WORLD HEALTH ORGANIZATION

eHealth: proposed tools and services

Report by the Secretariat

1.   Noting the potential impact that advances in information and communication technologies could have on health care and health-related activities, resolution WHA58.28 urged Member States to plan for appropriate eHealth services in their countries. It recognized that a WHO eHealth strategy would serve as a basis for WHO's activities in eHealth and requested the Director-General to submit to the Executive Board at its 117th session a list of proposed activities, including budgetary implications, aimed at developing tools and services for use by Member States. The following paragraphs summarize work on eHealth throughout the Organization, and set out proposed activities based on identified needs for products and services in countries.

WHO'S ACTIVITIES IN eHEALTH

Global

2.   eHealth activities at global level fall into two broad categories, namely: access to reliable, high-quality health information for professionals and for the general public; and use of information and communication technologies to strengthen various aspects of country health systems, such as eLearning for development of human resources and support for delivery of care services.

3.   WHO launched the Health InterNetwork Access to Research Initiative (HINARI) in 2002 in partnership with leading biomedical publishers, academic institutions, and organizations of the United Nations system. It provides free or very low-cost online access to 2900 major journals in biomedical and related social sciences to local, non-profit institutions in developing countries, and is one of the world's largest collections of biomedical and health literature. Currently 1400 institutions in 104 countries participate in the network; during 2004, users downloaded over 1 700 000 articles.

4.   To cater to the needs of the general public, WHO started the Health Academy in December 2003. This innovative approach to improving health provides the general public with health knowledge through eLearning, designed to help people make the right decisions for preventing disease and leading healthier lives. The initiative draws on the Organization's information resources and expertise in health and its access to health information worldwide.

5.   Regional language-specific eHealth networks have been developed to support the creation and operation of regional knowledge communities: Arabic in the Eastern Mediterranean Region, and Spanish in the Region of the Americas. An interregional Portuguese-language network (ePORT) has been created for WHO's Portuguese-speaking Member States. ePORT aims at improving access to health-relevant information available in Portuguese, building on the work of the Latin American and

Caribbean Center on Health Sciences information (BIREME) and, in particular, its Virtual Health Library.

6.   Information and communication technologies have useful applications for health-care delivery, including at primary level. Sets of basic requirements for services will be promoted, covering policy, quality and safety, access and use, and guidelines and tools developed in support of more effective health services.

Regional

7.   The **Regional Office for Africa** has increased its engagement in eHealth matters, and designated a regional focal point for eHealth to ensure overall development and coordination of relevant initiatives. There is increased awareness of, and interest in, eHealth in countries of the Region; more than two thirds participated in the global eHealth survey conducted in 2005. A eHealth "roadmap" is being finalized and feasibility studies are planned in a number of countries. The Regional Office intends to work with other institutions involved, such as the eAfrica Commission, with a view to developing synergy that would enable the Region to leapfrog stages in the eHealth development process, and benefit from best practices at global level.

8.   eHealth is central to the knowledge management and sharing strategy of the **Regional Office for the Americas**. Since 1991 the Regional Office has launched and promoted many initiatives and publications related to eHealth, in collaboration with the World Bank, the Inter-American Telecommunication Commission, the Institute for Connectivity in the Americas, and national agencies.

9.   Most Member States in the Region have invested in information-technology resources and telecommunications infrastructure, and have the capacity in terms of health professionals, education, and governance institutions to take advantage of the opportunities created by eHealth. They have also started to use telehealth as a means of increasing access of the population to services.[1]

10.   Programmes at various stages of conceptualization or implementation include: continued deployment of the Virtual Health Library as a key eHealth initiative in digital access to public-health information; assessment of eLearning initiatives; provision of technical support for intercountry collaboration on telehealth, distance education, and electronic health-records; and collaboration with the United Nations Office for Outer Space Affairs and the European Space Agency on communities of practice for eHealth in the Americas.

11.   The **Regional Office for South-East Asia** lays particular emphasis on applications of eHealth for prevention and patient management, and on providing support to Member States in establishing safe and reliable applications through adoption of sets of basic requirements for care-delivery services. Pilot telehealth projects have been initiated in three countries, and are being planned in two others.

12.   A number of Member States in the Region have taken steps towards creating an enabling environment for use of information and communication technology in the health sector, through such measures as enacting legislation, framing policy, training of specialists for health, establishing information technology sections in central-level hospitals for maintaining eHealth systems,

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[1] Telehealth is understood as the use of electronic information and communication technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration.

introducing telemedicine, and instituting eProcurement. Three countries have created national centres for eHealth.

13.   The **Regional Office for Europe** has developed an innovative approach to supporting country work through eHealth, in view of the potential impact of advances in information and communication technologies on development of health systems, including health-care delivery, public health, research and health-related activities for the benefit of both low- and high-income countries; and in support of resolution WHA58.28 and Target 18 of Millennium Development Goal 8: to make available the benefits of new technologies, especially information and communication. Support is provided to Member States in the appropriate use of eHealth as a tool for strengthening health systems in the context of their long-term strategic plans for health-system reform, including legal, ethical and normative issues.

14.   In collaboration with Member States, WHO has built strong partnerships with ITU, the European Commission, and the European Space Agency in relation to eHealth. For example, a joint effort, the Telemedicine Alliance, has drawn up a strategy for interoperability of eHealth applications across countries of Europe.[1] The Regional Office is also coordinating the first European-wide survey on eHealth with the Global Observatory for eHealth to collect, analyse and disseminate knowledge that will facilitate responsible use of eHealth for improving health systems in the 52 Member States of the European Region.

15.   The **Regional Office for the Eastern Mediterranean** has introduced a number of initiatives to support eHealth, including work with decision-makers in setting policy; education and training of health-care professionals, eHealth operators and the public; planning, monitoring and evaluation; and development of an infrastructure for information and communication technologies.

16.   Open access to health information resources is provided through electronic publishing and the Regional Office's Virtual Health Sciences Library. Support to HINARI includes provision of Internet access to institutions, training, translation of materials, and approaches to publishers, 35 of whom now provide free online access to their journals. The Health Academy was piloted in 40 schools in two countries of the Region.

17.   The Regional Office also provides consulting and advisory services in support of such applications as telemedicine and use of geographic information systems. A survey was carried out in seven countries on use of the Internet and e-mail by physicians.

18.   The main eHealth activity in the **Western Pacific Region** is the Pacific Open Learning Health Net, launched in 2001. Its goal is to improve the quality and standards of practice of health professionals in Pacific Island countries through training and continuing education via open and self-directed learning modalities. So far, learning centres are operational in 10 countries. Pilot courses on a variety of subjects have been conducted through the learning centres, training some 300 health professionals.

19.   In addition, the Regional Office provides technical support in electronic medical records and hospital information systems as appropriate, to a number of developing countries of the Region.

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[1] *Towards Interoperable eHealth for Europe: Telemedicine Alliance strategy*. Noordwijk, ESA, WHO, ITU, 2005.

PROPOSED ACTIVITIES

20. **WHO eHealth legal and ethics committee.** Respect for human rights and privacy are crucial for the exchange of medical data and electronic health records within and between countries. Increased use of eHealth services requires a legal and ethical environment that ensures data privacy, security and confidentiality. Through an eHealth legal and ethics committee, practical guidance will be provided to Member States on promulgating laws and regulations, through preparation of draft frameworks that can be adapted to country specifics.

21. **Global Observatory for eHealth.** A decentralized network of national nodes coordinated by WHO, the Global Observatory for eHealth, systematically analyses and reports on use of eHealth in Member States. The aim is to improve the evidence base in order to guide policy and practice through analysis of country indicators, reporting on best practices for integration of eHealth into national health systems, evaluation of impact, and formulation of standards. The Observatory will prepare frameworks, guidelines and tools as support in formulation and implementation of eHealth policy and strategy. It will also collect and collate available information on technical standards so that they can be used to improve interoperability and the quality, safety, and performance of eHealth systems.

22. **Public-private partnerships in eHealth.** Delivery of eHealth depends on collaboration of many stakeholders, including those in the private sector. Public-private partnerships need to safeguard people's rights, provide high-quality and safe care, and be mutually beneficial. Principles and frameworks will be drawn up for governance of eHealth partnerships, which will facilitate national cooperation and international exchange in eHealth services, promote research and development in information technology for public health, and encourage donation of equipment and software.

23. **Information and communication technologies in support of human resources for health.** Many countries, particularly developing ones, experience workforce shortages. In some countries, an imbalance in the set of skills required for providing high-quality health services makes it necessary to retrain health professionals in order to build up competencies more aligned with needs and priorities. In all cases, there is a need for continuing professional development and measures to prevent brain drain. Information and communication technologies can significantly improve the way health care professionals are trained through targeted eLearning programmes, and can improve the efficiency of health services, especially in areas with a small health workforce. A framework will be drawn up for educating and training health professionals, especially for facilitating their continuing professional development through distance learning, open learning, eLearning and other methods that use information and communication technologies. Such training, provided in the home country, and in local languages where possible, would help to reduce the risk of brain drain, which increases when health workers travel abroad for further training. At the same time, training in information and communication technologies will be incorporated in health education in order to build up the technical competency of health professionals.

24. **Information and communication technologies for health education and promotion.** The spread of information and communication technologies, including the Internet and mobile telephones, provides an opportunity to reach the public at home, school, and the workplace. These technologies can be used to provide health education and promotion, monitor chronic conditions, and deliver information on demand. Initiatives will be launched that promote quality criteria for health content and encourage content development appropriate for different audiences.

25. **eHealth for health-care services.** eHealth can contribute to improving quality and safety of, and access to, health care. The Secretariat will develop and promote "eHealth essentials", a set of

minimum requirements for responsible use of eHealth within health systems, including the technical, human and financial resources required at the operational, managerial, and political levels of the health system. Model eHealth solutions will be identified or developed which, with appropriate modification, could be established in national centres and networks of excellence for eHealth.

26.   An outline of the budgetary implications of proposed activities is attached as an annex.

ACTION BY THE EXECUTIVE BOARD

27.   The Executive Board is invited to note the above report.

ANNEX

PROPOSED EHEALTH TOOLS AND SERVICES: BUDGETARY IMPLICATIONS

Activity	**Output**	**Timeframe**	**Organizational level**	**Estimated budget (US$ m)**
Legal and ethics committee	• Ethical and legal guidelines • Network of experts for technical support to Member States	2006-2007	Global	0.5
Global Observatory for eHealth	• Annual eHealth report • Topic-specific guidelines and reports • Best practices and standards reports • Guidelines and frameworks for eHealth policy and strategy	Started 2005	Global; regional	1.5
Public-private partnerships	• Platform for public-private partnerships, in eHealth • Principles for governance of eHealth partnerships	2006-2007	Global	0.5
Information and communication technologies in support of human resources for health	• Framework for education and training, including competency in information and communication technology • Multilingual initiatives	2006-2007	Global; regional	0.75
Health education and promotion	• Support for Member States • Quality criteria for health content	2006-2007	Global; regional	0.5
eHealth in health care	• "eHealth essentials" • Model solutions, demonstrated in national centres of excellence	2006-2007	Global; regional	1.5

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