eHealth Standardization and Interoperability and related eHealth activities at WHO Headquarters

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Wednesday, 6 November 2013–Switzerland
Objectives

• To introduce e-health standardization and interoperability related activities of the World Health Organization

• To discuss further collaborations
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/
World Health Organization
Director-General

Clusters

Family, Women's and Children's Health (FWC)

HIV/AIDS, TB, Malaria and Neglected Tropical Diseases (HTM)

General Management Cluster

Noncommunicable Diseases and Mental Health (NMH)

Health Security and Environment (HSE)

Polio, Emergencies and Country Collaboration (PEC)

Health Systems and Innovation (HIS)
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.
Recognized the value that ICT bring to health

eHealth Milestones

WHA66.24

SIXTY-SIXTH WORLD HEALTH ASSEMBLY

27 May 2013

Agenda item 17.5

eHealth standardization and interoperability

The Sixty-sixth World Health Assembly,

Having considered the report by the Secretariat,1

Recalling resolution WHA58.28 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 AFR/RC60/P.1 on eHealth in the African Region and that the 51st Directing Council of the Pan American Health Organization adopted resolution CDS/51.4 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 offer quality health services, to support sustainable financing of health care systems, and to promote universal access;

Recognizing that the lack of a wireless exchange of data within and between health information systems limits 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 system 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 centres have access to high-quality digital images; researchers can carry out clinical trials and evaluate data with greater speed and accuracy; public health authorities have access to electronic reports 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 A66/69.

2 See document CDS/51.4.

Recognized the value of adoption of standards for interoperability and Health on the Internet

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
Indicator-based Records

Individual/Patient Records

Lack of Reliable & Timely Data Exchange

Registries

Diagnostics/Images Records
Standards Relevant to Health Data

- Data Standards
- Information Content Standards
- Information Exchange Standards
- Entity/Person Identifiers Standards
- Privacy and Security Standards
- \textit{(Functional Standards; Business Requirements)}

## Data Standards

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

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)
<table>
<thead>
<tr>
<th>Information Content Standards</th>
<th>Examples only (non exhaustive list)</th>
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<tbody>
<tr>
<td>• Healthcare Content</td>
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<td>• Public Health Card</td>
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<td>• Medical Device Communication</td>
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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
Information Technology Standards

- Standard Generalized Markup Language (SGML)
  ISO 8879:1986
- HyperText Markup Language (HTML)
  ISO 8859-1
- Extensible Markup Language (XML)
- Simple Object Access Protocol (SOAP)
  ISO/IEC 40210:2011

Examples only (non exhaustive list)
Areas of current focus
Areas of current focus

• 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