COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CTSD)

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Submissions from entities in the United Nations system and elsewhere on their efforts in 2012 to implement the outcome of the WSIS

Submission by

World Health Organization

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 16th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

World Health Organization

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Mr Supachai Panitchpakdi
Secretary-General
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19 December 2012

Dear Mr Panitchpakdi,

Thank you for your letter of 31 October 2012 in which you invited the World Health Organization's input to the UN Secretary-General's report to the Commission on Science and Technology for Development (CSTD) on "Flow of information for the follow-up to the World Summit on the Information Society" and requested by ECOSOC resolution 2006/46.

I am pleased to attach herewith the World Health Organization's contribution to the Commission for the Secretary-General's report.

Yours sincerely,

Dr Hans Troedsson
Executive Director
Office of the Director-General

Encl: as stated.

World Health Organization

WHO Contribution to the 2012 UNSG report on the World Summit on the Information Society, to the Commission on Science & Technology for Development

eHealth action line (C7)

Priority areas in this World Summit on the Information Society (WSIS) action line include improving health information systems, facilitating access to knowledge and information in health, promoting the adoption of international standards for exchange of health data, and strengthening systems for disaster response and communicable diseases monitoring and alert.

Information and communication are core to the delivery of health services and effective public health action. Every field mission, country office, ministry, partnership and programme depends on reliable and timely information to do their work. As a basis for health action and advocacy the world over, the role of information gathering, analysis, reporting and dissemination remains fundamental.

The WSIS called for participation of all stakeholders. In the health sector, this includes: governments, multilateral agencies, development partners, health care organizations, academic, research and public health institutions, standards development organizations, health care workers, entrepreneurs, information and communication technology (ICT) experts from the public and private sectors, citizens and nongovernmental organizations.

The WSIS action line on eHealth aligns with World Health Assembly Resolution on eHealth, adopted by the Fifty-eighth World Health Assembly in 2005. Resolution WHA58.28[1] urges Member States to consider drawing up long-term strategic plans for the development and implementation of eHealth services. It calls on governments to form national eHealth bodies to guide policy and strategy development in eHealth including data security, privacy, interoperability, cultural and linguistic issues, infrastructure, funding, monitoring and evaluation. WHO recommends that each Member State establish a national-level body for eHealth, formally supported by the Ministry of Health as a key instrument in implementing the eHealth resolution.

Since 2005 information and communication technologies have become central to health security, health services delivery, and the transformation of health systems worldwide. The use of the Internet in health has far-reaching implications for public health including for the quality of information, data security and privacy, and the promotion and sales of medical products and services. In addition to resolutions adopted by the WHO Executive Board and the regional committees, global initiatives have encouraged countries to integrate the use of information and communication technologies in health. For example, in their Global Strategy for Women's and Children's Health[2], the Commission on Information and Accountability for Women's and Children's Health makes recommendations, of which the third, on eHealth and innovation, states that by 2015, all countries have integrated the use of information and communication

[1] *http://www.who.int/gb/ebwha/pdf_files/WHA58/WHA58_28-en.pdf*
[2] http://www.everywomaneverychild.org *(accessed 19 December 2012)*

technologies in their national health information systems and health infrastructure[3]. Globally, 80 national eHealth strategies and plans have been developed and are available through WHO.[4]

WHO's Global Observatory for eHealth[5] monitors country progress on the World Health Assembly Resolution and the WSIS agenda, with the aim of providing information on trends and developments in effective practices in eHealth. Since the first global survey in 2005 there has been continued country progress in building the foundation policies, strategies and infrastructure for eHealth. Across the board, the Observatory reports that there is significant experimentation in eHealth in countries, even as they build the necessary infrastructure and policy environment to support broader eHealth adoption. In many countries, barriers to scaling up reflect the need for further evidence and information, including on the impact of eHealth supporting health systems development and universal health coverage. Towards that end, WHO published a special theme issue on eHealth of the *Bulletin of the World Health Organization*.[6] The global survey for 2013 will focus on the use of eHealth for women's and children's health. In 2012 WHO published the second compendium of innovative health technologies and eHealth solutions for low-resource settings,[7] as well as reports on Legal frameworks for eHealth, and Management of patient information: trends and challenges in Member States.[8] In collaboration with the ITU, WHO is making available a collection of eHealth best practices, and a database of best practices and lessons learned in eHealth implementation has been launched.

Public-private partnerships play an important role in eHealth implementation, by building on combined knowledge and experience, and enabling new models and methods of collaboration. An example is the Innovation Working Group (IWG), created in 2010 to tap into the potential of innovations that can accelerate progress towards the health MDGs, is co-chaired by the government of Norway and Johnson & Johnson. The IWG members work with the knowledge that innovation can enable further progress toward the reduction of maternal and child health. Through catalytic partnerships, four taskforces of the IWG (on checklists, medical devices, sustainable business models and innovative financing) have worked on developing examples of innovations in their respective fields that can help further this progress. The IWG continues working to find innovative ways to deliver enabling environments and solutions which can be brought up to scale based on the examples and pilots that worked, for a real impact on women's and children's health.[9]

As reported in previous years, a number of WHO's programmes respond to the call for *improving access to the world's health information*, in partnership with the private sector. Chief among them, the HINARI Access to Research Initiative established by WHO together with major publishers, enables developing countries to gain access to what is now the world's largest collection of biomedical and health literature. Today more than 9,000 journals and 7000 books in 30 languages are available to 5200 health institutions in 115 countries, areas and territories benefiting many thousands of health workers and researchers. An external evaluation[10] has provided evidence that the availability of health literature through information and communication technologies has improved health in Member States, showing that researchers and health care providers are better able to introduce evidence-based policy, publish in international journals, develop treatments, research local health challenges, and contribute to meeting the Millennium Development Goals.

The adoption of eHealth standards is essential to achieve the full potential of information and communication technologies and medical devices in support of health systems development. Lack of data interoperability within and between systems hinders care and leads to fragmentation of

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[3] http://www.who.int/topics/millennium_development_goals/accountability_commission/en/ (accessed 23 November 2012).
[4] www.who.int/goe/en
[5] www.who.int/goe/en
[6] *Bulletin of the World Health Organization*, **90**(5), Geneva, 2012.
[7] http://www.who.int/ehealth/resources/compendium2012/en/index1.html (accessed 28 November 2012).
[8] http://www.who.int/goe/publications/en/ (accessed 19 December 2012).
[9] http://www.everywomaneverychild.org/resources/innovation-working-group (accessed 19 December 2012).
[10] *http://www.research4life.org/wp-content/uploads/2012/10/StrategyR4L2012.pdf*

health information systems. Effective and timely transmission of personal data or population data across information systems requires adherence to health data standards and related technology standards. WHO has established a forum on health data standardization and interoperability[11] that brings together stakeholders from the public and private sector to raise awareness, build capacity and promote the adoption of standards at all levels of health systems. Joint WHO-ITU technical meetings on eHealth standardization have highlighted challenges to be addressed at all levels of the health system. A WHO handbook is being developed to assist Member States in the identification and use of appropriate eHealth standards. Capacity building at country level to enable national staff to contribute to and use standards is under way.

The use of information and communication technologies in education and training is essential to address critical shortages and gaps in the training of personnel in public health matters. Examples of resources available for target audiences (such as policy-makers, researchers, health personnel, the public, and other agencies) include training on the Integrated Management of Childhood Illness;[12] reproductive health; evidence-based medicine and research; violence and injury prevention; management of disrupted health sectors and the International Health Regulations.

Improving access to *quality health care information* for policymakers, health care workers, patients and their families is a shared goal of many stakeholders. Governments are concerned with consumer trust and therefore focus on policy measures to advance consumer protection, safety and privacy in the online world. There are notable professional and civil society initiatives advocating for inclusiveness and free access to health information in all its forms, including for open access to health research data and prospective research registration in publicly accessible national health research registries. However, major challenges remain. Examples include ensuring that information is accurate, relevant to diverse cultures, and up-to-date; leveraging the right technologies; and developing sustainable governance and business models to enable equitable, affordable access and outreach.

South-south collaboration, capacity building and networks are facilitated through programmes such as the *ePORTUGUESe Programme*,[13] which supports Portuguese-speaking countries to improve access to health information in their own language, using ICT. The development of a Virtual Health Library in each country was based on a model created by the Latin American and Caribbean Centre for Health Sciences Information and adapted to local conditions. It has been used in Latin America for more than 15 years with an interface in English, Portuguese and Spanish. A WHO online course on Research for Patient Safety in Portuguese attracted more than 15,000 subscriptions, showing the value and reach of capacity building through ICT.

The crucial importance of ICT in *systems for emergency response* was highlighted again in 2012 by global earthquake activity, cyclones and floods. Such events underscore the world's reliance on ICT in preparedness and response. Examples of the use of ICT in these crises include timely local reporting and mapping, the rapid and secure sharing of information, the use of web-based and mobile technologies alongside traditional media for public information exchange, the increasing role of social media, and the need to connect communities and those on the front lines of care in emergencies. As was seen in recent years with the Influenza A (H1N1) global pandemic (2009), the earthquake in Haiti (2010), and the tsunami in Japan (2011), ICT plays a vital role in all public health events, connecting research, academic, laboratory and clinical institutions, professionals, communities, and citizens for health action and response.

In addition, *public health reporting* is formally addressed through the revised International Health Regulations (IHR)[14]. The IHR entered into force in 2007 and were tested with the Influenza A (H1N1) pandemic in 2009 when, in addition to formal communication channels, new media

[11] http://www.who.int/ehealth/en/ (accessed 28 November 2012).
[12] http://www.who.int/maternal_child_adolescent/topics/child/imci/en/index.html (accessed 23 November 2012).
[13] http:www.who.int/eportuguese/en (accessed 19 December 2012).
[14] www.who.int/ihr

emerged as an important factor in global health communication. The IHR commit all countries to collectively apply agreed rules for preventing and managing public health risks. Country preparedness includes developing 8 core capacities, as well as capacities at points of entry, and 4 relevant hazards (zoonotic, food safety, chemical, radiological and nuclear); a monitoring tool shows progress in development of these national capacities.

Developing a national eHealth strategy is a goal of many countries. A national eHealth programme can contribute to reaching health and development goals and, for some countries, will constitute a major step towards implementing recommendations such as those of the UN Commission on Information and Accountability for Women's and Children's Health[15], towards the improvement of *health information systems*. Experience has shown that harnessing ICT for health requires planning at the national level, to make the best use of existing capacity while providing a solid foundation for investment and innovation. Establishing the main directions as well as planning the detailed steps needed are key to achieving longer-term goals such as health sector efficiency, reform or more fundamental transformation. Both WHO and the ITU have recognized the importance of collaboration for eHealth in their global resolutions[16], which encourage countries to develop national eHealth strategies. Towards that goal, both organizations collaborated in the development of a *National eHealth Strategy Toolkit* as a comprehensive guide that governments, their ministries, departments and agencies can adapt to suit their own circumstances. Published jointly by WHO and ITU in 2012,[17] it provides governments with a method for the development and implementation of a national eHealth vision, action plan and monitoring framework, capturing the national context and priorities, building on available capabilities and taking advantage of opportunities to complement development projects.

As in 2011, the current global economic scenario makes it clear that scarce funds for eHealth must be invested strategically. Going forward, it is important to invest in research that can guide eHealth policy and practice in countries and particularly in emerging economies. Given the current transformation of communications platforms, applications and services in health, it is important to develop a better understanding of the implications of these changes as they affect health systems and services. As the number of stakeholders participating in eHealth increases, the effects of policies on the evolution of the sector are more difficult to assess. Policy makers at national level need to develop consensus around the pertinent policy problems and possible solutions. In this respect, policy experts in communications, media and health all have an essential contribution to make towards implementing this action line.

A decade after the first WSIS event, WHO as facilitator of this action line recognizes the broad scope of ICT in health and the significant effort still required to meet the WSIS commitments. The launch of the WHO-ITU National eHealth Strategy programme represents an important new commitment. In addition, an on-going priority is addressing common concerns related to the legal and regulatory landscape as well as the improvement of systems for monitoring disaster and emergency response, which requires collaboration between countries, effective and durable public-private partnerships, and investment across sectors. ICTs can contribute to safety, security and quality of life through the use of simple and affordable technologies. Yet further innovation is critical to ensure that these technologies are effective, appropriate, reliable and affordable in all contexts. The WSIS process made it clear that the contribution of all stakeholders is needed to make the most of ICTs, and to ensure that they benefit all of society. This holds true for health, where stakeholder consultation is essential to understanding people's priorities, needs and capabilities. WHO, through its global programmes and partnerships, looks forward to continued engagement and progress in reaching the WSIS goals, to advance the health of people everywhere.

[15] www.un.org/.../pdf/Press_Release_Accountability_16Dec_final.pdf
[16] World Health Assembly Resolution 58.28 (2005) and ITU World Telecom Development Conference Resolution 65 (2010)
[17] National eHealth Strategy Toolkit, http://www.who.int/ehealth/en/ (accessed 23 November 2012).