

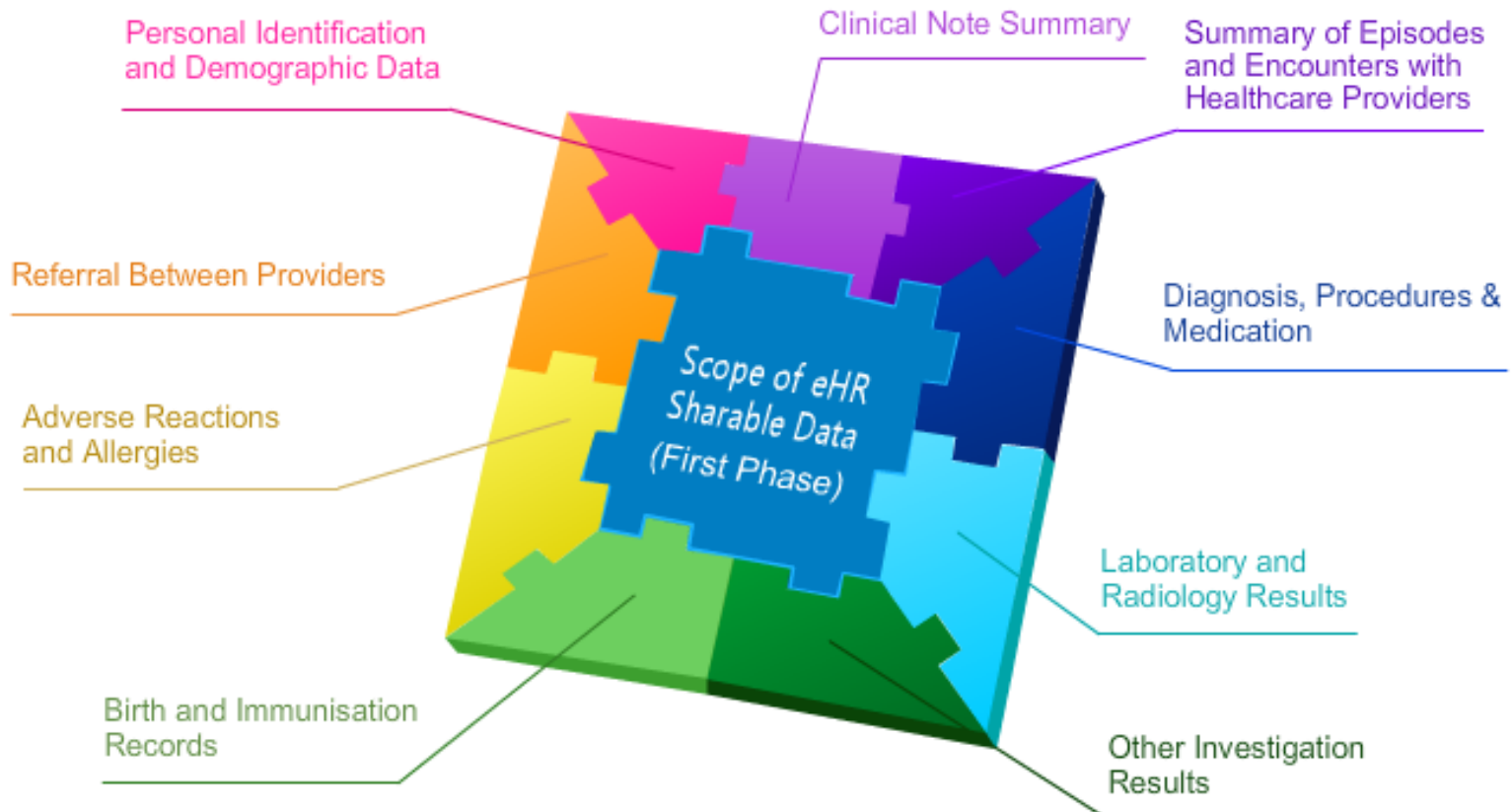
Overview of eHealth Data Standardisation and Hong Kong Clinical Terminology Table (HKCTT)

13 Nov 2023

Outline

- Why data standardization in eHealth
- eHealth data standards
- Recognised terminologies and HKCTT
- Hong Kong Clinical Terminology Table
- Management of HKCTT and Information Architecture Management System (IAMS)

eHealth Sharable Scope



eHR Viewer – e.g. Lab Results

醫健通 ehealth HKIC No. : Q000999(3) Wong, Tai Man DOB : 14-Feb-1976 Age : 39 years Sex : M UPPPNURSE011 UPPPNURSE011 (Logout)

Laboratory Record

Date View Document View Laboratory: All Period: All Default View

Date	Profile Description	Institution
02-Apr-2013	CA,GGT,LFT,RFT	QEH
02-Apr-2013	CBP/DC	QEH
02-Apr-2013	CEA	QEH

Laboratory Cumulative Result(s)

Last 1 year

Institution	PWH	ABC Hospital	ABC Hospital	XYZ Clinic	XYZ Clinic	QEH
Date	24-Dec-2012 14:31	15-Dec-2012 01:51	21-Aug-2012 14:31	20-Aug-2012 00:00	21-Aug-2011 00:00	21-Aug-2010 00:00
PDF Report						
Anisocytosis, Blood, Microscopy	123					
Haemoglobin, Blood	15.1	16.1	15.9	15.8	15.8	15.4
Haemoglobin A, Blood, Electrophoresis		90	90		90	90
Haemoglobin F/Haemoglobin, Blood, Kleihauer-Betke method		200				
Haemoglobin A2/Haemoglobin, Blood		500 ↑				
Haemoglobin Barts/Haemoglobin, Blood		215				

Data Standardisation

1. Allow meaningful display of eHR data and showing trends across data from different healthcare providers.
2. Easy to understand by healthcare professionals, no eHR training is required.
3. Allow analysis of data across different HCPs.
4. Have to be supported by structured / standardised data.

Laboratory Cumulative Result(s)						
Last 1 year <input type="button" value="v"/>						
Institution	PWH	ABC Hos	ABC Hospital	XYZ Clinic	XYZ Clinic	QEH
Date	24-Dec-2012 14:31	15-Dec-2 01:51	21-Aug-2012 14:31	20-Aug-2012 00:00	21-Aug-2011 00:00	21-Aug-2010 00:00
PDF Report						
Anisocytosis, Blood, Microscopy	123					
Haemoglobin, Blood	15.1	16.1	15.9	15.8	15.8	15.4
Haemoglobin A, Blood, Electrophoresis		90	90		90	90
Haemoglobin F/Haemoglobin, Blood Kleihauer		200				
Haemogl		500 ↑				
Haemogl Blood		215				



ABC Hospital

Haemoglobin
16.1



HA

HGB
15.1



XYZ Clinic

Hb
15.8

eHealth Terminology standards

3 Levels of standards for data sharing by HCPs:

- Level 1 : PDF only (with standardised document types)
- Level 2 : Structured data with HCP's own codings/terminologies
- Level 3 : Structured data standardised with Recognised Terminologies

Recognised Terminology

- The terminologies accepted for data sharing in eHR
- Include HK Clinical Terminology Table (HKCTT) and various reference terminologies
- Each HKCTT term can be mapped to multiple Reference terminologies

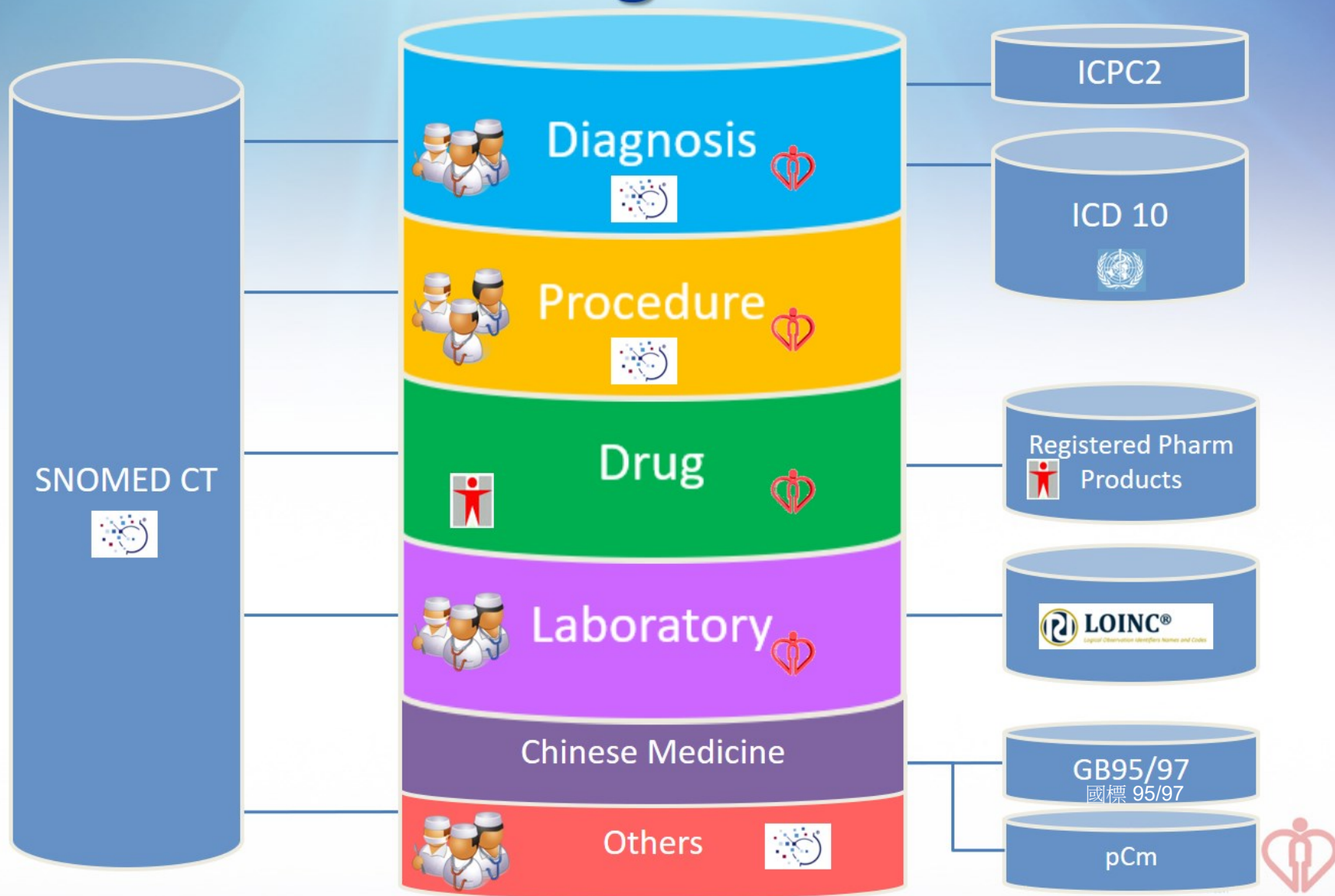
Reference Terminologies / Standardised Codings in eHealth

- International standards, e.g. International Classification of Disease
- Hong Kong standards, e.g. Registered Pharmaceutical Products
- eHealth's own Codex, e.g. gender (M/F/U)

eHealth Terminology Standardisation

- Hong Kong Clinical Terminology Table (HKCTT)
 - Developed from Hospital Authority Clinical Vocabulary Table (HACVT)
 - Concept based, with unique TermID
 - Multiple natures
 - Diagnosis / Procedure
 - Organism
 - Laboratory antibiotics and more
 - With mapping to various reference terminologies
 - Including ICD10, ICPC2, LOINC, SNOMED CT

Building HKCTT



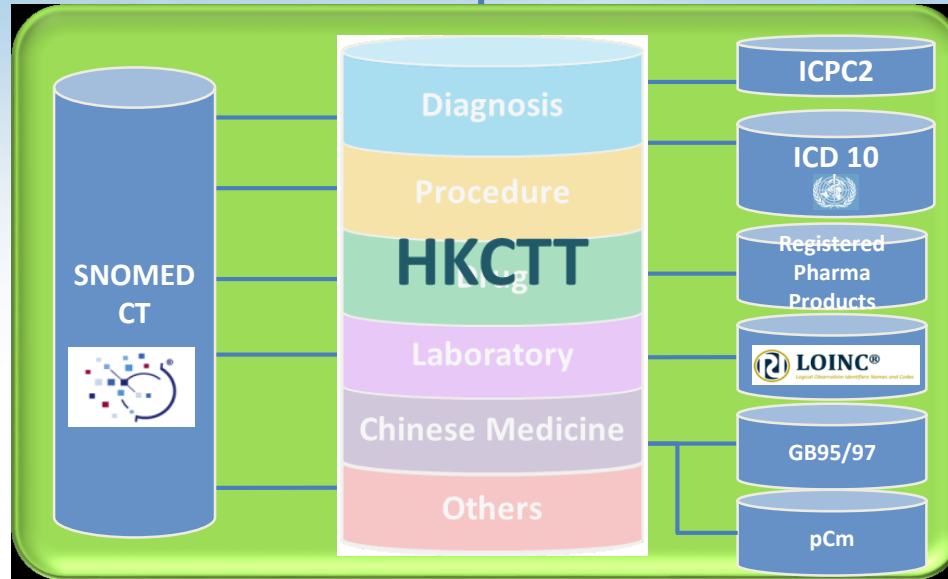
Reference terminologies in HKCTT

	HKCTT Nature					
	Diagnosis	Procedure	Organism	Specimen	Laboratory Test	Drug
HKCTT	Yes	Yes	Yes	Yes		Yes
RPP						Yes *
ICD-10~	Yes *					
ICPC-2	Yes	Yes				
LOINC #					Yes *	
SNOMED CT #	Yes *	Yes *	Yes *	Yes *	Yes	Yes

* Mandatory mapping

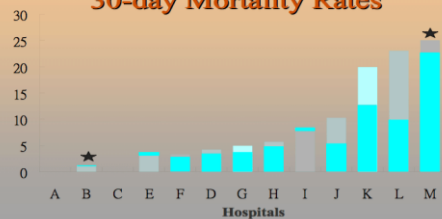
HK extensions created

HKCTT



Secondary Use

Whipple's Operation
30-day Mortality Rates



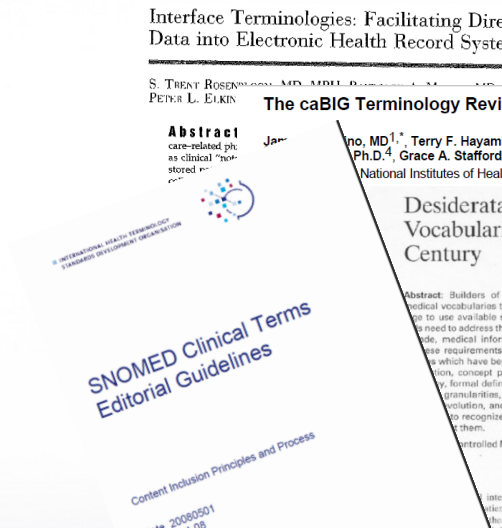
HA Clinical
Data
Repository

eHR



Management of HKCTT

- Governance
 - eHR Information Standards Co-ordinating Group, eHR IS Domain Groups, HKCTT Editorial Group
- Development
 - Terminology management principles & editorial rules
- Maintenance
 - Information Architecture Management System
 - Quality management
 - Feedback mechanism
 - Regular update
 - Distribution



Information Architecture Management System (IAMS)

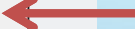
- Originated from the Hospital Authority (HA)
- Terminology management tool
 - Browsing and maintenance of HKCTT
 - Browsing of various Reference Terminologies
- Contain other information architecture modules

Quick Links

Clinical

- eHR Viewer
- Cataract Surgeries Programme
- Haemodialysis Public-Private Partnership Programme

- eHR Recognised Terminologies Search
- HKCTT Request Submission
- Information Architecture Management System



Entity Concept Form IAMS_USER, IAMS_USER

Search

Admin

Concept Search Criteria

HACVT Reference Term Search

Entity Concept Form

IAMS_USER, IAMS_USER

Search Result

Search Result Ref Term Search Result

Search Download HACVT Full List Detail Update Stages Add to Short List

<input type="checkbox"/>	Stage	HA Sta...	Nature	Term ID	Concept Description	SNOMED CT	HK SCT	ICD9Dx	ICD9Dx A...	ICD10-2001	ICD10-2001...	ICD10-201...	ICD10-2010...	ICD10-2010...
<input checked="" type="checkbox"/>	In Use	Inactive	Diagnosis (...	6										
<input type="checkbox"/>	In Use	Active	Diagnosis (...	7										
<input type="checkbox"/>	In Use	Active	Diagnosis (...	8										
<input type="checkbox"/>	In Use	Active	Diagnosis (...	9										

☐ IASP

☒ Keyword

☒ Code / ID

☒ Stage

☒ HA Status

☒ System Used

☒ Category

☐ Other Criteria

☐ Contains

☐ Main Code

☐ In Progress

☐ Reject

☐ Active

☐ PsyCIS

Entity Concept Form

IAMS_USER, IAMS_USER

Search Result

Concept Short List

Concept Short List Ref. Term Short List

Remove Download Update Stages

☒ Term ID Description

6

Edit Copy

Concept Detail

Term ID	6	IN USE	Nature	Diagnosis (Dx)	Stage	In Use	Version	1
Full Description	Typhoid and paratyphoid fevers							
Short Description	TYPHOID/PARATYPHOID FEV							
eHR Description	Typhoid and paratyphoid fevers							
Alias								
Validation Rule	Principal	Yes	Sex	N/A	Age			
Remarks								
Definition								
ICD9Dx	002 - 0							
ICD10-2001	A01							
ICD10-2010+MBD								
ICPC2								
SNOMED CT								
IASP	IASP Type							

HA Properties

Status	Inactive	Inactive Reason	
CMS Ref. No.		CDF	System Used

eHR Properties

Status	Inactive	Inactive Reason	Never used
--------	----------	-----------------	------------

Requested by at HO Created by HACVT on 01/01/2003 Updated by HACVT on 01/01/2003

Thank You