



Health-e-Nation

Priorities in E-health: an Australian perspective

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The Australian Health Sector

- National Health Expenditures of \$78.6B 2003-4 (two-thirds public, a third private)
- Health spending as a proportion of GDP = 9.7 per cent; (\$3,785 per capita and rising)
- Secondary care – delivered by a mix of states, territories and private providers
- Primary care – GPs & specialists; federal government as primary funder
- Healthcare services – pathology, radiology, pharmacy etc, delivered by private and public providers

What does technology add to the mix?

- Because we need to better manage information if safety & quality in healthcare is to improve
- Electronic systems require greater precision in describing and communicating clinical information
- Implementing e-health highlights the demand for technical, information & organisational interoperability
- A common roadmap guides health information systems investment toward greater cohesion across the sector

Rising demand for change

- Recognition that only a standards-based approach can reap the benefits of interoperability across the health sector
- States and territories need for common standards and national infrastructure across the public hospital system
- Commonwealth pressing for common technical and information standards to be adopted by GPs and specialists
- Private sector healthcare service providers recognise the need for common information transfer standards
- Better safety and quality outcomes are the most tangible benefits of implementing e-health

A nationally coordinated approach

- Information systems that ensure individuals and healthcare providers are uniquely identified across Australia
- Electronic transfer of clinical information using a common language of consistent terms, descriptions and formats
- National directories that accurately identify medicines, medical products, devices and consumables
- Agreed specifications and standards for authenticating users and exchanging messages across the health sector
- Policies and procedures that ensure that consumers' clinical information is protected from unauthorised access
- Design of a national system of shared electronic health records accessible to authorised clinicians and consumers

Breakthrough projects funded

- Council of Australian Governments (COAG) backs acceleration of national electronic health record system – February 2006
- Three initiatives funded to a total of \$130M over three years
 - National clinical terminology
 - National individual identifier
 - National provider identifier

NEHTA's Work Program in 2006

- Delivering Interoperability Framework
- Commissioning Terminologies, Individual & Provider Identifiers
- Implementing Clinical Information, Medical Directory, Supply Chain
- Defining Secure Messaging, User Authentication, e-Health Policy (inc Benefits)
- Adopting Standards Implementation
- Designing Shared EHR

Delivering... Interoperability Framework

- National framework for interoperability
- Aug 05: *Towards A Health Interoperability Framework*
 - Identifies organisational, information and technical perspectives
- Mar 06: *Interoperability Framework v1.0*
 - Introduces Enterprise Architecture approach
 - Detailed organisational, information and technical frameworks to be delivered in 2006
- Conformance testing and certification models

Commissioning... Identifiers

- National commitment to Individual Healthcare and Healthcare Provider identification systems.
 - Individual Healthcare Identifier: \$45M / 3 years
 - Healthcare Provider Identifier: \$53M / 3 years
- For both Identifiers:
 - Detailed Design Phase commenced
 - Project Planning and Procurement Strategy
 - Procurement planned for late 2006
 - Target availability late 2007

Commissioning... Terminologies

- National commitment to SNOMED as core clinical terminology
- NEHTA developing national capability to develop, maintain, distribute and support SNOMED
 - \$32M / 3 years
 - Project planning commenced
- Global collaboration through SNOMED Standards Development Organisation
 - Australian customisation and extensions commenced
 - Medicines
 - Pathology

Implementing... Clinical Information

- Nationally agreed priorities for clinical communications
- Specifications released in 2005:
 - Adverse reactions; Alerts; Clinical Intervention; Clinical Synopsis; Immunisation; Observation; Problem/Diagnosis; Reason for Encounter
- Specifications for release in 2006:
 - Medications; Pathology; Diagnostic Imaging; Discharge & Referral; Event Summary Templates
- Implementation support commenced

Implementing... Medicines Terminology and Catalogue

- Medicines Terminology- as extension of SNOMED
 - Different identifiers for regulatory (ARTG), prescribing, dispensing, reimbursement (PBS), procurement (GTIN)
 - Aim: uniquely identify medicines with common descriptors
 - Proof of Concept delivered; build commenced
- Australian Catalogue of Medicines (ACOM) :
 - Implementation underway
 - Coordinated approach with National Product Catalogue
 - Provides core information including market availability

Implementing... Supply Chain

- National Product Catalogue:
 - Agreed national approach
 - Catalogue a key pre-requisite for e-procurement
 - GTIN standard adopted as national identifier
 - ACOM will provide medicines component of NPC

- Commenced development of business cases for:
 - Procurement Hub
 - Business Intelligence tools

Defining...

- Secure Messaging:
 - Feb 06: *Towards A Secure Messaging Environment*
 - Service Oriented Architecture
 - Feb 06: *Web Services Standards Profile*
- User Authentication:
 - Examination of federated trust model
 - 'Digital' Identity Management
 - Applied to identifiers project
- eHealth Policy:
 - Privacy impact assessments for identifiers and SEHR
 - Policy and regulatory implications of all projects
 - Mar 06: *Benefits Realisation Study Overview*

Adopting... Standards Implementation

- Mar 06: Standards Development – *A Management Framework*
- June 06: Standards adoption, uptake and implementation
- Coordination with Industry
- Standards Catalogue
- Web-based resource centre for specifications

Designing... Shared Electronic Health Record

- Feb 06: *Review of SEHR Standards*
 - Independent report
 - European standards for EHR; HL7 messaging
- Concept of Operations to be released shortly
 - Centralised versus federated model

Consultation and implementation

- Consultation with jurisdictions on design and implementation issues - specialist reference groups
- Clinician briefings – to forums of GPs, specialists, nurses, consumers, professional bodies (AMA/ADGP/Colleges)
- Health software companies, hardware suppliers, systems integrators, service providers - vendor briefings (AIIA/MSIA)
- Standards Australia IT14 committees, HL7, ISO, CEN - NEHTA Industry Seminar 22 May
- Specific input to projects by domain experts – e.g. pathology, medicines, clinical specifications reference groups
- All national, state & territory governments to mandate NEHTA standards & infrastructure – Board

The timetable

- Three major COAG projects will begin implementation in FY 2006-7 (to be completed by end of FY 2008/9)
- Current work program to produce foundation components for e-health funded through to the end of FY 2007-8
- Review of NEHTA's progress to be conducted mid-2007
- Health Ministers report back to COAG no later than 2008 on:
 - Progress & next steps towards a national health record system
 - Appropriate cost sharing arrangements

Increasing momentum of e-Health

- Renewed emphasis and investment in e-health is a global phenomenon e.g. UK, Canada, USA
- Establishment of a jointly governed and funded national entity with a specific mandate for change
- Substantial investments by Australian governments in some of the key components of an e-health system
- Availability of common standards, identity services and terminologies providing greater certainty to the public and private sectors
- Stage is set for governments to consider a national system of electronic health records



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E-Health: a brief history

- Health information projects conducted in isolation, without regard for national interoperability
- Standards development impeded by fragmentation, voluntary effort and optional adoption
- Lack of confidence that ICT can be harnessed to enable reform in a large, complex and confusing health sector
- Frustration by clinicians, administrators and consumers at the slow pace of change
- Vendor suspicion that renewed focus on e-health promises yet another false dawn