

Hong Kong Clinical Terminology Table

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15 February 2011

Agenda

- Standards for eHR
- Introduction to terminology
- Hong Kong Clinical Terminology Table
- Standards Adoption

Guiding Principles for eHR Development

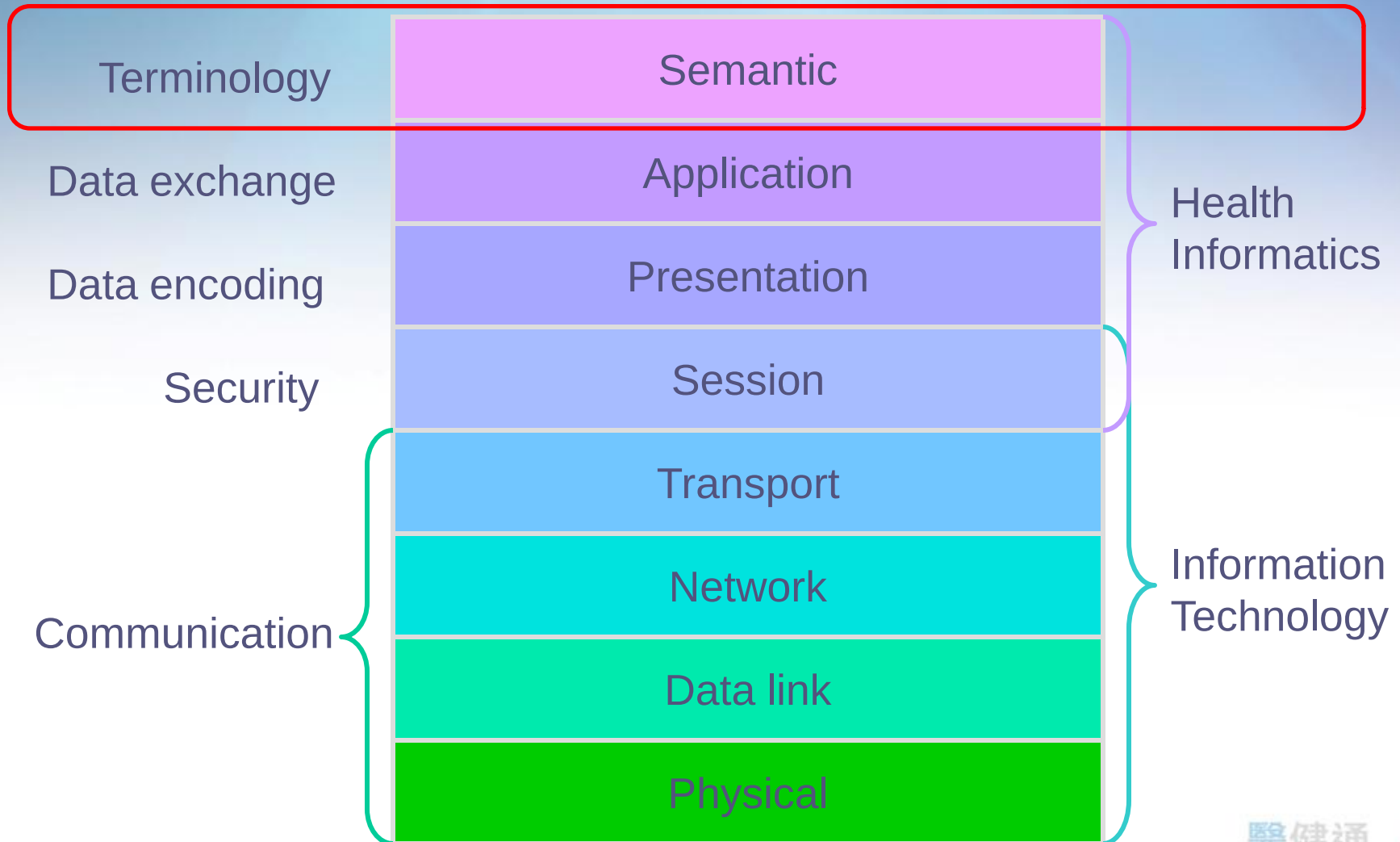
- Government-led model for development
- Compelling but not compulsory record sharing
- Privacy and security of paramount importance
- Open technical standards for private participation
- Building block approach

Maintain interoperability –
'ability of two or more systems or components to
exchange information and to use the information'

Source: IEEE Standard Computer Dictionary: A Compilation of IEEE Standard Computer Glossaries
IEEE, 1990



Interoperability Layer



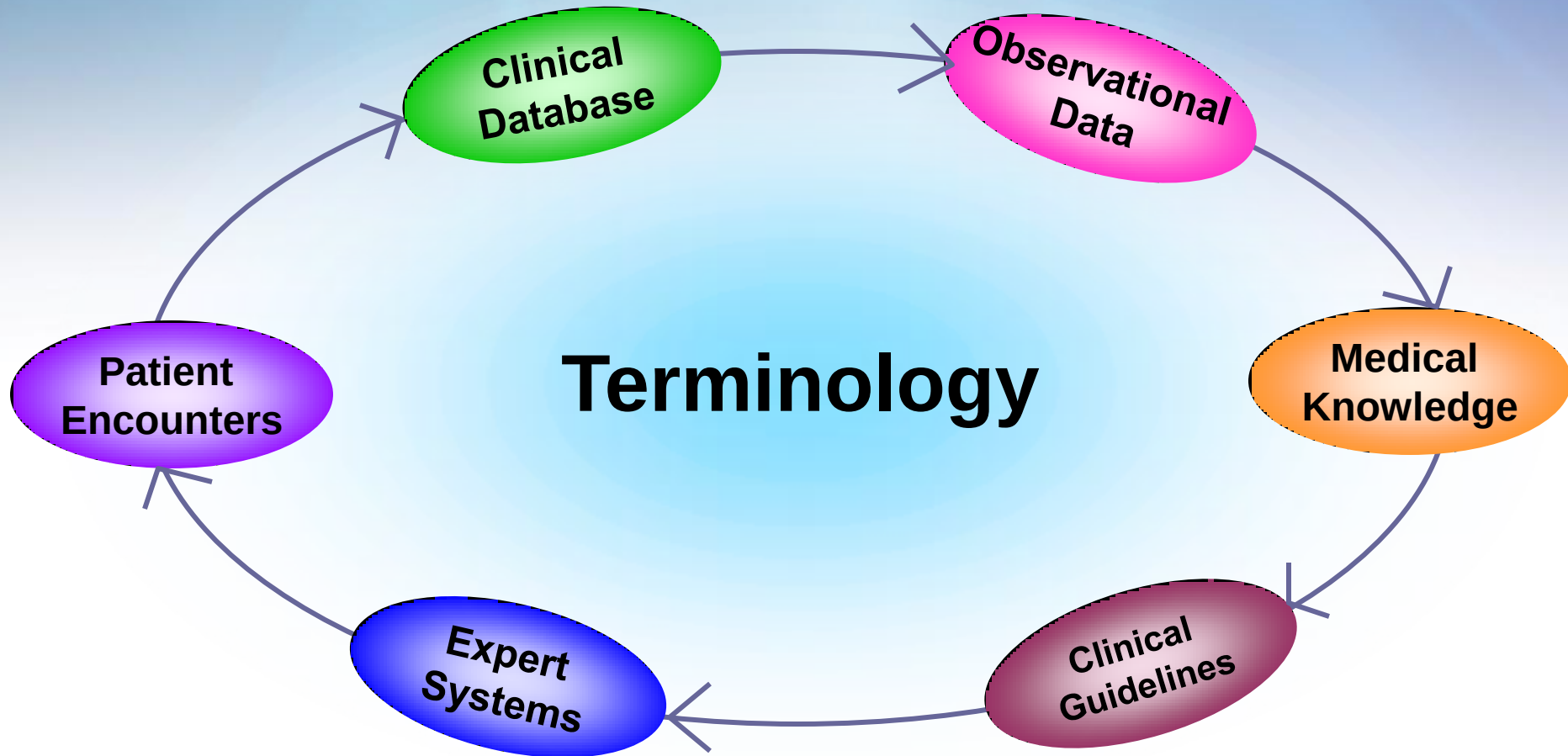
Clinical Documentation

20/8/95	<i>General Note</i> - Off ventricles & embolized - Hypertensive RR 130/min - eyes protruded - Scleral wound less discharge but still erythematous - Diuretics x 5-6 times - still on antibiotic Plan: Send stool x. Clostridia <i>Diuretics per se</i>
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blood tests: Hep B +ve PT 12.7 platelet 61 AFP 5 albumin 37, ALT 46, bilirubin 32 normal FBS and lipid echocardiogram (Mar 04): normal LV, MV mildly thickened with mild MS and MR, AV mildly thickened with mild AR, increase LA size no major symptom seldom drinks no bleeding tendency no fluid overload 149/87, P:73 PE: multiple lipomas over the body and limbs obese abdomen, difficult to palpable, no ascites, spleen not palpable no bleeding tendency no fluid overload 149/87, P:73 PE: multiple lipomas over the body and limbs obese abdomen, difficult to palpable, no ascites, spleen not palpable Hep B related cirrhosis ?Madelung's disease Plan of Management: note BP next time refer liver clinic check LFT, AFP, CBP, HBeAg before FU	
Created By	CHENG TERENCE
Updated By	CHENG TERENCE
Updated Date	14/4/2004 9:57:23

Heritage of Continuous Improvement

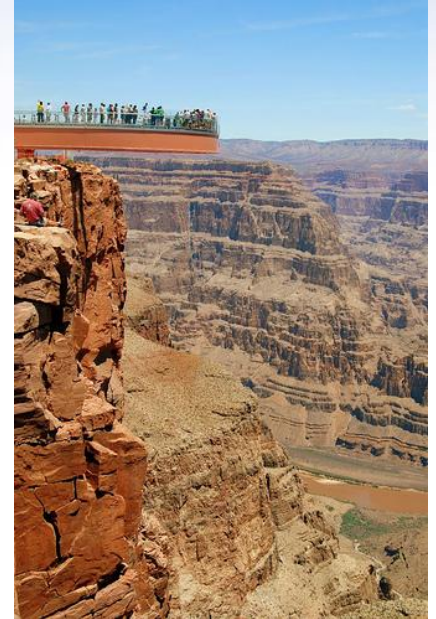
Central Role of Terminology



CG Chute 2000

Salmonella enterica subsp. Arizonae

- Arizona
- Salmonella arizonae
- Arizona hinshawii
- Salmonella IIIa
- Salmonella ente
- Salmonella, sub
- Salmonella, sub



Practical Concerns

- Numerous standards
- No single terminology covers all domains in breadth & depth
- Local requirements
- Data retrieval
 - Multiple dimension
- Updating



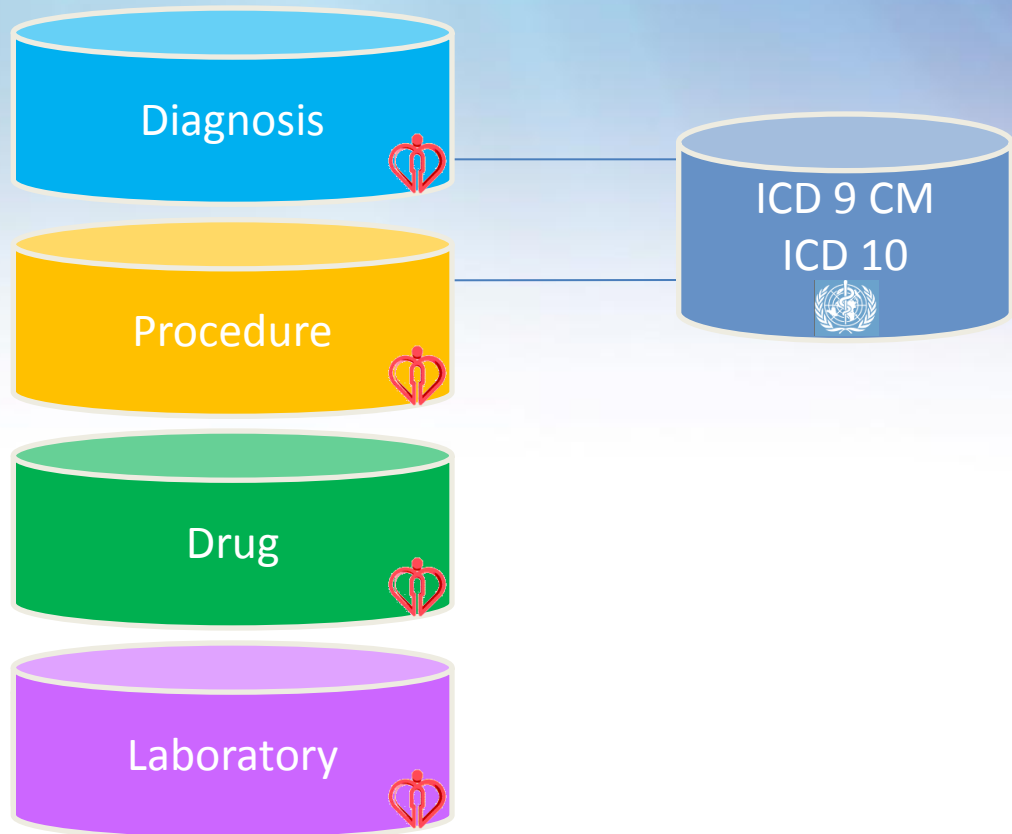
Development of HKCTT

- Terminology principles
- Information as a byproduct of clinical documentation
 - Reference to international standards
 - Essential domain areas

Term ID 3165	IN USE
Nature	Diagnosis (Dx)
Full Description	Adult T-cell leukaemia lymphoma
Stage In Use	CMS Ref. No.
System Used	CDF
Status	Active
Remarks	
Alias	- Adult T-cell leukaemia-lymphoma HTLV-1-associated (Source HACVT) - ATLL (Source HACVT)
ICD9Dx	204.10 - 10004
ICD10Dx	C91.5
SNOMED CT	

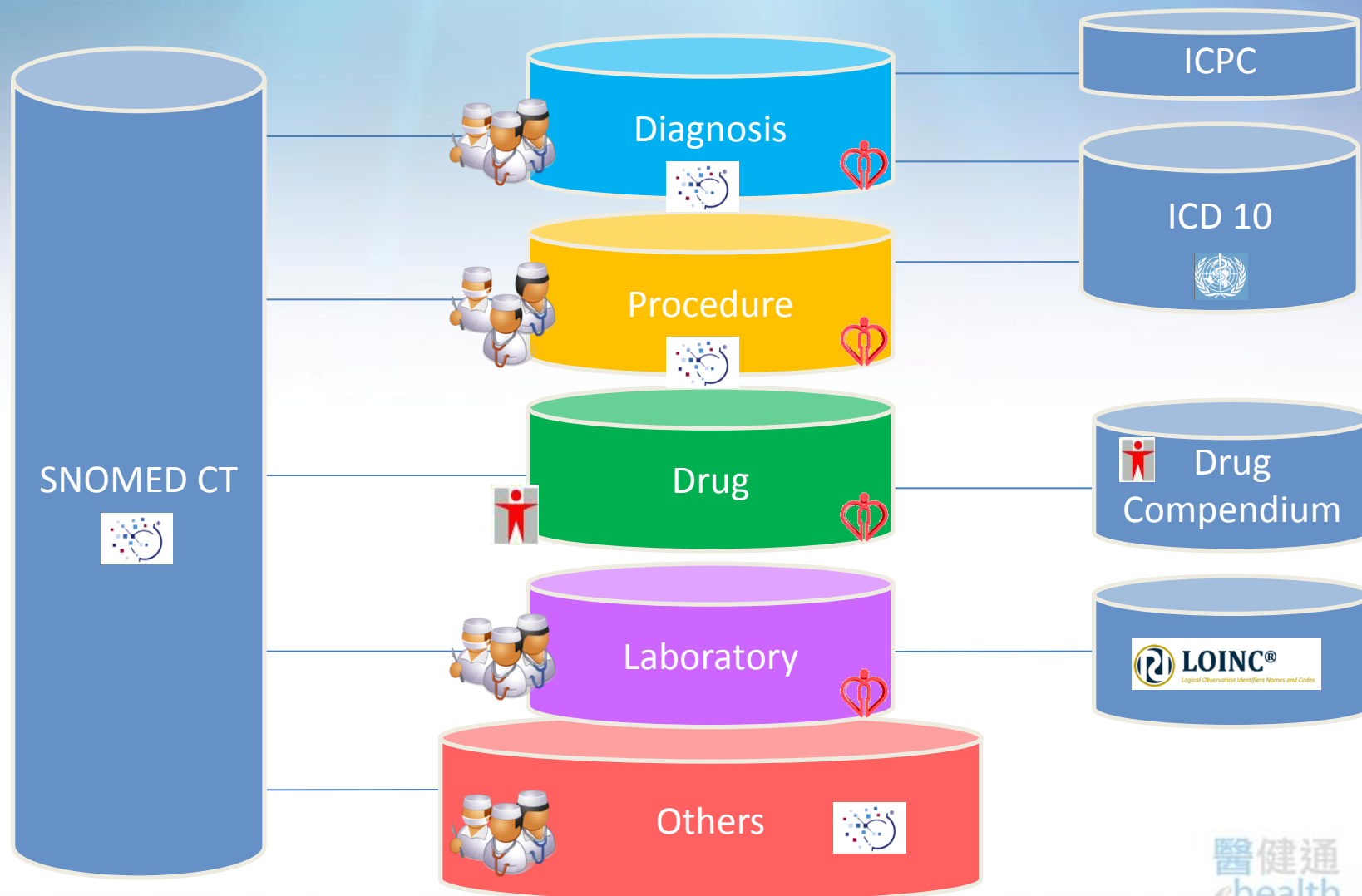
Validation R
Age N/A

Terminologies in HA

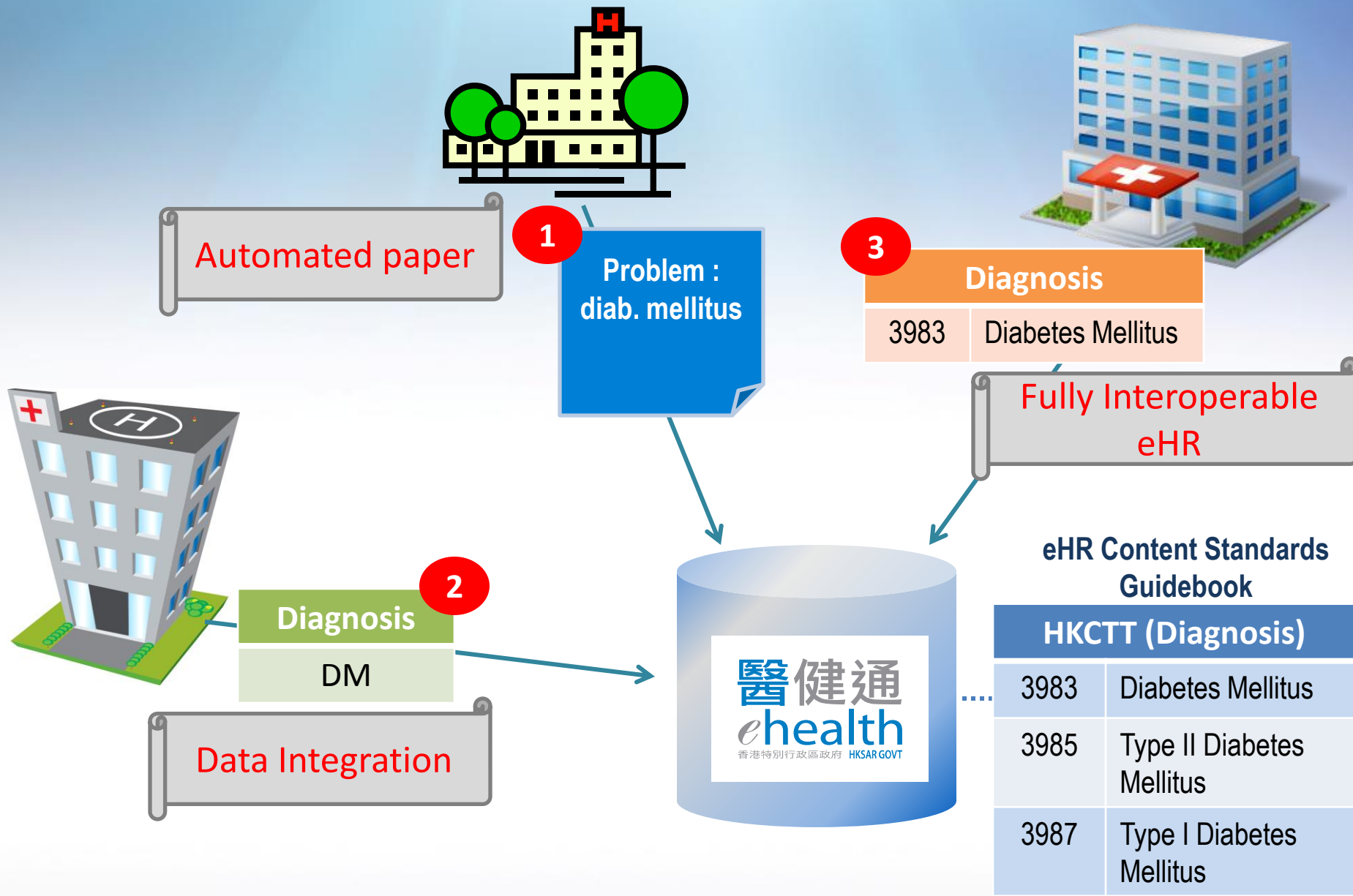


Building the HKCTT

2012



Diabetes Mellitus



Recognised Terminologies

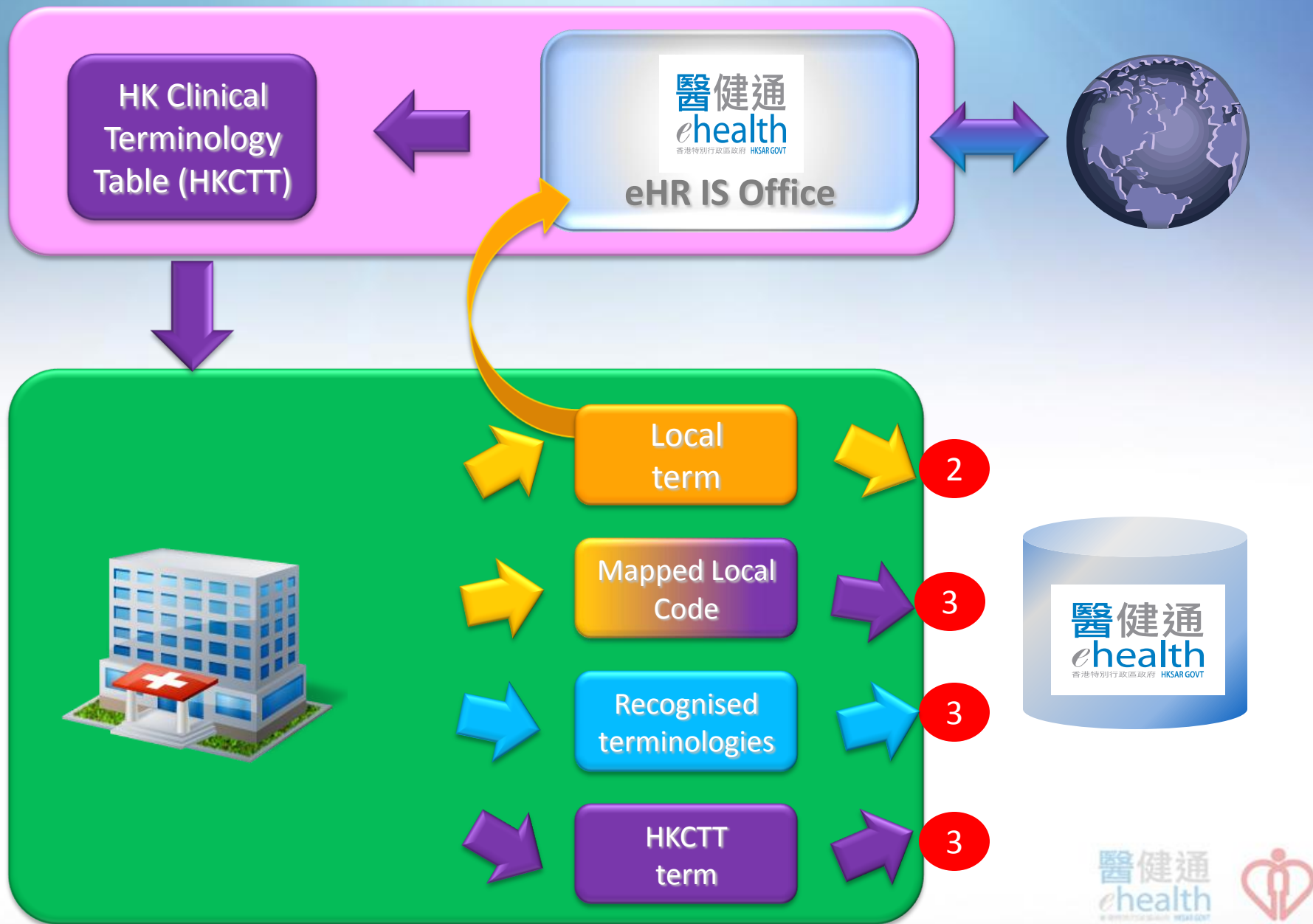
- Compendium of Registered Pharmaceutical Products (HK Drug Compendium)
- Hong Kong Clinical Terminology Table (HKCTT)
- International Classification of Diseases, 10th Revision (ICD 10)
- International Classification for Primary Care (ICPC)
- Logical Observations, Identifiers Names and Codes (LOINC)
- Systematized Nomenclature of Medicine, Clinical Terms (SNOMED CT)



Type 1 Diabetes Mellitus in eHR

Date	Provider	Description	Code	System
3 Jan 2004	Hospital A	Insulin-dependent diabetes mellitus without complications	E10.9	ICD10
4 Feb 2001	Dr Chan	Diabetes mellitus type 1	46635009	SCT
3 Mar 1999	Hospital B	Type 1 diabetes mellitus	3987	HKCTT
5 May 2003	Hospital C	Pneumonia	8471	HKCTT
6 Dec 2002	Dr Wong	Pneumonia, unspecified	J18.8	ICD 10
9 Sep 2002	Dr Ho	Insulin-dependent diabetes mellitus	DM1	Ho's List

Adoption of Health Information Standard



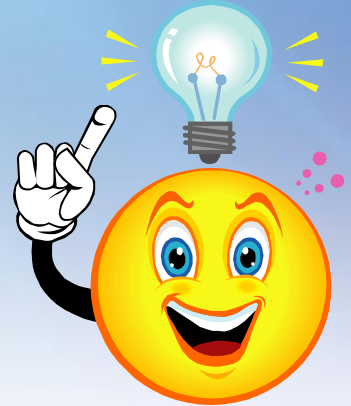
Management of HKCTT

- Governance
 - eHR IS CG, eHR IS DGs, HKCTT EG
- Development
 - Terminology management principles & editorial rules
 - Special handle : nonspecific / vague terms
- Maintenance
 - Information Architecture Management System
 - Quality management
 - Feedback mechanism
 - Regular update
 - Distribution



Preparation for eHR

- Participate
 - eHR Engagement Initiative
 - Domain Groups
 - Training programs
 - Feedback on released standards
- Watch out for release/update of standard documents
- Identify a champion as liaison
- Upgrade system
 - To incorporate eHR standards
 - eHR Data Field / Content value (identifier, description, data type...)
 - HKCTT



Tips for Terminology Management

- Meaningless identifier to allow expansion
- Unique meaning
- To facilitate searching
 - Synonyms
 - Common list (subset)
- Mapping
 - Must be validated
 - Avoid mapping as far as possible
 - ICD rules
- Keep updating

Cimino's Desiderata

- Content
- Concept oriented
- Concept permanence
- Nonsemantic concept identifier
- Polyhierarchy
- Formal definitions
- Reject "not elsewhere classified"
- Multiple granularities
- Multiple consistent views
- Representing context
- Graceful evolution
- Recognize redundancy

Thank You