Standards Development for Hong Kong eHR

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Discussion

- Introduction
- Standards for eHR
- Implementation of eHR standards

Value of Standardisation

- Ensure accurate interpretation of health data by all parties
- Support reuse of data
- Facilitate interoperability of systems for data captured at different platforms
- Avoid duplicated efforts in data entry through data sharing
- Improve efficiency of healthcare services
  - Avoid duplicated investigations
- Assist in protection of public health

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Benefits

- Better quality of healthcare
- Improved outcomes
- Reduced errors
- Improved efficiency
- Reduced costs

Benefits

- Better quality of healthcare
- Improved patient care
- Reduced errors
- Improved efficiency
- Reduced costs

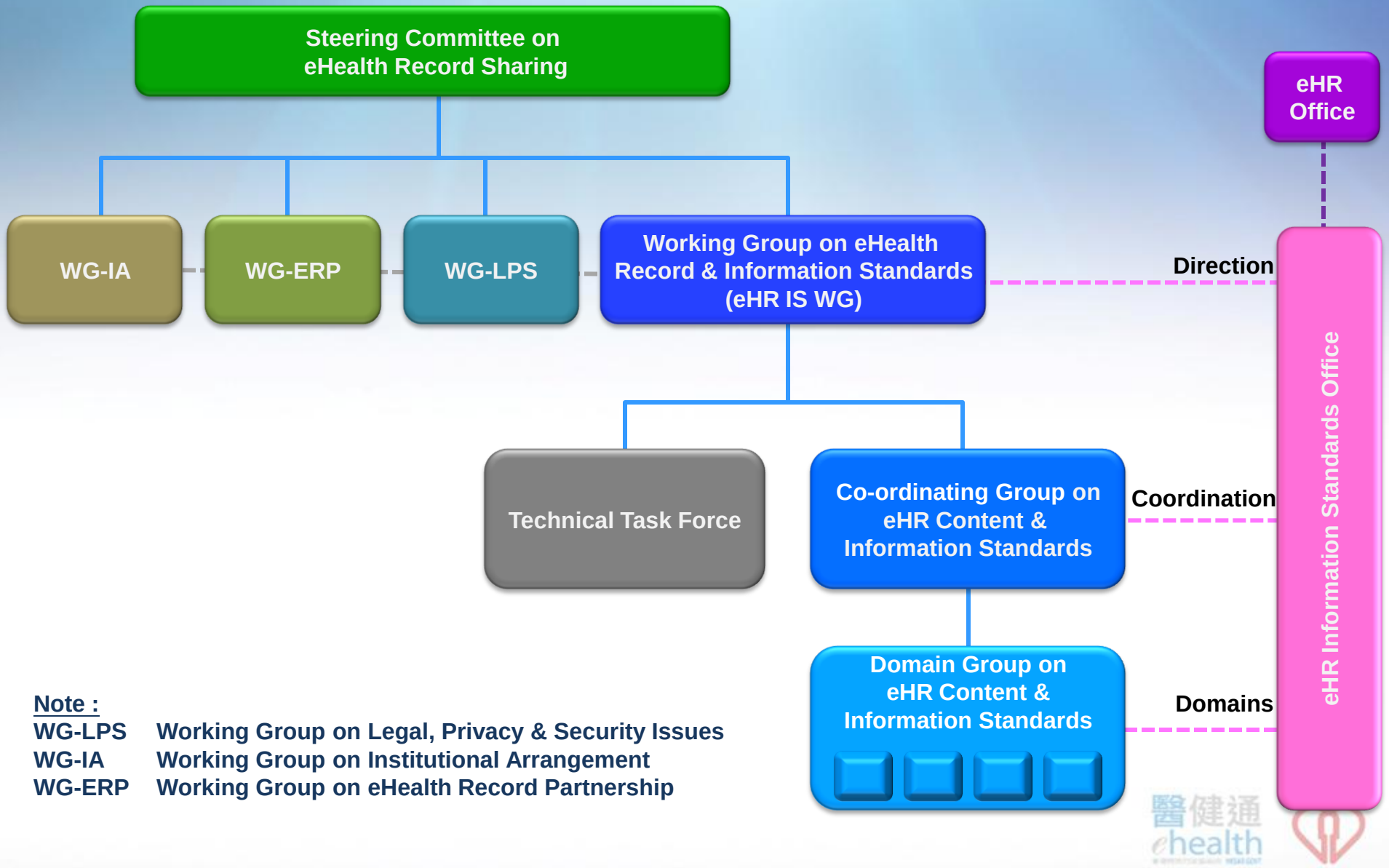
In USA, a nationwide standardized electronic health records infrastructure would save US$77billion annually

Harvard Medical School, 19 Jan 2005

In Australia, implementation of fully standardized interoperable health information exchange transactions would have total net saving at over $2 billion annually or 4.1% of the expenditure by Australian Governments on healthcare

Sprivulis, P., Walker, J., Johnston, D., Pan, E., Adler-Milstein, J., Middleton, B., Bates, D.W., 2005,

Organisation Structure for eHR Information Standards



Note :

WG-LPS	Working Group on Legal, Privacy & Security Issues
WG-IA	Working Group on Institutional Arrangement
WG-ERP	Working Group on eHealth Record Partnership

Standards Management

- Reference to/adopt available international/ local standards to increase acceptability
  - Contribute to development of international standards
- Multiple implementation paths to encourage participation
- Outcome comes first for smooth implementation
  - Onramp, Adaptation, eHR viewer
- Transparent process to facilitate adoption
  - Engagement, training, publication, discussion forum
- Ongoing maintenance to keep abreast of medical science and technology evolvement

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Standards for eHR

- Identification
  - HKID
  - Professional list from registration boards / councils
  - Address data infrastructure
  - ISO 10646
- eHR content
  - ASTM
  - Hospital Authority
- Terminology
  - ICD 10, ICPC2, SNOMED CT, LOINC
  - Compendium of Pharmaceutical Products
  - Hospital Authority Clinical Vocabulary Table
- Messaging
  - HL7

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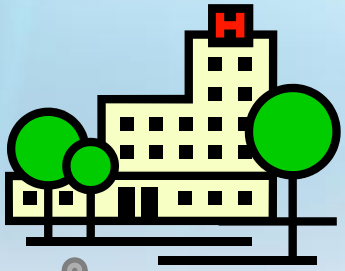
Recognised Terminologies for eHR

	Problems	Procedure	Laboratory	Drug	Vaccine
HKCTT	Y	Y	Y	Y	Y
SNOMED CT	Y	Y	Y	Y	Y
ICPC 2	Y				
ICD 10	Y				
LOINC			Y		
CPP				Y	Y

Adenocarcinoma



Automated paper

1

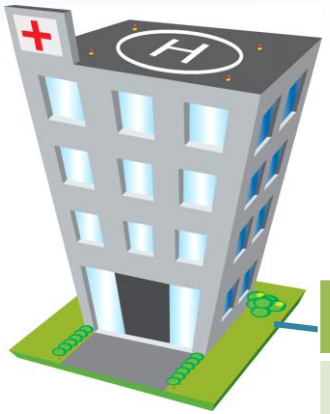
Histology : Adenocarcinoma

PDF

3

Histology	
13983	Adenocarcinoma

Fully Interoperable eHR



2

Histology
AdenoCa

Data Integration

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eHR Content Standards Guidebook

HKCTT (Diagnosis)	
13983	Adenocarcinoma
13985	Basal cell carcinoma
13987	Carcinoma

Lab Test in eHR

Date	Provider	Description	Result	Unit	Code	System
5 May 2001	Hospital C	Glucose, Random	6.0	mmol/L	14749-6	LOINC
6 Jun 2006	Dr Wong	Random Glucose	8.6	mmol/L	67483	HKCTT
6 Jun 2005	Dr Wong	Total Cholesterol	6.4	mmol/L	14647-2	LOINC
9 Sep 2002	Dr Ho	Spot Glucose	126	mg/dL	GLU	Ho's List

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Hong Kong Clinical Terminology Table

SNOMED CT

Diagnosis

Procedure

HKCTT

Drug

Laboratory

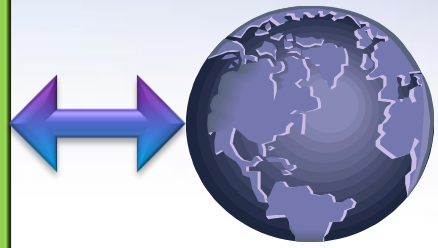
Others

ICPC2

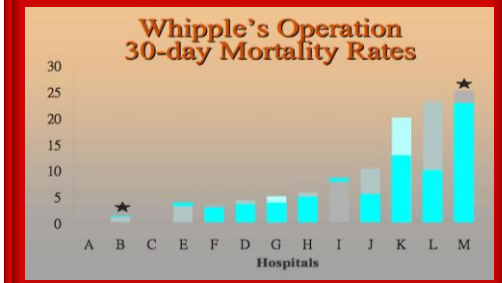
ICD 10

Drug Compendium

LOINC®



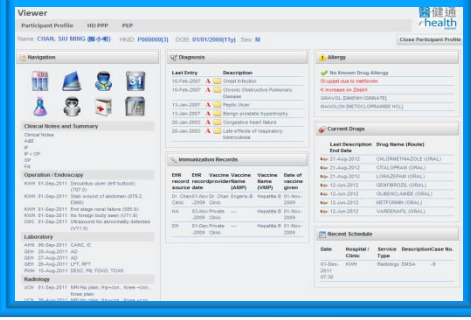
Secondary Use



Clinical Data Repository

eHR

eHR



Phased Approach Implementation

eHR Content	Level 1	Level 2	Level 3
Person			
Healthcare practitioner			
Encounters			
Referral			
Episode summary			
Adverse reactions / allergies			
Problems			
Procedures			
Assessment / physical exam			
Social history			
Past medical history			
Family history			
Medication			
Immunization			
Clinical requests			
Diagnostic test results			
Care & treatment plan			

Key : Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5

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eHR Information Standards

http://www.ehealth.gov.hk/en/information_standards/information_standards_documents.html

Thank You

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