



Developing a National Digital Health Strategy for Australia – putting the foundations in place

Tim Kelsey, Chief Executive
Australian Digital Health Agency





About us

The Agency is a Corporate Commonwealth Entity funded by all Australian Governments. It designs and operates national digital health services and set data standards that:

- Give **consumers more control of their health and care** when they wish it
- **Connect and empower healthcare professionals**
- Promote **Australia's global leadership in digital health and innovation**

The Agency reports to its Board, appointed by the Minister.

The Agency is the system operator for the My Health Record, and a number of other clinical information systems and standards, and commenced operations on 1 July 2016.

“The digital health market will grow at over 25.9% compound annual growth rate to reach \$379bn by 2024” Hendersen et al. (2016)

“Australia is well placed globally to take advantage of this growth as a test bed for health innovation and research” Global Market Insights, Inc 23 Nov 2016



The Rule

The Agency functions as stated in the rule that established it are to:

- Co-ordinate, and provide input into, the ongoing development of the National Digital Health Strategy;
- Implement those aspects of the National Digital Health Strategy that are directed by the Ministerial Council;
- Develop, implement, manage, operate and continuously innovate and improve specifications, standards, systems and services in relation to digital health, consistently with the national digital health work program;
- Develop, implement and operate comprehensive and effective clinical governance, using a whole of system approach, to ensure clinical safety in the delivery of the national digital health work program;
- Develop, monitor and manage specifications and standards to maximise effective interoperability of public and private sector digital health systems;
- Develop and implement compliance approaches in relation to the adoption of agreed specifications and standards relating to digital health;
- Liaise and cooperate with overseas and international bodies on matters relating to digital health.



Delivery priority areas for the Australian Digital Health Agency now



My Health Record

An electronic summary of an individual's health information that **can be shared securely online** between the individual and registered healthcare providers involved in their care to support improved decision making and continuity of care.

"My Health Record is the future of medicine." Dr Michael Gannon, President, Australian Medical Association

"One of the recurring contributory factors identified during health-related coronial investigation and inquests is a failure in communication, particularly in documentation, discharge and handover...lapses in communication can have the potential for serious outcomes for patients. **I cannot overstate the importance of effective communication in a health care setting.**" Ms Ros Fogliani, State Coroner, Western Australia

Key Facts

- There are 230,000 hospital admissions due to medication adverse events per year, costing up to \$1.2 billion annually. My Health Record will reduce this number.
- Empowering people with health care information to support self-management could save \$1,300 to \$7,515 per patient per year.
- Sharing information electronically about tests could reduce unnecessary duplication by approximately 18% and significantly lower hospital re-admission rates.



My Health Record Statistics – as at 5 March 2017

4,643,128 Consumers registered

Demographic Breakdown

54% are female and 46% are male



Age Range	Aged 20 or less		Aged 20-39		Aged 40-64		Aged 65 or higher	
% of total registrations	34%		24%		26%		16%	
State	ACT	TAS	SA	NT	NSW	VIC	QLD	WA
% of population	22%	19%	17%	19%	20%	14%	26%	14%

Approximately 19% of Australia's population is registered for a My Health Record

9,766 Healthcare providers registered

Organisation Type*	Count
General Practices	5,990
Public Hospitals and Health Services	730
Private Hospitals and Clinics	142
Retail Pharmacies	1,294
Aged Care Residential Services	172
Other categories of healthcare providers including Allied Health	1,206
Organisations with a cancelled registration	232

*Organisation type based on Healthcare Provider Organisation (HPI-O) data, except for Hospital provider data which is based on jurisdictional reported facilities that are connected to the My Health Record system.

Clinical Document Uploads	1,727,967
Shared Health Summary	636,824
Discharge Summary	809,843
Event Summary	202,604
Specialist Letter	39,186
eReferral Note	29
Diagnostic Imaging Report	39,481
Prescription and Dispense Uploads	8,225,709
Prescription Documents	6,342,024
Dispense Documents	1,883,685
Consumer Documents	128,062
Consumer Entered Health Summary	80,076
Consumer Entered Notes	34,523
Advanced Care Directive Custodian Report	12,652
Advance Care Planning Document	811
Medicare Documents	447,891,249
Australian Immunisation Register	977,931
Australian Organ Donor Register	434,788
Medicare/DVA Benefits Report	264,261,844
Pharmaceutical Benefits Report	182,216,686

Consumer Registrations

Provider Registrations

My Health Record Usage



How My Health Record can transform quality, experience and value



Improving Medication Safety

A significant proportion of medication errors that lead to harmful Adverse Drug Events (ADE) may be preventable through increased accessibility to patient information, such as that provided by **My Health Record**.

- 2% to 3% of hospital admissions are caused by medication errors (230,000 per year at a cost of \$1.2 billion annually)
- 2 of every 3 patients experience a medication error on admission
- Over 3% of people staying in hospital experienced an ADE as a cause of or during admission in an Australian study – over 10% of these were considered life threatening
- 12 to 13% of discharge summaries contain medication errors (2 per patient)
- Estimated 50% of ADEs could be avoidable with My Health Record



Access to information for people and their care providers

Access to information via **My Health Record** will enable self-management and reduce clinician's time necessary to perform several information-led tasks, freeing up productivity for more critical activities.

- Enabling self-management will save \$1,300 to \$7,515 per patient per year, and significantly lower hospital re-admission rates
- Over 10% of GPs waste time every day unsuccessfully searching for missing clinical information
- 13% of visits with information missing in Primary Care
- 57% missing information is actually available in another system



Reducing Unnecessary Test Duplication

The savings resulting from improved sharing of investigation results between healthcare providers enabled through the **My Health Record**

- 18% reduction in test duplication using an EHR
- Estimated 10% of pathology tests avoidable through My Health Record
- Estimated 10% of Diagnostic images avoidable through My Health Record

My Health Record

Note: Statistics from My Health Record system Return to Government Benefits Model.



How is My Health Record changing healthcare today? 1/2



It made me safe when I left hospital

“It was my son’s birthday and I visited him in Sydney to celebrate. We checked into the hotel and three hours later I was in the back of the ambulance on the way to hospital. They found I had a thing called pancreatitis. After four days in hospital, I talked them into letting me out as long as I went to see my doctor for important follow up work as soon as I got home. When I got to my doctor I realised the hospital hadn’t given me any information about the treatment I needed. Luckily my doctor checked My Health Record and within a minute was able to find details of what needed to be done to look after me.”

<http://ncphn.org.au/benefits-of-my-health-record/>



It helps me improve medication safety for my patients

“When a patient is admitted, I become like a detective, as I need to ask lots of questions to establish what medications people are on and how that will work with their diagnosis. By having access to the My Health Record system, I get to see a summary of a patient’s medical history, including their medications. I receive the information instantly. It is very powerful.”

<http://www.primaryhealth.com.au/a-hospital-pharmacist-shares-how-he-benefits-from-my-health-record/>



It made it easier for me obtain my medicines

A My Health Record meant Shaij Ataij in rural NSW could get a repeat prescription made up at her pharmacy without having to make a special appointment with her GP. She said: “I called my GP to get a new script for my usual medicine. It was something I didn’t need to see the doctor about. But the receptionist told me that I would need to tell her the details of the medication before she could provide me with the prescription. I wasn’t sure of the name and dose of my medication, so I got onto my computer and found my medication information on My Health Record. I was then able to call back the GP and they faxed a script to my pharmacy for me to pick up.”

<http://ncphn.org.au/benefits-of-my-health-record/>



How is My Health Record changing healthcare today? 2/2



It helps me care for my patient safely at home

Kevin is a 48 yo man with multiple chronic conditions including diabetes, renal failure and hypertension. He was admitted to hospital after a serious cardiac event. His GP visited Kevin at home shortly after he left hospital and had not yet received the discharge summary in his practice, but by viewing the summary in My Health Record was able to see that five of Kevin's medications had changed. His G was able to provide immediate follow up care to Kevin regarding the medication changes. *"I was able to prepare and print the prescriptions for the new medicines and use the discharge summary as a checklist when I visited Kevin and reviewed the medication. Without this information I would not have been able to provide the follow up care I needed to."* He was then able to upload a new Shared Health Summary for Kevin, ensuring the new medication regimen was available in his My Health Record to other care providers.



My Health Record enhances patient self-management and reduces time communicating with care professionals

Ray and Lorraine Gardner are 'grey nomads' who frequently travel Australia. They both suffer from chronic conditions including diabetes, melanoma, a back fusion, and a penicillin allergy. Their local GP in Windsor, Dr Michael Crampton, has been contributing their health information to My Health Record to assist other GPs and health care professionals in other states who often become involved in their care. This reduces the time they need to spend with other clinicians, who have immediate access to see their medications and important health summary information including tests and reports. This enhances Ray and Lorraine's ability to self-manage their conditions and enjoy their travels with the confidence that they have access to their own health information, and can share this with providers when they choose.



My Health Record guides community care for families

Tresillian is a community health care service that supports and educates families in the community with newborn children, to help manage early parenting issues. A clinician at Tresillian in the Nepean Blue Mountains region found the clinical information for a mother attending the service invaluable in providing past history and discharge summaries, and reported that this information changed the course of clinical treatment for the family. The service are now avid users of My Health Record, and have fed back to their Primary Health Network that My Health Record gives them a more complete picture of the patient and information they need.



We are improving My Health Record now so that it works better for clinicians and their patients – we put co-design first

Principles for enhancing My Health Record

Adoption of the Digital Transformation Agency's Digital Service Standard



Collaboration

- co-design
- validation of concepts and designs
- core design teams
- co-production

**Describe
the task,
not the
technology.**

User-centred approach

- user research
- insights from evaluations and national strategy consultations
- user experience (UX) improvements

Strong governance and oversight

- assurance: clinical safety, security, operations
- release management

**User
research
is a team
sport.**



In June, in close collaboration with clinical leaders, like the RACGP, and consumer bodies like the Consumer Health Forum, we will be improving key features of My Health Record...



For example, improving access to medicines information

My Health Record information for:

Name: [Surname] [Given name]

Sex: Male

DoB: 25 Aug 1980

IHI: 8003 XXXX XXXX 9403

Allergies and adverse reactions referenced in this My Health Record

Tramadol



Find available medicine information in this My Health Record

The My Health Record contains documents that have been uploaded by healthcare providers from their connected clinical information systems, and may contain additional information entered by the owner of this My Health Record or one of their carers.

This view should not be wholly relied upon as a complete record of medicines related information.

View generated on 7-Feb-2017 at 12:53

Document preview list
Last updated 08-Dec-2016
7 weeks ago

Latest Shared Health Summary
30-Nov-2015
13 months ago

Latest Discharge Summary
10-Jul-2016
6 months ago

To assist you to find medicines related information on this patient's My Health Record, screen previews are provided (where available) with links to the source documents where more detailed information can be obtained.

IMPORTANT: Some documents do not allow for a preview of medicines information, and should be opened by the links provided.

Document preview list

Filter by keyword (medicines and ingredients):

Sort by:

Newest to oldest ▾

Filters:

All authors ▾

Last 12 months ▾

All document types ▾

[Reset all](#) [Show more filtering options](#)

View source document(s)	Date	Active ingredient(s)	Medicine brand or trade name	Directions	Author
Prescribe	08-Dec-16 7 weeks ago	Budesonide, Eformoterol fumarate dihydrate	Symbicort 200mcg/6mcg Powder for Inhalation	2 Twice a day as asthma preventer	Jerry Davidson
Latest dispensed	08-Dec-16 7 weeks ago 1 dispense	Celecoxib	Celebrex 200mg Capsule Dispense differs 3 months before as CELECOXIB (RBX) 200mg CAP	1 Daily pm for joint pains.	Jerry Davidson
Prescribe	03-Dec-16 8 weeks ago	Influenza Vaccine - Inactivated, split virion	Fluarix Trivalent Syringe		Jerry Davidson
Prescribe	03-Dec-16 8 weeks ago	Prednisolone	Prednisolone 25mg Tablet	1 Daily As directed for 10 d then stop	Jerry Davidson
Dispense	19-Aug-16 5 months ago	SIMVA STATIN	SIMVAR 80mg TAB	Take ONE tablet before bed for cholesterol	Jerry Davidson
Prescribe	14-Jul-16 6 months ago	Pregabalin	Lyrica 25mg Capsule	1 In the evening without regard to meals increase	Jerry Davidson
Discharge Summary	10-Jul-16 6 months ago	This document does not allow for a preview of medicines information. Click here to view the source document.			Dr James T Becker



Delivery priority areas for the Australian Digital Health Agency now



The National Digital Health Strategy: consultation confirms citizens want digital access to health



Australians value our **high quality** healthcare practitioners and workers, and generally experience **affordable** and **accessible** care

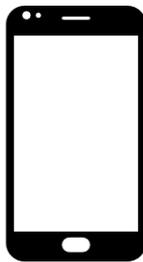
Over **65%** of respondents say the Australian healthcare system is difficult to navigate. People want to know the cost, quality, and availability of services



Over **45%** of respondents had difficulty accessing healthcare when they needed it.

Top reasons given:

- Cost,
- Location, and
- Couldn't get an appointment



More than **four times** as many people want to access their personal health information on their smart phone than do currently

The **top three** activities people want to be able to do on their mobile device:

1. Manage their medications
2. Track their health
3. Request refill prescriptions

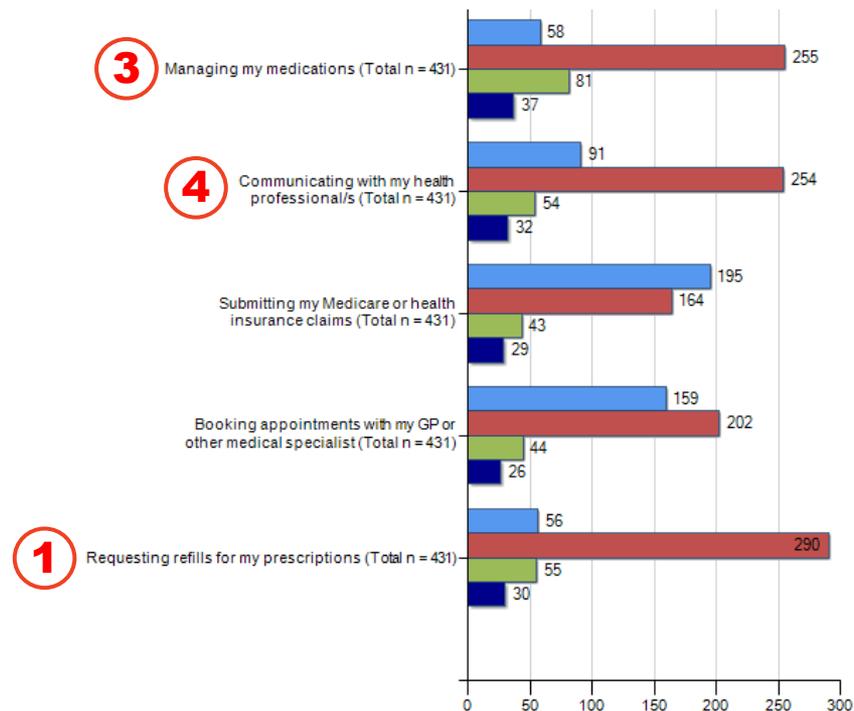
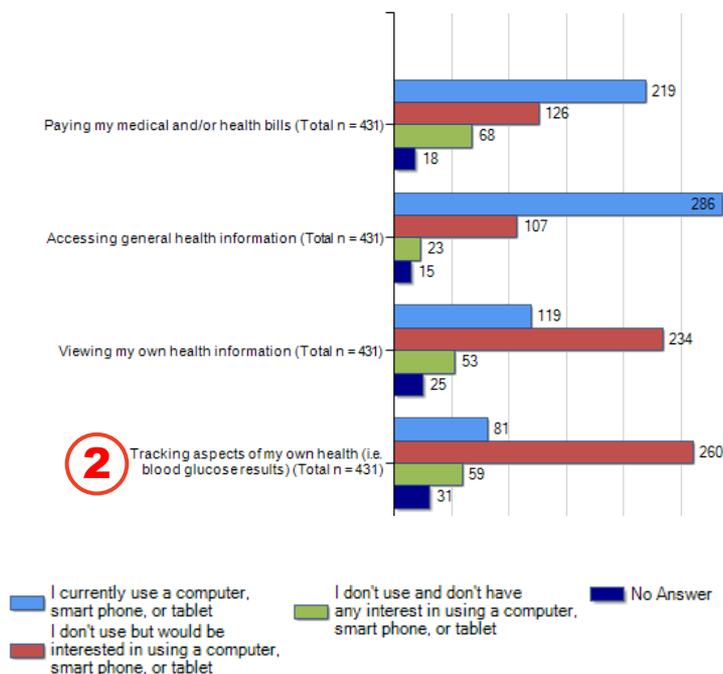


People are most interested in using a computer, tablet or smart phone for these purposes



People are **most interested** in using a computer, tablet or smart phone to:

1. Request refills for their prescriptions,
2. Track aspects of their own health,
3. Manage their medications, and
4. Communicate with health professionals



Healthcare professionals want digital health services

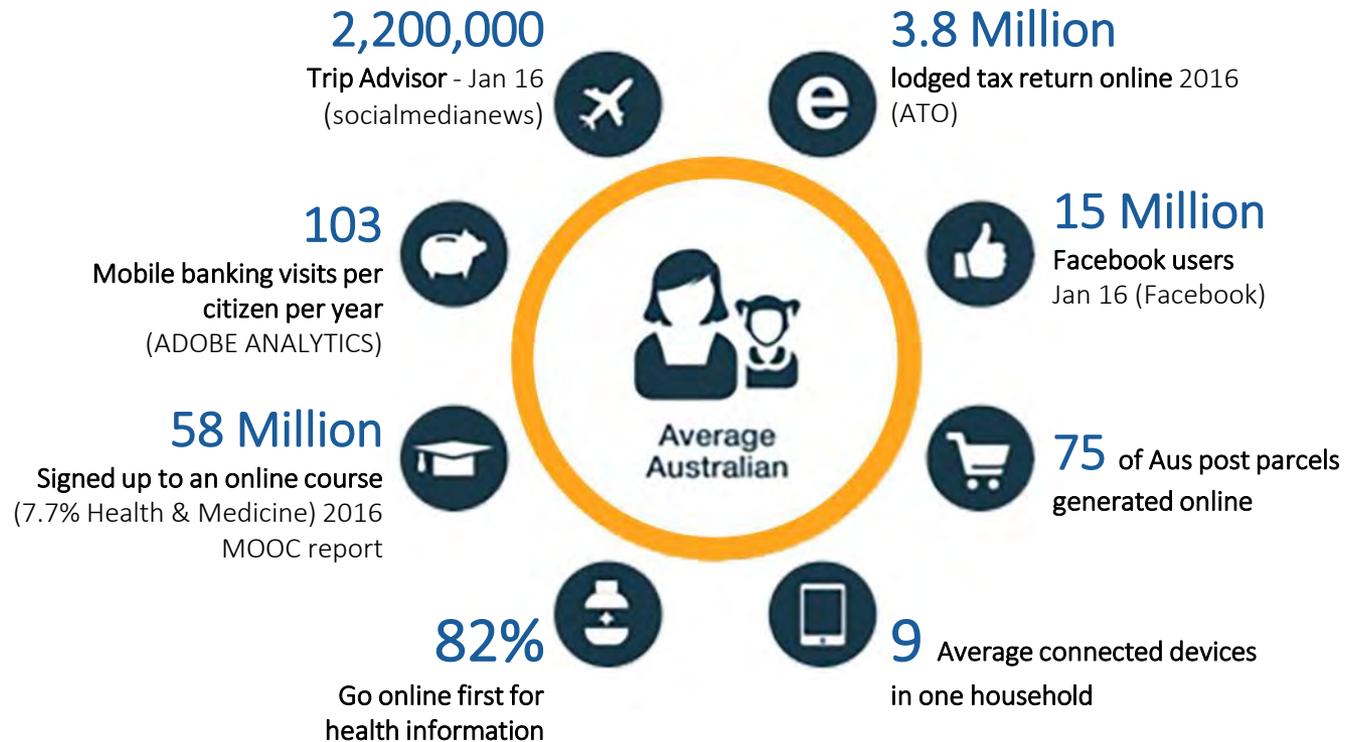


Top 5 activities **health professionals** want to use digital technologies to help better support them to deliver health services

Activity	Currently using a computer, smart phone or tablet %	Not using, but interested in using a computer, smart phone or tablet %	Not interested in using a computer, smart phone or tablet for this activity %
Sharing health records with my patients	25	58.5	7
Transferring prescriptions to the pharmacy	24.6	55.5	8.1
Providing interactive decision-making support	32	52.9	5.9
Communicating with patients before or after consultations	33.1	48.9	7
Sharing health records with other practitioners	42.6	45.2	4.4



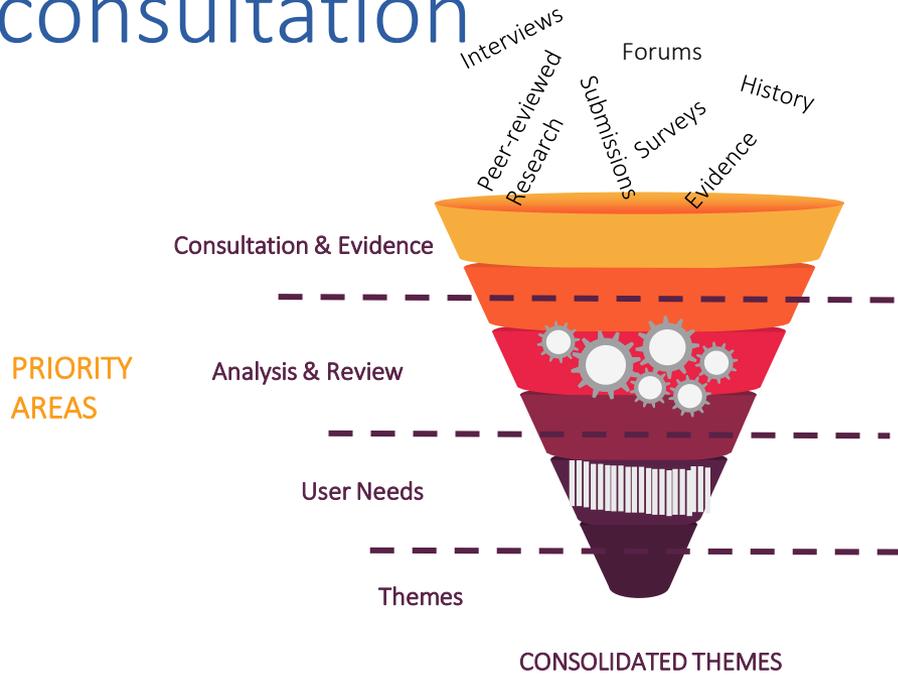
Australians are already digitally connected



“Australians are already digitally connected”



Delivery themes emerging from consultation



Evidence

We are undertaking broad scoping reviews of the international peer reviewed and grey literature, including publications from key digital health organisations, policy and media, as well as conducting targeted interviews with digital health thought leaders

Consultation overview

- 3,193 attendees
- 1050 written and survey submission from general public, organisations, technology sector etc.
- 103 forums, meetings and workshops
- Interviewed thought leaders across different sectors
- Deep engagement with jurisdictions to understand their strategies and priorities



Key themes from consultation

Support me in making the right healthcare choices, and provide me with options

“[I want] better culturally diverse resources, health literacy and personalised support” – Healthcare Provider, Female, Qld

- 11.7% of people >15 years of age in rural/remote experienced difficulty accessing a doctor

Help all the people who care for me to understand me, and together, provide safe and personalised care

“It is vital that medical professionals have access to a holistic view of patient data to fully understand the client’s needs...”

- 91% of people living with dementia live in the community rely on an informal carer to support them with 22% relying solely on informal care

Create an environment where my healthcare providers and I can use and benefit from innovative technologies

“Our smartphones and tablets need to be an extension of access to the healthcare system and customizable to our individual needs.”

- 7% make an appointment online to see a doctor or organise a hospital appointment
- 83% complete doctor or hospital registration details online before visit
- 70% order prescription drug refills using mobile apps on your phone.
- 66% use a device that connects to a smartphone and send information to the doctor.

Preserve my trust in the healthcare system and protect my rights

“I need to be confident that my information is securely held and that it is not going to be accessed by unknown people.”

- In the UK, based on a cost to the NHS of £45 per GP visit, ensuring everyone had the basic digital skills to access health information online would provide savings of around £120 million a year by 2025



Priority areas for delivery to 2022

MY HEALTH RECORD

Consolidate and accelerate My Health Record to become the data rich, open access platform for health in Australia

SECURE MESSAGING

Enable health and care providers to easily find each other and securely exchange clinical information

INTEROPERABILITY AND DATA QUALITY

Exchange of clinical information meaningfully across health and care systems through interoperability

MEDICATION SAFETY

A digitally enabled national medicines program to increase the safety and quality of medicines use

ENHANCE MODELS OF CARE

Enhancing key models of care and allowing evaluation and refinement through test bed projects, e.g. health care homes, childhood record, end of life, mental health and aged care

WORKFORCE EDUCATION

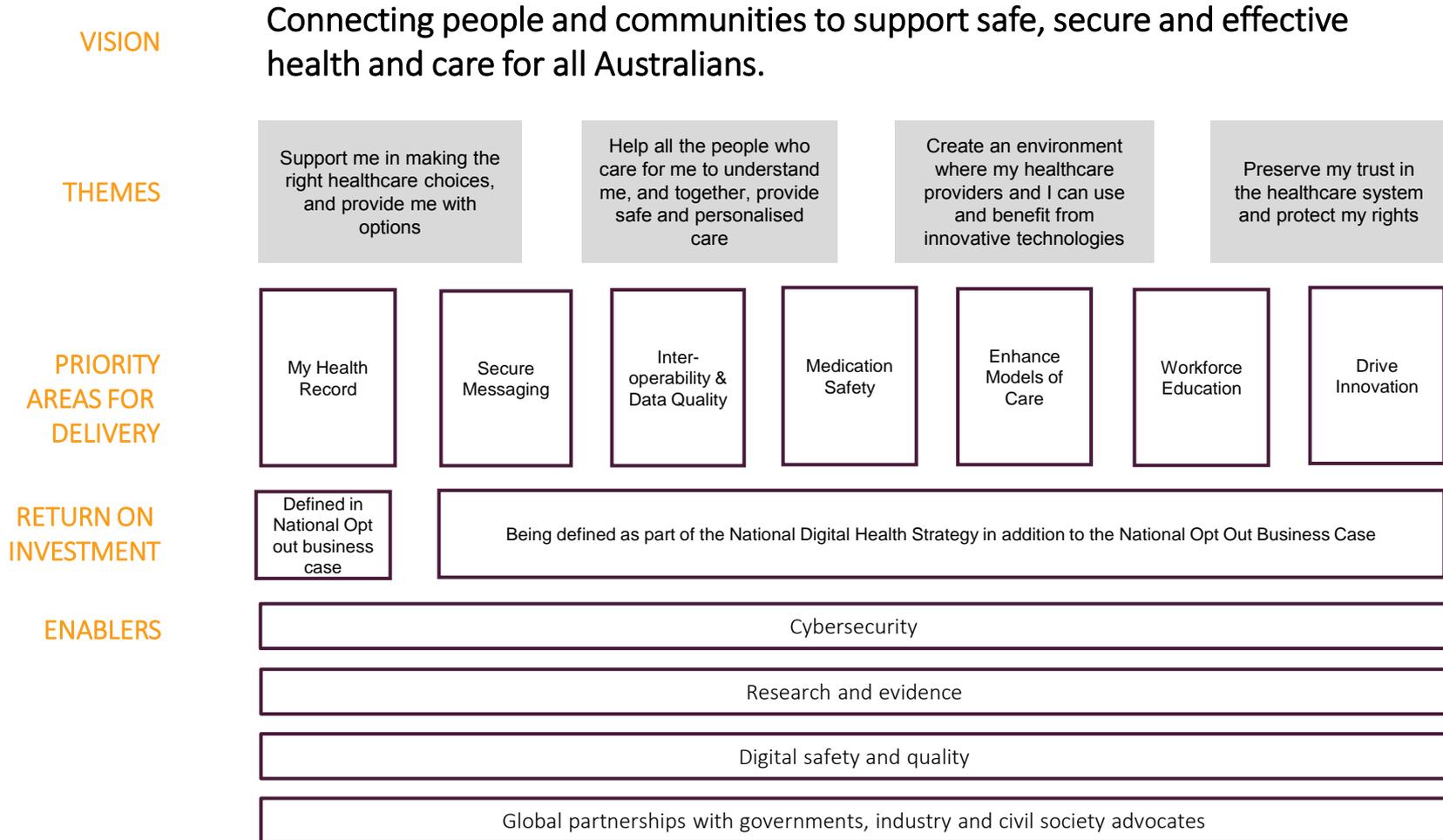
Support education and adoption of digital health initiatives by the broad health and care workforce

DRIVE INNOVATION

Drive and scale innovation through enabling industry to understand, access, design and build services for consumers and those who provide health and care



Strategy hierarchy for digital health to 2022



Leading Innovation

- Australia is regarded as a world leader in digitally connected health care
- Strong international interest – MoU with US – also UK, NZ, Germany, India & UAE
- Australia is positioned as an international testbed for new medicines, devices, research and innovation
- Agency supporting design of My Health Record and other digital services to support:
 - Genomics
 - Integrated care
 - Healthcare Homes
 - Aged Care
- All new investment must be underpinned by an interoperable and connected health system

Key Facts

- Next-generation genomics - the impact of disease prevention and treatment applications that we size could be \$500 billion to \$1.2 trillion per year in 2025.
- The Internet of Things has the potential to create economic impact of \$2.7 trillion to \$6.2 trillion annually by 2025. - internet enabled devices.
- The total economic impact of cloud technology could be \$1.7 trillion to \$6.2 trillion annually in 2025.
- The application of advanced robotics across health care, manufacturing, and services could generate a potential economic impact of \$1.7 trillion to \$4.5 trillion per year by 2025, including more than \$800 billion to \$2.6 trillion in value from health-care uses.



Contact us

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