IVeH has collaborated with the Department of Surgery at the University of Arizona to gain a cooperative agreement of \$750,000 from the United States Agency for International Development (USAID) for the establishment of its National Telemedicine Center of Albania. The IVeH is currently in the process of securing an additional \$1.5 million from USAID to complete its 14 centers in Albania. The organization has also partnered with EUCOM (European Command of US Military) for both the Albania and Macedonia program implementations. EUCOM is rebuilding all the centers in both those countries and possibly in Montenegro. The World Health Organization (WHO) is another critical partner for IVeH. It runs a program called the HINARI Access to Research Initiative. The WHO works with publishers around the world to gain access to their books and journals at greatly discounted rates and maintains this portal of information that countries are able to access. Each regional telemedicine center has developed its own educational program pertaining to the electronic medical library and other aspects of telemedicine and telepresence. The importance of this resource cannot be overstated. There were no medical journals available at the University of Prishtina in 1999. The libraries were destroyed during the war. When the IVeH opened the telemedicine center in Prishtina in 2002, it offered its physicians 1,200 journals online, available 24 hours a day, with a librarian to help access the information. The electronic library logged approximately 54,000 visits within the first three years of operation.