eHealth Standardization and Interoperability and related eHealth activities at WHO Headquarters

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International Telecommunication Union – Study Group 16
Objectives

• To introduce e-health related activities of each organization and group

• To discuss further collaboration of each organization and group
WHO’s Organizational Structure
Mission

WHO is the directing and coordinating authority for health within the United Nations system.

It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

Source: http://www.who.int/about/en/
Health Systems and Innovation Cluster
Assistant Director-General

Enabling Functions
(Management and External Relations)
Secretariat Independent Expert Review Group
Technology Transfer Initiative

Core Departments
Essential Medicines and Health Products
Health Statistics and Information Systems
Health Systems Financing
Public Health, Innovation and Intellectual Property
WHO Centre for Health Development

Ethics and Social Determinants
Health Systems Policies and Workforce
Knowledge Management and Sharing
Patient Safety Programme

Partnerships
Global Health Workforce Alliance
Alliance for Health Policy and Systems Research

eHealth Unit
eHealth
Standardization and Interoperability
Standardization and Interoperability

• Normative work:
  – WHO Handbook on eHealth Standardization and Interoperability
  – Health Workforce Registry Minimum Data Elements

• Provide guidance to Member States in assessing and implementing interoperability standards for eHealth systems and services.
eHealth Milestones

WHA58.28

The Fifty-eighth World Health Assembly,

Having considered the report on eHealth,1

Noting the potential impact that advances in information and communications technology could have on healthcare delivery, public health, research and health-related activities for the benefit of both low- and high-income countries;

Aware that advances in information and communication technologies have raised expectations for health;

Respecting human rights, ethical issues and the principles of equity, and considering differences in culture, education, language, geographical location, physical and mental ability, age, and sex;

Recognising that a WHO eHealth strategy would serve as a basis for WHO’s activities on eHealth;

Recalling resolution WHA58.9 on cross-border advertising, promotion, and sale of medical products through the Internet;

Stressing that eHealth is an effective and secure use of information and communications technologies to support health and health-related fields, including healthcare services, health surveillance, health literature, and health education, knowledge and research;

1. URGES Member States:

(1) to consider drawing up a long-term strategic plan for developing and implementing eHealth services in the various areas of the health sector, including health administration, which would include an appropriate legal framework and infrastructure and encourage public and private partnerships;

(2) to develop the infrastructure for information and communication technologies for health as deemed appropriate to promote accessibility, affordable, and universal access to their benefits, and to continue to work with information and telecommunication agencies and other partners in order to reduce costs and make eHealth successful;

(3) to build on closer collaboration with the private and non-profit sectors in information and communications technologies, so as to further public services for health and make use of the eHealth services of WHO and other health organizations, and to work together in the area of eHealth;

(4) to endeavour to reach communities, including vulnerable groups, with eHealth services appropriate to their needs;

1 Document A/HRC/38/19.

Recognized the value that ICT bring to health

eHealth Milestones

WHA66.24

SIXTY-SIXTH WORLD HEALTH ASSEMBLY

Agenda item 17.5
27 May 2013

eHealth standardization and interoperability

The Sixty-sixth World Health Assembly,
Having considered the report by the Secretary,1
Recalling resolution WHA66.24 on eHealth;
Recognizing that information and communication technologies have been incorporated in the Millennium Development Goals;
Recognizing that the Regional Committee for Africa adopted resolution AFR50/5, on eHealth in the African Region and that the 51st Directing Council of the Pan American Health Organization adopted resolution CD51.125 on eHealth and has approved the related Strategy and Plan of Action;2
Recognizing that the secure, effective and timely transmission of personal data or population data across information systems requires adherence to standards on health data and related technology;
Recognizing that it is essential to make appropriate use of information and communication technologies in order to improve care, to increase the level of engagement of patients in their own care, as appropriate, to other quality health services, to support sustainable financing of health care systems, and to promote universal access;
Recognizing that the lack of a seamless exchange of data within and between health information systems hinders care and leads to fragmentation of health information systems, and that improvement in this is essential to realize the full potential of information and communication technologies in health systems strengthening;
Recognizing that, through standardized electronic data health workers can gain access to fuller and more accurate information in electronic form on patients at the point of care, pharmacies can receive prescriptions electronically; laboratories can transmit test results electronically; imaging and diagnostic centers have access to high-quality digital images; rescues can carry out clinical audits or comparisons; and hospitals can provide timely information to stay informed (e.g. via an intranet), thus improving patient care; recognize that electronic health records on vital events in a timely manner, and can implement public health measures based on the analysis of health data, and individuals can gain access to their personal medical information, which supports patient empowerment;

1 Document A66/1405I.
2 Document CD51/403.

Standardization and Interoperability

- Facilitates the *Global Forum on eHealth Standardization and Interoperability*
- Next Forum: February 2014 *Inter-Ministerial Policy Dialogue on 2nd WHO Forum on eHealth Standardization and Interoperability*
Generalized Categories of Standards relevant to healthcare
Generalized Categories of Standards

• Health Data Standards
  (Primary area of World Health Organization)
  • Data Standards, Information Content Standards,
    Information Exchange Standards, Entity/Person
    Identifiers Standards, Privacy and Security Standards

• Information Technology Standards
  (Primary area of International Telecommunications Union)
  • Telecommunication, Machine to Machine
    Communications, and other Technical Standards
    related to ICT

Standards Relevant to Health Data
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- Data Standards
- Information Content Standards
- Information Exchange Standards
- Entity/Person Identifiers Standards
- Privacy and Security Standards
- *(Functional Standards; Business Requirements)*

## Data Standards

- Disease Classification
- Drugs Classification
- Laboratory Data Standards
- Digital Images
- Medicinal Products, Pharmaceutical Doses, Units, Common Terminology Services

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*Examples only (non exhaustive list)*
Data Standards

- Clinical Procedure Terminology
- Pharmacy Terminology
- Nursing/HRH Terminology
- Payer Terminology
- Financial/Business Transactions Terminology
- Units of Measurements

Examples only
(non exhaustive list)
| Information Content Standards | • Healthcare Content  
• Public Health Card  
• Medical Device Communication |

Examples only  
(non exhaustive list)
Information Exchange Standards

- Digital Images
- Pharmacy Business Transactions
- Country-specific Mandated Transactions Terminology
- Financial/Business Transactions Terminology

Examples only
(non exhaustive list)
Entity/Person Identifier Standards

- Patient Identifier
- Provider Identifier
- Employer Identification Number
- Country Identifier
- Health (Insurance) Card Issuer Identifier

Examples only (non-exhaustive list)
Privacy and Security Standards

- Anonymization and Pseudonymization Standards
- Security Standards
- Confidentiality Standards
- Patient Consent Standards
- Data Audit Trails

Examples only
(non exhaustive list)
Standards Relevant to Information Technology
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<thead>
<tr>
<th>Information Technology Standards</th>
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<tbody>
<tr>
<td>• Standard Generalized Markup Language (SGML)</td>
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<tr>
<td>ISO 8879:1986</td>
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<tr>
<td>• HyperText Markup Language (HTML)</td>
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<tr>
<td>ISO 8859-1</td>
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<tr>
<td>• Extensible Markup Language (XML)</td>
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<tr>
<td>• Simple Object Access Protocol (SOAP)</td>
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<tr>
<td>ISO/IEC 40210:2011</td>
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</tbody>
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*Examples only (non exhaustive list)*
Areas of current focus
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• Data interoperability within and between Electronic Health Records (EHRs)

• Data interoperability between
  o Devices to Device
  o Device to EHRs
  o Diagnostics platforms and EMRs

Thank you