

E-Health and NEHTA

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“Integrating heterogeneous data sources: a technology or policy challenge”
OECD-NSF Workshop: Building a smarter health and wellness future
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NEHTA's purpose: establishing the foundations for e-health



Lead the uptake of e-health systems of national significance; and coordinate the progression and accelerate the adoption of e-health by delivering urgently needed integration infrastructure and standards for health information.

Personally Controlled Electronic Health Record	Clinical Information	Individual Information	Shared Information	[Others]
E-Health Services	Shared Health Profile	Events Summaries	Self Managed Care	Complex Care Management
E-Health Solutions	eDiagnostics	eDischarge	eReferral	eMedications
National Infrastructure Components	Clinical Terminology & Information	Secure Messaging	Identifiers	Authentication

Context: Healthcare provision in Australia



The role of public and private systems:

- The system and processes are managed by a mix of government and private sector organisations
- Our Architecture is designed to link-up healthcare information within this context – where standards based information sharing is the key
- It represents a “middle-road” approach, creating common technical goals with underpinning standards

Context:

Heterogeneous Data Sources



Heterogeneous Data Sources are islands of information *collected, accessed, used and disclosed* with a purposeful orientation towards the businesses operation.

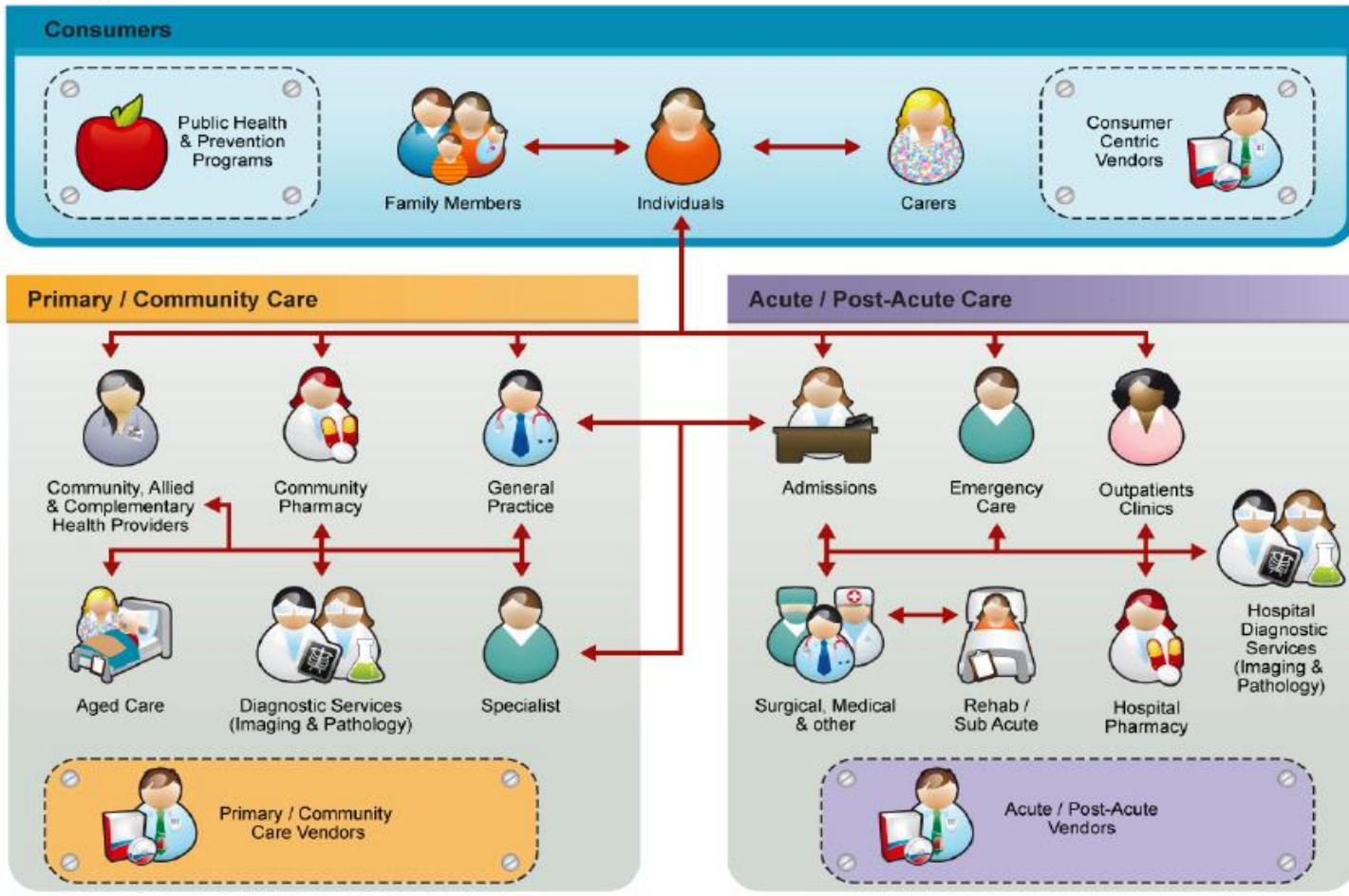
E-Health Integration presents challenges:

- **Technology** – Semantic & Syntactic Interoperability
- **Policy** – Necessary business drivers and protections are present.

The E-Health Community (data flows/sources)

nehta e-Health Community v1.0

- Change and Adoption**
- Governance & Regulation
- Collaboration
- Comms & Engagement
- Education & Training
- Monitoring & Evaluation
- Standards & Conformity Assessment

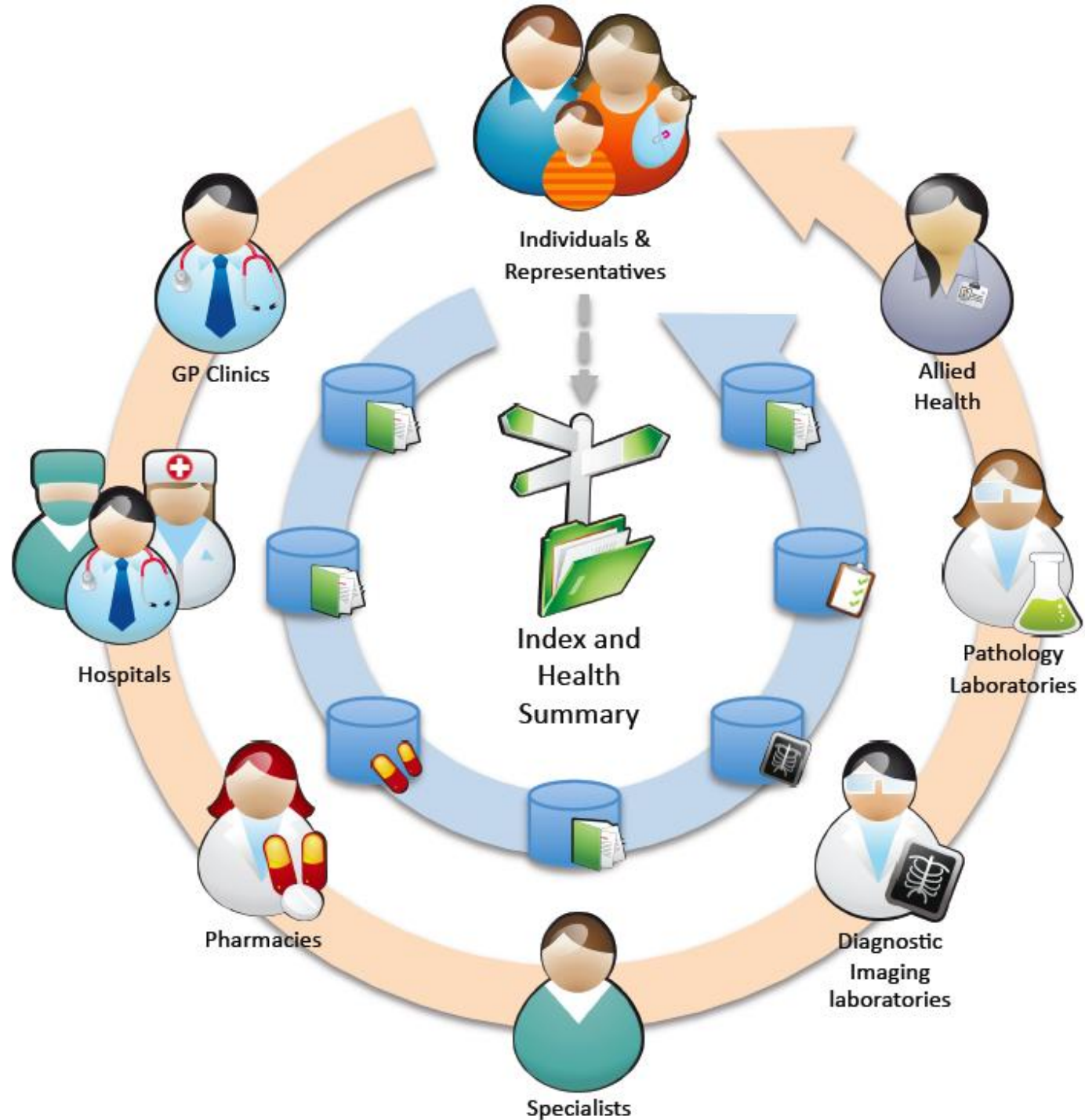


- E-Health Services**
- Secure Messaging
- Directories
- Prescriptions
- Diagnostic Services
- IEHRs, PHRs, etc
- Registries & Secondary Uses



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A
Personally
Controlled
Electronic
Healthcare
Record
System.



Technology Challenges



- **Healthcare Identifiers & Directories**
 - Individuals, Providers, Organisation, Technical & Business Services & “things”.
- **Authentication and Access Security**
 - Nationally trusted certificates & Access frameworks
- **Terminology**
 - Australian Medications Terminology
 - SNOMED-CT-AU
- **E-Health Solution Specifications**
 - Referrals, Prescriptions, Diagnostics
- **All Standards based**
 - IHTSDO, HL7, Standards Aus (IT14), ISO, IEEE

Policy Challenges

Ensuring that policy makers consider the impact of their decisions.

Why should a provider or consumer **participate** (business & personal driver) and how can they be **protected** (legal and medico liability, privacy)

In particular:

- Rules for the identifiers as a key to “linking” data
- Consent models for consumer participation
- The impact of proprietary solutions, where commercial interests in the complementary use of data, and where this may restrict wider access to the data for public good.

In Summary: Clearly there are benefits in using the data we already have

How we make best use and deal with the challenges requires ongoing work.

In particular:

- Common governance
- Alignment of architectures, standards & policy
- Collection of management data & performance metrics
- Clear operational responsibilities
- Guidance for ethics committees

Thank you

Questions

