

# INFORMATION TECHNOLOGY IN SUPPORT OF HEALTH CARE



The need for new ways to providing more efficient health care services, coupled with major advancements in information and communications technology have resulted in the increased use of the Information and Communications Technology (ICT) applications over the past decade.

ICT in general, and the Internet in particular, can help generate the human capital needed by the health systems. ICT has the potential to revolutionize the way medicine is learned by students and healthcare professionals.

Its role is one of providing support to the human resources generation function by facilitating initial training and continuing education processes in some form –improving access, increasing effectiveness, lowering costs, etc. A study of health telematics projects in fifteen European countries, undertaken by the European Health Telematics Observatory (EHTO) shows that training had a 6% share of all health telematics uses.

## WHAT IS HEALTH TELEMATICS?

Health Telematics is a composite term for health-related activities, services and systems, carried out over a distance by means of information and communications technologies, for the purposes of global health promotion, disease control, and health care, as well as education, management, and research for health.

## WHAT IS E-HEALTH?

E-health is the combined use in the health sector of electronic communication and information technology (digital data transmitted, stored and retrieved electronically) for clinical, education and administrative purposes, both at the local site and at a distance.

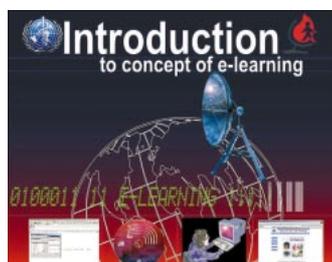
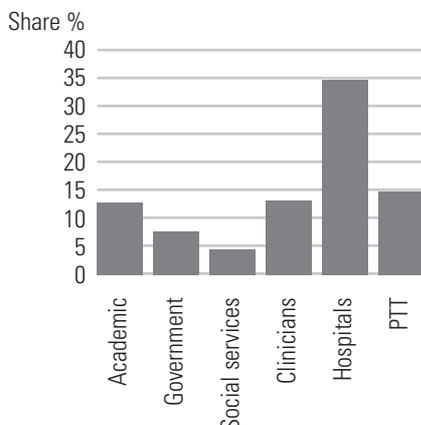
## WHAT IS TELEMEDICINE?

The delivery of health care services, where distance is a critical factor, by health care professionals using information and communications technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interest of advancing the health of individuals and their communities.



### Key Actors in Health Telematics in Europe

Source: The European Health Telematics Observatory, (EHTO)



ICT activities in the area of telemedicine will be carried out in close collaboration with the Evidence for Information and Policy Cluster. E-Health/Telemedicine should be directed by health needs and not driven by technology. This would be the case for EHT since it would be concentrated to support countries request. E-Health/Telemedicine has to be supported by various categories of stakeholders from the health sector as well as from industry. The situation in Europe is illustrative. There, health telematics activities are driven by a broad spectrum of individual and institutional actors – hospitals (34%), telephone utilities (14%), academic institutions (12%), clinicians (12%), governments (7%) and social services (4%).

In spite of the potential that E-Health/Telemedicine has given the world to improve the quality of health care, a number of barriers, at various levels, would need to be overcome for health systems to take full advantage of these opportunities. These barriers are not uni-dimensional, focusing on technical knowledge as previously thought, but rather a multi-dimensional construct, encompassing technical knowledge, economic viability, organizational support and behaviour modification.

**EHT/IT** translates material practices, guidelines, protocols and E-learning tools, for health promotion and disease prevention, in areas such as, Diagnostic Imaging, Laboratory disciplines, Medical Devices and equipment, District Surgery, Blood Transfusion Safety, HIV/AIDS Diagnosis, and Transplantation Services.

An important role for WHO/EHT is to continuously monitor developments in relevant fields and countries' readiness for Telehealth, and advise Member States as to when it is most opportune to introduce such services.

### EDUCATION AND TRAINING

EHT/IT aims to assist countries by providing evidence-based policy guidance on human resources development with particular focus on increasing global migration of health professionals.

EHT/IT plans and manages the delivery of information technology and telecommunications services, to support the basic operational frameworks.<sup>1</sup>

#### Internet development:

EHT Website, rich ICT tool that enhances access to EHT products and activities.

#### Multimedia Development:

ICT management for the development of the appropriate package format of the standards, guidelines and training materials.

#### E-health/Telemedicine Development:

The availability of e-health to facilitate medical care, irrespective of distance and availability of medical specialists in site make it attractive to the health care sector.

### ITC/EHT TOOLS:

<sup>1</sup> Department Essential Health Technologies, <http://www.who.int/eha>  
contact us: [eha@who.int](mailto:eha@who.int),  
Fax. + 41 22 791 4836

Monitoring developments will also enable the Organization to address changes in health care delivery systems in the future, which will be brought about by developments in information and communication technologies, especially in support to developing countries and countries in transition, for which these developments will represent disruptive changes.