

The Integrated Services Framework (ISF)

Information Architecture Workshop

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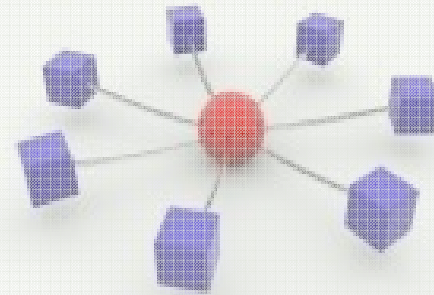
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Opening Thought

“The world can be seen as only connections, nothing else... A piece of information is really only defined by what it’s related to, and how it’s related. There really is little else to meaning

The structure is everything.”

— Tim Berners-Lee
Weaving the Web



The Integrated Services Framework (ISF)

A 'standards based' single framework for the public health system

- A Technical Architecture
- An Applications Architecture
- An Information Model and Architecture
- An Communications / Network Architecture

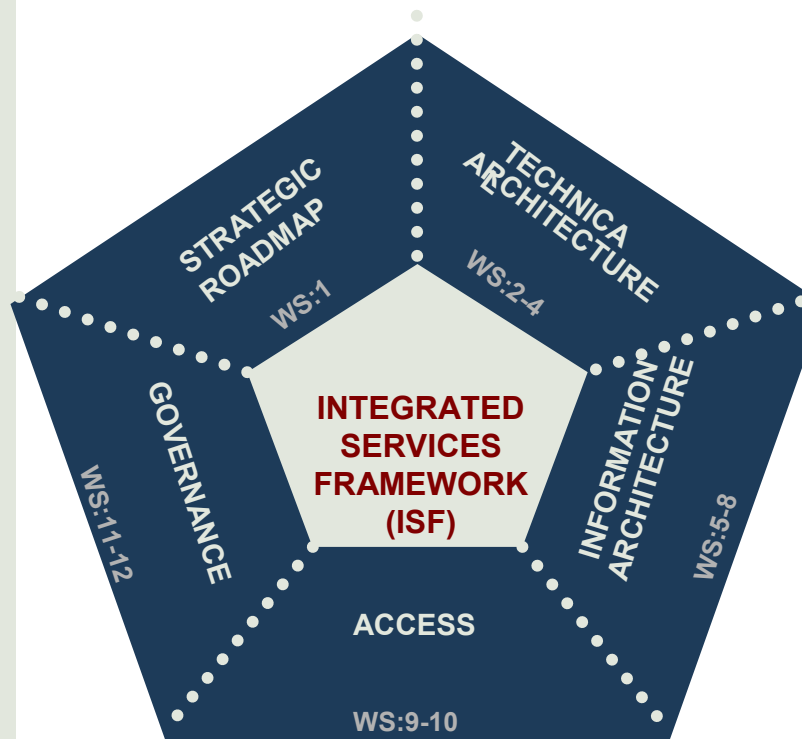
Secondary Deliverable

Foundation for the Electronic Health Record (EHR) and a National Patient/Client Portal

A Single Information Systems Framework to provide for integration and sharing of data and information

- Deliver the ICT Strategy work streams
- Strategic National Business Initiatives
- Develop, implement & support
- local & regional initiatives
- Develop the EHR Information Framework
- Develop & improve ICT Infrastructure

The Integrated Services Framework (ISF)



Vision

Work-stream-1: The Framework Model.....5

Technical Infrastructure

Work-stream-2: Technical Infrastructure Work Stream.....7
(ICT Platforms, Technologies & Asset Base)

Work-stream-3: Applications Reference Base.....10
(Applications Portfolio, Standards & Toolsets)

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Information Architecture

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Access

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Governance

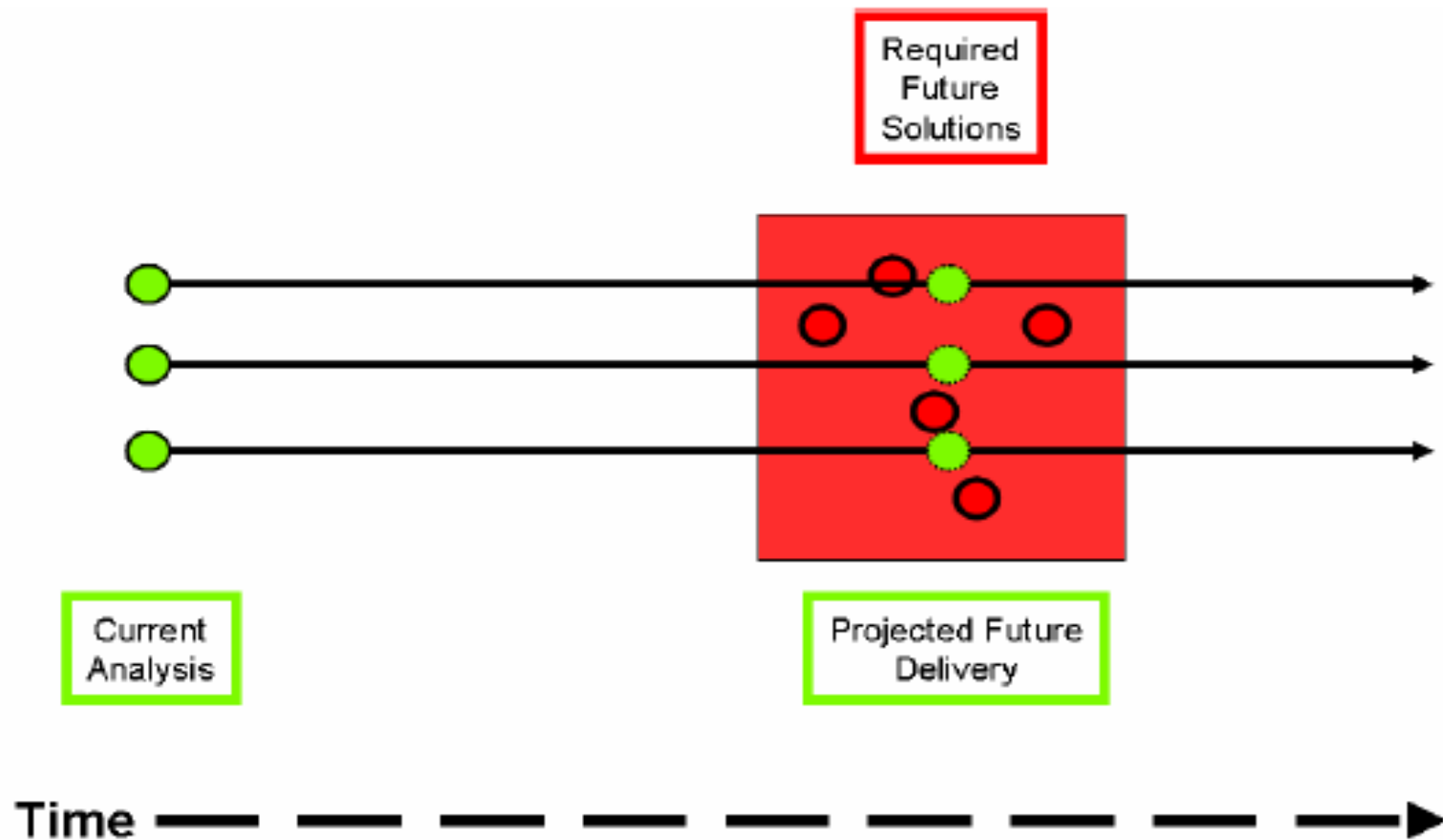
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Blueprint of the Integrated Services Framework.....34

Where is our Information?



Tender Deliverables

1. Determination of the Information Model
2. Specification for the Data Dictionary
3. Terminology Assurance
4. Support Processes & Services



Part-1 Determination of the Information Architecture Reference Model

- ↪ The establishment of a suitable standards based Information Architecture Reference Model (IA-RM)
- ↪ The provision of a standards based subject area model (SAM)
- ↪ The determination of which technical systems should participate in the subject area model (SAM)
- ↪ Recommendation of a Governance Framework and Tooling for Model maintenance and expansion
- ↪ A catalogue with the Standards and associated sub-sections for the Model



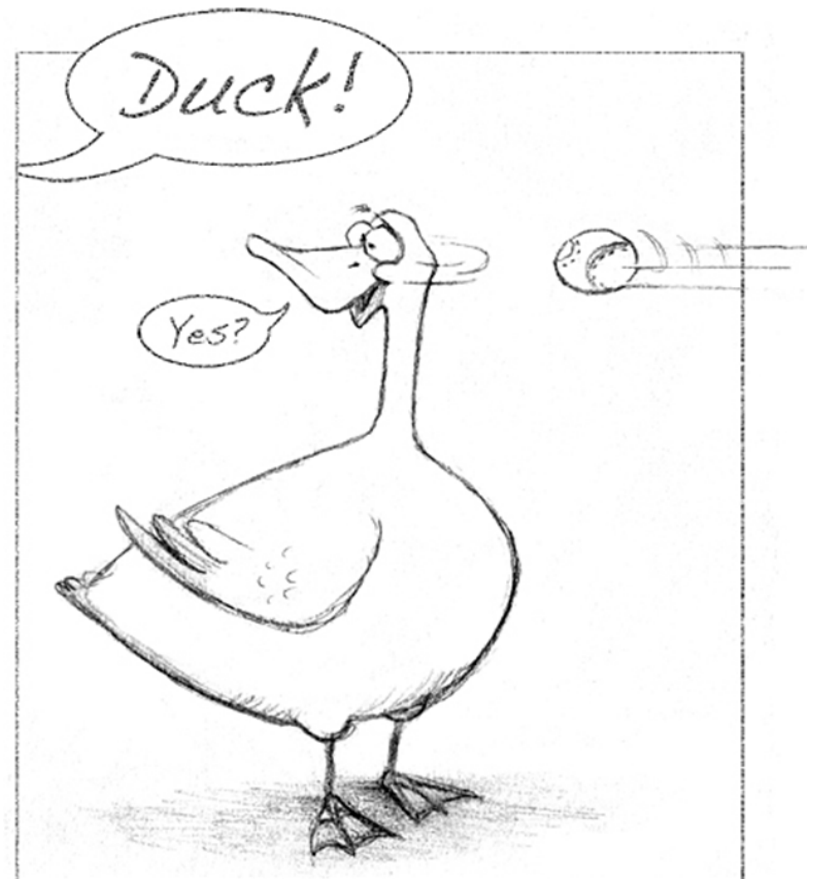
Part-2 Data Dictionary

- The determination of a Standards Based Data Dictionary including the specification of meta data structure, data classes, entities and attributes
- Validation (Proof-of-Concept) of the Data Dictionary
- Recommendation of a Governance Framework and Tooling for Dictionary maintenance and expansion
- A catalogue with the Standards and associated sub-sections for the Dictionary



Part-3 Terminology Assurance

- ▮ The determination and validation (Proof-of-Concept) of a terminology (SNOMED CT) for the IA-RM Model
- ▮
- ▮ Provision of a blueprint for the deployment, management and maintenance of the terminology service
- ▮ Validation of the proposed model through the binding of SNOMED CT concepts to a specified clinical data set
- ▮ A catalogue with the Standards and linkages associated with its operation and maintenance

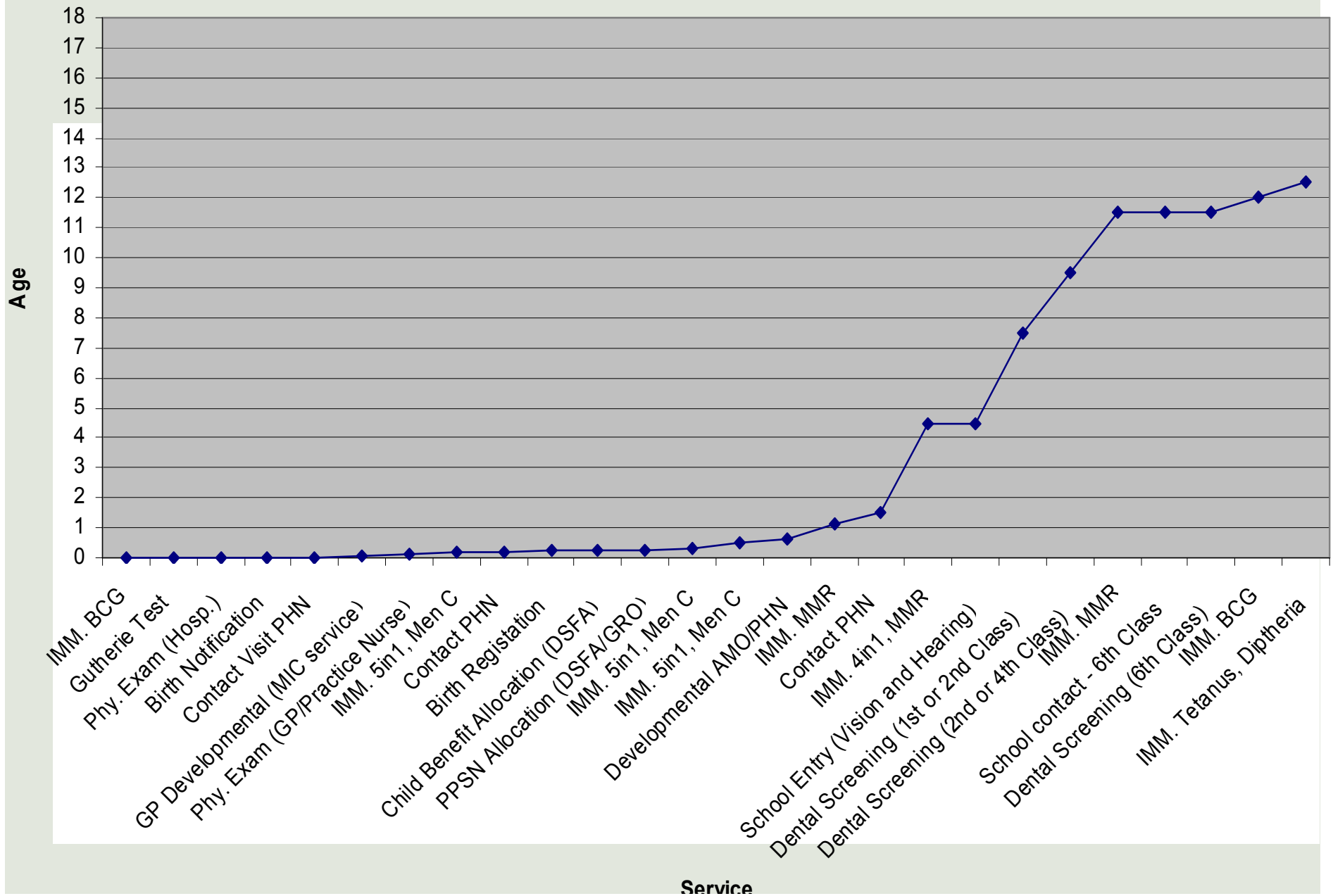


Part-4 Support Processes & Services

- ↪ What standards based toolsets are required to manage the collective practical outputs and relationships of the information components listed above
- ↪ A brief comparison of the commercial and open source products that best meet this need
- ↪ The recommendation of an established toolset and management approach to facilitate integrated
- ↪ governance of the data model, data dictionary and terminology service.



Services Available/ Accessed By All Children

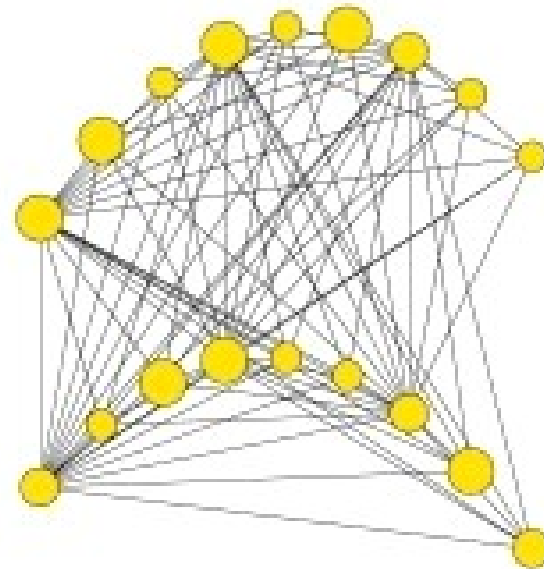


Example Case - Child Health System Information Challenge

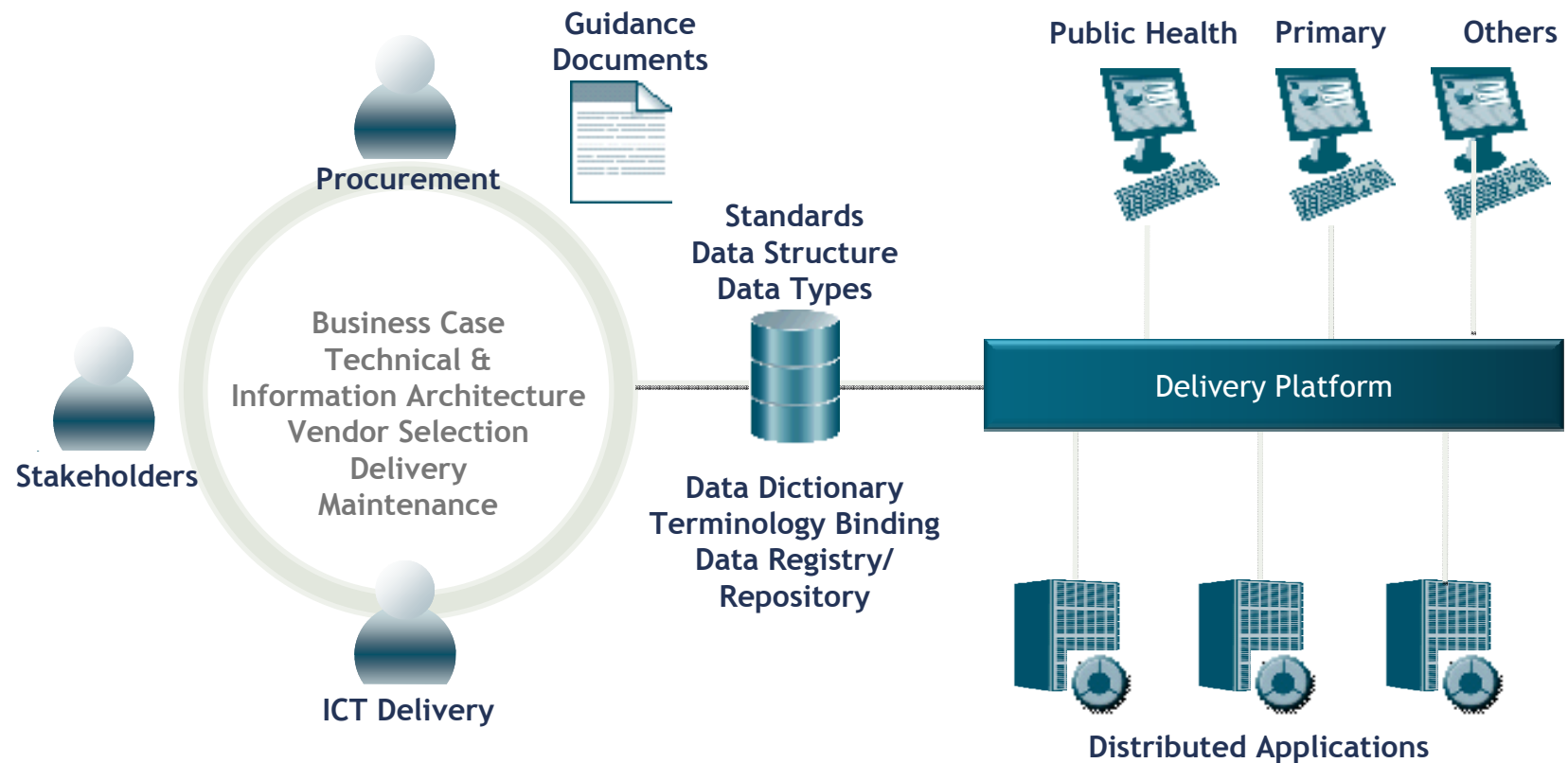
NICIS will be used to capture all immunisation events including national childhood immunisation programmes (including schools), outbreaks, campaigns, late entrants, adult vaccinations and pandemic response. In addition the system should allow for the recording of client information relating to neonatal and metabolic screening, breast feeding and developmentals.

The NICIS system will require data sharing with;

- *The Maternal and Newborn Clinical Management System (MN-CMS) (and prior to that being in place to the Dublin Maternity Hospitals)*
- *The National Client Identity Services*
- *Health Service Provider*
- *GP practice management systems*
- *National Cold Chain Delivery System*
- *Primary Care Reimbursement Services (PCRS)*
- *National Cancer Service*
- *The National Childcare System*
- *Department of Social and Family Affairs*
- *The National Newborn Bloodspot Screening Laboratory (NNBSL),*
- *Universal Neonatal Hearing Screening (UNHS)*



Example Case - Child Health System



Proof-of-Concept (SAM ePSOS)

IHE MEDQUEST HOSPITAL
DISCHARGE SUMMARY

PATIENT: DOGOOD, LARRY
MR#: A1234567
ACCOUNT #: 1234567

DISCHARGE MEDICATIONS:

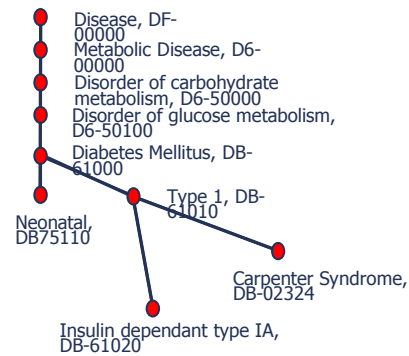
1. ECASA 325 mg po daily (new)
2. Zocor 40mg po daily. (new)
3. Atenolol 100mg po daily (increased)
4. Glucophage 850 mg tab, 1 tab po TID
5. Zyrtec 10mg po daily

DISCHARGE DIAGNOSES:

1. Acute Myocardial Infarction s/p CABG.
2. Cardiovascular collapse
3. Hypertension, NOS
4. Diabetes Mellitus, type II
5. Seasonal Allergies

PROCEDURE: CABG, LIMA->LAD, SVG->Circ, SVG->2/26/07.

HISTORY OF PRESENT ILLNESS: This is a 51 year old history of Hypertension and diabetes admitted with chest pain, and hypotension. Please see the H details of admission. He was noted to have non-s and positive cardiac enzymes on presentation and admitted to the ICU.



**SAM
Repository**

**Clinical
Applications**

**Data
Dictionary
Portal**

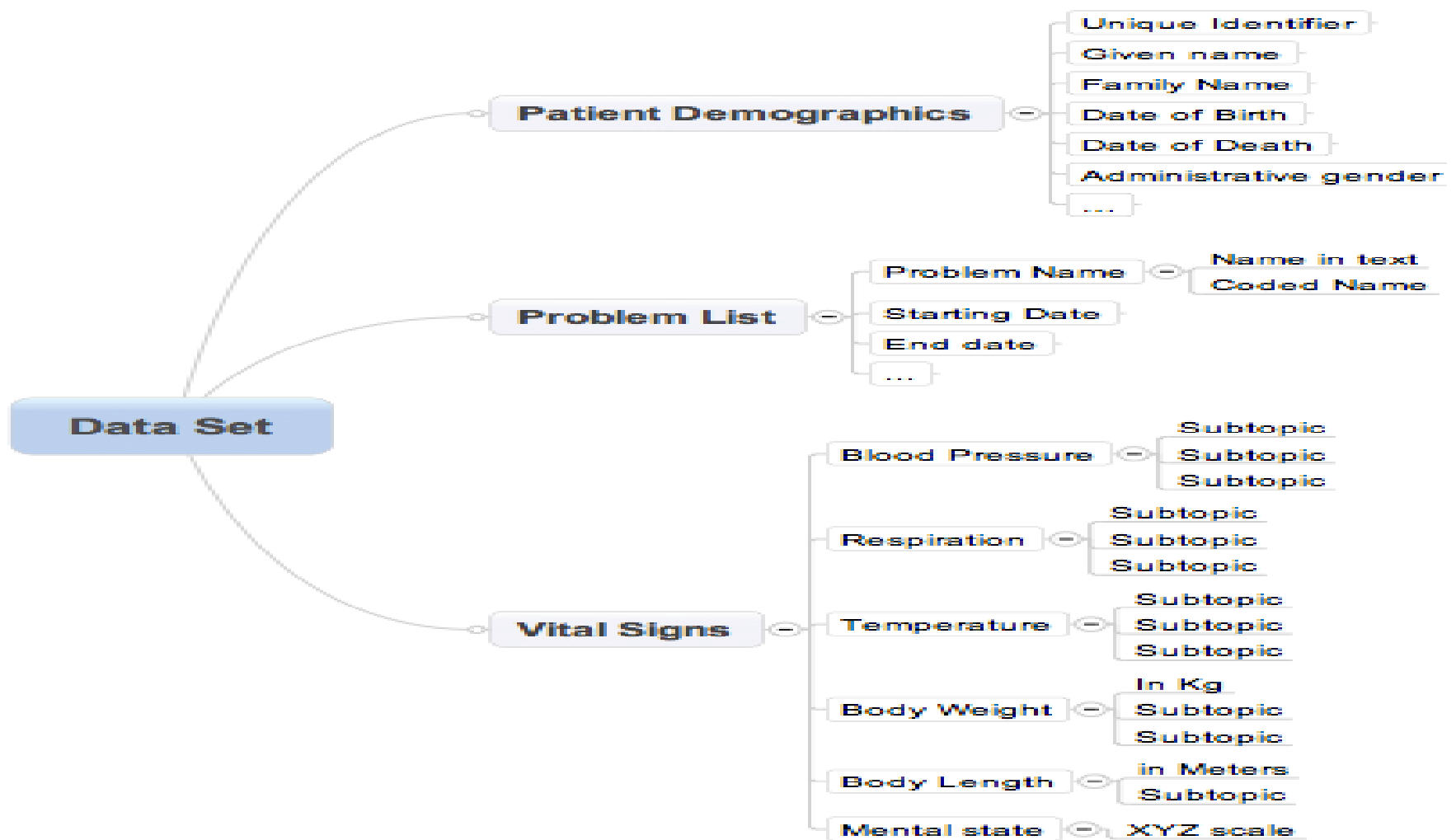
Value

Integrate

**Validate &
Publish**

Proof-of-Concept

Data Set



Approach

- ▮ Workshops
- ▮ Interviews
- ▮ Questionnaires
- ▮ Feedback Sessions
- ▮ Demonstrations



Timeline

Requirement	Due Date
Determination of the Information Model	31/01/14
Data Dictionary	31/01/14
Terminology Assurance	28/03/14
Support Processes & Services	28/03/14

End of Part 1