



Agenda

Council for Connected Care: Meeting 01

Virtual - Microsoft Teams

10am to 12.30pm (Australian Eastern Standard Time) on Wednesday, 7 June 2023

OFFICIAL

Item #	Timing	Topic	Presenter
1	10 mins	Welcome, Acknowledgement of Country and Traditional Owners, and apologies	Rob Heferen, Chair
2	5 mins	Conflicts of interest	Rob Heferen, Chair
3	25 mins	Member introductions	Members
4	30 mins	Digital health directions – Budget 23/24 and the future of digital health	Amanda Cattermole, Chief Executive Officer Daniel McCabe, First Assistant Secretary, Department of Health and Aged Care
5	30 mins	Why connect Australian health care?	Peter O'Halloran, Chief Digital Officer
6	20 mins	Council workplan 23/24	Herbert Down, Branch Manager Clinical and Digital Health Standards Governance
7	20 mins	How can standards drive connected care?	Herbert Down, Branch Manager Clinical and Digital Health Standards Governance
8	5 mins	Terms of reference	Rob Heferen, Chair
9	5 mins	Other business <ul style="list-style-type: none"> 23/24 meeting schedule 	Rob Heferen, Chair

In attendance:	Rob Heferen, Chief Executive Officer (CEO), Australian Institute of Health and Welfare (Chair) Jason Agostino, Senior Medical Advisor, National Aboriginal Community Controlled Health Organisation Annie Butler, Federal Secretary, Australian Nursing and Midwifery Federation Simon Cleverley, Assistant Secretary, Australian Government Department of Health and Aged Care Elizabeth Deveny, CEO, Consumer Health Forum Kirsty Faichney, Deputy CEO, Services Australia David Hansen, CEO, Australian e-Health Research Centre, Commonwealth Scientific and Industrial Research Organisation John Lambert, Chief Clinical Information Officer (CIO), Northern Territory Health Laurie Leigh, CEO, National Disability Services Daniel McCabe, First Assistant Secretary, Australian Government Department of Health and Aged Care Danielle McMullen, Vice President, Australian Medical Association Bettina McMahon, CEO, Healthdirect Paul Miles, Director eHealth and Medication Safety, Australian Commission on Safety and Quality in Health Care Christopher Pearce, Chair Digital Health Committee, Australian College of Rural and Remote Medicine Louise Schaper, CEO, Australasian Institute of Digital Health Peter Sprivilis, Chief CIO, Western Australia Health Ruth Stewart, National Rural Health Commissioner Lisa Todd, Economics, PBS & Data Director, Pharmacy Guild Australia Mark Upton, Director, Strategy, Information Management and Governance Office, Tasmanian Department of Health Robyn Whyte, CEO, North Queensland PHN Trish Williams, Digital Health Expert	Proxy: Anne Liddell, Head of Policy, Aged & Community Care Providers Association Lucy Cheetham, Director Policy and Research, Australian Private Hospitals Association (APHA) Jackie O'Connor, Policy Lead, Allied Health Professions Association Peter Williams, Member Health Policy Advisory Leadership Team, Australian Information Industry Association
Agency attendees:	Amanda Cattermole, CEO Peter O'Halloran, Chief Digital Officer Herbert Down, Branch Manager for Clinical and Digital Health Standards Governance Siobhan McFadden, Director Interoperability Implementation Lisa Murphy, Director, Digital Health and Aged Care Standards	Apology: Simon Bush, CEO, Australian Information Industry Association Emma Hossack, CEO, Medical Software Industry Association Bronwyn Morris-Donovan, CEO, Allied Health Professions Association Michael Roff, CEO, APHA Tom Symondson, CEO, Aged & Community Care Providers Association
Secretariat:	Kate Williams, Project Manager, Interoperability Implementation Team Patricia Galang, Project Manager, Interoperability Implementation Team	



Council for Connected Care

Agenda Item 2: Conflicts of interest

Meeting: 7 June 2023

OFFICIAL

RECOMMENDATIONS

That Members:

- 1 **Declare** any conflicts of interest
- 2 **Note** that all agenda papers and their attachments are committee in confidence.

PURPOSE

- To ensure transparency, confidentiality, and compliance with the Council for Connected Care's Confidentiality and Conflicts of Interest Undertaking, members are asked to declare any new conflicts of interest.
- To remind members of the procedures for denoting material that is to be kept confidential.

BACKGROUND

Members of the Council for Connected Care (Council) were sent a Confidentiality and Conflicts of Interest Undertaking prior to the meeting.

SUMMARY OF ISSUES

Conflicts of interest

It is important that the Council and its members are free from perceived or real conflicts of interest with the business before them. The Chair will invite members to state any real or perceived conflicts of interest.

Confidentiality

Members and proxies are asked to note that all agenda papers and their attachments are committee-in-confidence. That is, the contents of these documents cannot be shared or disclosed externally unless otherwise directed by the Chair.



Council for Connected Care

Agenda Item 3: Member introductions

Meeting: 7 June 2023

OFFICIAL

RECOMMENDATIONS

That Members:

1. **Advise** what a connected health system would look like for them, their customers, and the health system.

PURPOSE

The purpose of the item is for members to introduce themselves and share one reflection on what a connected health system would look like.

BACKGROUND

The Australian Digital Health Agency has established the Council for Connected Care to provide strategic advice on matters related to interoperability and support national implementation of the Connecting Australian Health Care – National Healthcare Interoperability Plan.



Council for Connected Care

Agenda Item 4: Digital health directions - Budget 23/24 and the future of digital health

Meeting: 7 June 2023

OFFICIAL

RECOMMENDATIONS

That Members:

- 1 **Note** the digital health directions for Australia and an update on key digital health measures from the 2023-24 Federal Budget.

PURPOSE

The purpose of this item is to provide members with an overview of the digital health directions for Australia and investment in digital health announced in the 2023-24 Federal budget.

BACKGROUND

The 2023-24 Federal Budget takes key steps to address the recommendations of the Strengthening Medicare Taskforce, committing \$5.7 billion to build a stronger Medicare. This includes investing \$951.2 million (over 4 years) to upgrade and modernise My Health Record to make it easier for patients and healthcare providers to securely and safely share health information to improve the care provided and reduce duplication.



Council for Connected Care

Agenda Item 5: Why connect Australian health care?

Meeting: 7 June 2023

OFFICIAL

RECOMMENDATIONS

That Members:

- 1 **Discuss** the current and future state of interoperability in Australia.
- 2 **Advise** how collectively we can achieve the goal of a more connected health system.

PURPOSE

The purpose of this paper is to discuss the current and future state of interoperability in Australia and how collectively we can achieve the goal of a more connected healthcare system. In particular:

- What is working well, and how can we leverage current investments to support the future of connected care?
- What can we learn from international experience?
- In considering the future of connected care, what are the gaps in the current landscape?
- What can we do to bring about a person-centred health and care system that benefits all Australians?
- What do we need governments to do to enable and steward the connected care agenda?
- What do you think the Australian Digital Health Agency needs to focus on in particular?
- What could each member do to contribute to the connected care agenda?

BACKGROUND

In May 2023, Federal Minister for Health the Hon Mark Butler MP signalled the governments ambitions to drive digital transformation across the Australian healthcare system. The announcements in the 2023/24 Federal Budget include funding for initiatives to modernise My Health Record (MHR) infrastructure including standards and interoperability.

In 2019 the then Australian Health Ministers' Advisory Council endorsed a national engagement on the development of a plan that would better connect Australia's healthcare system. The Australian Digital Health Agency (the Agency) began an extensive engagement process in 2020 and concluded with a draft plan in 2022 that was accepted by the Health Chief Executives Forum in March 2023.

The Connecting Australian Health Care – National Healthcare Interoperability Plan (the Interoperability Plan) includes 44 actions across five priority areas. The Agency will steward and coordinate the implementation of the Plan as the lead or joint lead for 40 out of the 44 actions.

SUMMARY OF ISSUES

Why Connected Care?

Connected care empowers consumers who can access their health information and share this information with their healthcare providers supporting them to make more informed clinical decisions.

Connected care supports healthcare providers who can access the right information at the right time to support a person's entire health journey – a person-centred environment where technology supports sharing of information across different organisations, care settings and geographical locations.

Connected care is a health system that supports people to manage their own health and receive well-informed healthcare services based on evidence from diagnostic test results, medication history and decision support.

Connected care is only achievable through a nationally coordinated effort.

Australians enjoy one of the best healthcare systems in the world when compared with comparable OECD countries.¹ A child born today is expected to live somewhere between 81 and just over 85 years.² Survival rates for the top five most common cancers are high due to advances in technology and access to diagnostic imaging and therapies supported through medical and pharmaceutical funding provisions. These are just some of the advances that have improved healthcare in Australia.

In contrast to these advances most people, carers and family members have experienced frustration with the siloed nature of our healthcare system or, worse, suffered harm because key health information was not available when it was needed most. The system itself does not benefit from the vast amounts of data gathered and stored every day, which should be informing the development, management and delivery of health and care services through decision support and artificial intelligence.

The future is bright for consumers, carers, clinicians, and the connected system. It seems at times that Australia is still some way off the future, but we know we can do it. Through the COVID-19 pandemic we saw the evidence mount that working together we can leverage the power of digital health to ensure consumers can access care and medicines even in the most challenging of circumstances. Electronic prescribing became a reality in just twelve short weeks when Australians came together to complete ten years of development work. Telehealth became a routine method of delivering care in general practice and isolated inpatients were brought closer to family through various communication methods.

Consumers took charge of their own healthcare decisions – accessing their COVID-19 test results to inform their actions. Vaccination certificates were downloaded and stored locally for ease of use and access. Clinical imperatives drove these behavioural changes and, in many ways, amplified the need for a connected healthcare system that shares consumer health information safely, securely, and seamlessly.

Digital health is the single greatest opportunity to transform the health system and improve safety and quality, consumer and provider experience and value for money through a connected healthcare system. While there are currently examples of digital innovation and excellence in health care there has not yet been enough national focus or engagement to address the key foundations of interoperability. These foundations include identifiers, standards, privacy, consent, information discoverability and digital literacy.

¹ Australian Institute of Health and Welfare (2022) International health data comparisons, AIHW, Australian Government.

² Australian Bureau of Statistics (2019-2021), Life tables, ABS, Australian Government.

A nationally coordinated effort is required to drive greater sharing of information with consumers and providers, to support the healthcare workforce in delivering safer care. Everyone can benefit from a more connected healthcare system, and everyone has a role to play. This includes a broad range of people, such as consumers, healthcare providers, the health technology sector, peak bodies, national associations, jurisdictions, research organisations and academics, standards organisations, regulatory bodies, primary health networks, and private hospitals.

This is the right time to be advancing digital health in Australia – there is a national interoperability plan for action, momentum generated through the pandemic, growing demand from consumers and healthcare providers for change and access to key platforms and programs that support connectivity and information sharing. The 2023-24 Federal Budget investment in the Agency and MHR to support the growth and modernisation of Australia’s digital health system highlights the commitment of government. This will improve the coordination of care, health outcomes for individuals through better decision-making support, and ease pressure on the health workforce. A pathway to digital connectivity is now possible which will benefit all Australians and improve person-centred care.

The future

The future of healthcare in Australia must be person-centred, data driven and thrive on shared healthcare information that is available at the point of care. It must deliver services that address healthcare consumer needs at times and in places that are convenient to the consumer. The Connecting Australian Health Care – National Healthcare Interoperability Plan (the Interoperability Plan) is a blueprint of 44 actions that will direct Australia towards the connected healthcare system of the future.

A connected care system will support people across the country, from all walks of life. It will put Australians even more fully at the centre of the healthcare system by improving the sector’s ability to share information and for the consumer to control that information for their own benefit. It will also address inequality, with a national push towards ensuring that Australians of all ages, locations, and cultural backgrounds and those with disabilities, are supported to access healthcare and health information through digital health initiatives that meet their needs.

Of the many possible examples, the following illustrate how the future could look:

- Identity processes will be consistent, secure and the same across the healthcare continuum.
- Rural and remote health services and consumers will have access to a wider range of specialties and acute services without having to leave their home or hometown – an advance known now to have positive effects on the consumer and their family members.
- MyMedicare will support a stronger relationship between patients and their primary care teams. Patients will be able to enrol with a general practice registered with MyMedicare, get better continuity of care and easier access to telehealth consultations.
- The system will benefit from population level initiatives such as electronic decision support derived from local health data, prescribing habits, and Australian guidelines.
- Hospital and emergency department visits will be reduced as consumers with chronic conditions become better able to manage their health through deviations from their baseline, where health alerts are targeted and adherence plans are tailored to suit individual lifestyles.
- Clinicians will inform their clinical decision making through access to near-time clinical data recorded by other providers elsewhere in the system as well as through contact with the consumer – seeking additional information and through physical examination when appropriate.
- Australians will book their healthcare appointments using a simplified interface that allows them to create profiles with their healthcare provider. The healthcare provider will create a summary of their encounter automatically and it will be stored in a location of the person’s choosing for access

by other healthcare providers. Payment and follow up appointments will not require interaction with administration staff. Results from diagnostic investigations or monitoring will be shared as the result is known with appropriate supporting information and context to enable the consumer to decide on a management plan of their choosing.

- Health data will be entered once only into a health record and curated thereafter as it moves with the consumer throughout their life and their various touch points with the healthcare system. The availability of consumer health information will help consumers to meet their health goals and choose providers and interventions that best suit their preferences. This will be achieved through partnering with clinicians and engaging in well informed consent processes.
- Technologies such as artificial intelligence and sensor technologies will lead to more personalised treatment and care and this data rich environment will also provide improved data analytics to inform self-care, clinical decision-making, public health policy and health research.
- Misadventure during hospital stays will fall, medication misadventures will be less likely and falls management will be proactively managed using data lifted directly from wearables.
- Digital health will continue to establish the foundations for an economical sustainable healthcare system that constantly improves the safety and quality of healthcare in Australia and is cost effective.

Connecting care to support older Australians

80 per cent of Australians aged 65 and over are estimated to have one or more chronic diseases.³ Chronic illnesses are a strain on healthcare costs. With Australia's ageing population an increased number of chronic illnesses is inevitable and therefore healthcare costs will rise. A connected healthcare system will help improve safety and quality of care and reduce costs by avoiding duplication of procedures and tests through accessing health information where and when it is needed. Through wearables and access to real time data, health episodes can be prevented by providing automated observations and results to their healthcare provider and enabling older Australians to be cared for in their own homes.

Connected care for families

A connected healthcare system will enable Australian families to have access to healthcare data from when a baby is born. This could be through the ability to generate an individual healthcare identifier (IHI) for a newborn as close as possible to birth. This will enable the more efficient digital capture and sharing of critical health information such as birth details, newborn health checks, child health check information, immunisations and development milestones with parents and healthcare providers, including through the MHR and through future state and territory digital baby books.

Connecting care and equity of access

A connected healthcare system is a key enabler for improving access to services and delivering improved health outcomes for Australians living in rural and remote areas, including Aboriginal and Torres Strait Islander peoples. A connected healthcare system will enable seamless sharing of high-quality data with the right people at the right time, to support positive health outcomes and help 'close the gap' in health outcomes between Aboriginal and Torres Strait Islander and non-Indigenous Australians. All Australians of all ages, locations and cultural backgrounds will be supported to access healthcare through digital health approaches that meet their needs.

³ Australian Institute of Health and Welfare (2021) Older Australians, AIHW, Australian Government.

Where are we now?

Australia's complex mix of service providers from the public and private health sectors with multiple funding streams has contributed to siloed health information systems and incompatible data formats, standards, and terminologies across information systems. However, healthcare models are changing from episodic, transactional, provider-centric care models to preventive, personalised and consumer centred care models. Digital health solutions are increasingly being used to support "anywhere, anytime, anyhow" models of service provision.

A recent survey of almost 3,000 health care professionals⁴ working in hospital settings, community pharmacy, general practice, allied health, specialist clinics and aged care organisations found that two-thirds of respondents thought that digital systems and automation were gaining momentum. Digital momentum was strongest for general practice and community pharmacy (less so among allied health). Time saving was the key perceived benefit of interoperability while lack of use by healthcare providers was the key perceived barrier to interoperability.

The Interoperability Plan documents the current reality that consumers experience when they interact with the health care system. It shows, for example, how clinicians are unable to fully benefit from health data that exist as it is frequently siloed and in formats that cannot readily be shared. Poor access to consumer health information contributes to harm, expense, and dissatisfaction for both the consumer and the clinicians providing care.

The foundations of a connected healthcare system exist in Australia already in the form of standardised terminologies, unique health identifiers, national health services directories, clinical information system standards and My Health Record. The pieces of the interoperability puzzle are steadily connecting, ready for use in the form of interoperability standards such as Fast Healthcare Interoperability Resources (FHIR) and initiatives such as Provider Connect Australia, e-referrals, and secure messaging. The missing piece is the glue that can connect all these innovations and opportunities. The glue is building on the digital health infrastructure and investment that exists and collaboration between government, healthcare executives, software vendors, healthcare providers and consumers to make the decisions required to forge ahead.

Barriers and challenges

Several barriers and challenges need to be addressed to achieve mature interoperability in Australia such as:

- the absence of a nationally agreed digital identifier for Australians to identify who they are securely and prove who they are once, when accessing a variety of government services online
- limited use of national healthcare identifiers and limits placed by current legislation on the use of healthcare identifiers by community care and administrative organisations
- the absence of a national governance system for endorsing, adopting, and developing information-sharing standards, and maintaining and evolving these standards
- the absence of nationally agreed information-sharing structures (for example, HL7 v2, HL7 CDA, HL7 FHIR[®] and IHE standards)⁵ and agreed profiles within those structures
- difficulty in discovering what information health services have about individuals beyond what is available in the My Health Record system and within an individual organisation's system
- lack of trust that systems exchanging health information are secure

⁴ Australian Digital Health Agency (2022), Interoperability Benchmark Survey, Australian Digital Health Agency, Canberra.

⁵ These terms are Health Level 7 version 2 (HL7 v2), Clinical Document Architecture (CDA), Fast Healthcare Interoperability Resources (FHIR[®]), and Integrating the Healthcare Enterprise (IHE) standards.

- legislative, policy and privacy issues in relation to access to data and cross jurisdictional sharing of health data
- lack of clarity among healthcare providers about their professional and legal obligations in relation to handling and sharing health information
- commercial incentives for vendors to use proprietary standards or different standards rather than nationally consistent standards and terminologies
- limited use to date of policy drivers (legislative, financial) to encourage sector-wide implementation of interoperable solutions and standards
- the cost of replacing or upgrading legacy systems to provide greater interoperability
- differing opportunities or abilities to use the technology required to draw fully on the benefits of digital information
- varying degrees of digital literacy among consumers and healthcare providers
- the additional challenges in regional, rural and remote settings due to historical gaps in digital connectivity and technology
- health departments are at different stages of their digital health implementation journey.

National strategies

Interoperability has been identified as a key priority in several national strategies and reform agendas across Australia, including those outlined below.

Modernising Australia's ID system

Data and Digital Ministers are working to deliver an easy, voluntary and secure way for all Australians to prove who they are once when accessing government services online and to support the broader use of digital identifiers and credentials across the economy, aligning with appropriate international standards. Digital inclusion of First Nations people, women and those of diverse backgrounds is another priority area.

Strengthening Medicare

The Australian Government's Strengthening Medicare Taskforce report sets out a recommended pathway for significant reforms to strengthening the Medicare system and rebuilding general practice. Patient centred care is central to the recommendations of the report, supported by an expansion of multidisciplinary care as the key to managing the health of an older population with more complex and chronic disease.

The 2023-24 Federal Budget takes key steps to address the recommendations of the Strengthening Medicare Taskforce, committing \$5.7 billion to build a stronger Medicare. This includes investing \$951.2 million (over 4 years) to upgrade and modernise My Health Record to make it easier for patients and healthcare providers to securely and safely share health information to improve the care provided and reduce duplication.

National Health Reform Agreement

The 2020–25 National Health Reform Agreement nominates increased use of data as one of its reform streams. The aim is to achieve comprehensive access, usage and sharing of health data while maintaining data security and preserving the privacy of individuals. Another reform stream is to improve interfaces between health, disability and aged care systems.

National Digital Health Strategy

Building on the achievements of the previous National Digital Health Strategy released in 2017, the next phase of digital transformation is about driving information sharing and advancing real time data exchange to make information available at the right time to inform coordinated and multidisciplinary healthcare. The new strategy places people at the centre of a modern, connected and digitally enabled healthcare system and emphasises that digital health solutions must be developed through partnerships between industry, technology vendors, healthcare providers, researchers, governments and consumers.

Response to the Royal Commission into Aged Care Quality and Safety

In its response to the final report of the Royal Commission into Aged Care Quality and Safety, the Australian Government accepted recommendations on universal adoption of digital technology and the My Health Record system, the development of an integrated system for the long-term support and care of older people and improved data on the interaction between health and aged care.

New national plan for action

The Interoperability Plan is Australia's first nationally agreed and coordinated pathway to a more connected Australian healthcare system. The Interoperability Plan was developed following extensive consultations over more than two years with over 150 stakeholders and includes 10 principles, five priority areas and 44 actions to progress over the next five years.

Collaborative work has commenced on actions within each of the priority areas of Identifiers, Standards, Information Sharing, Innovation, Benefits and Maturity. These include:

- the development of a Healthcare Identifiers Roadmap
- a National Digital Health Standards Catalogue
- local adoption of FHIR training materials (to address a national skills shortage)
- innovation challenges and "connectathons"
- formal agreements between standards development organisations
- the development of procurement guidelines
- delivery of the National Digital Health Capability Action Plan that presents priority actions to effectively build digital health capability across the health workforce
- a digital health maturity model; and
- an interoperability survey.

As set out earlier, the ideal future state is a more connected healthcare system that conveniently and seamlessly shares high-quality data with the right people at the right time to support safe, secure, efficient, quality care. There are several dependencies to ensure this can occur including:

Identity

An accessible, user-friendly, highly trusted, and secure identifier will deliver more proactive and personalised services, as well as reducing errors and fraud across government services. Systems use health identifiers to ensure the right data about the right person is entered into a health record when two records are linked with the purpose of sharing consumer health information. It is necessary to ensure the clinician and organisation are also accurately identified. Healthcare identifiers are fundamental to the discovery, access and sharing of information. The ideal future state is where:

- national healthcare identifiers are readily available and universally used across health and aged care to support information sharing by accurately identifying healthcare recipients, providers and organisations involved in an exchange
- individuals use identifiers to control their information, manage their privacy and receive better and safer care
- the National Health Services Directory (NHSD) is adopted for national digital health programs to ensure comprehensive, consolidated, accurate and up-to-date healthcare provider and service information
- healthcare provider organisations maintain information about their services and healthcare providers in the NHSD, using information brokerage platform Provider Connect Australia. This will enable healthcare services to provide consistent, up to date information in one location that is accessible across the health eco system to providers and consumers when they need it.

Standards

To seamlessly exchange or access health information and ensure consistent understanding it is essential to have agreed digital health standards, specifications and terminology that are technology agnostic, widely adopted and implemented in line with national conformance rules. The ideal future state is where:

- interoperability standards and specifications are co-designed, open source and non-proprietary
- international standards are adopted where possible
- stakeholders easily and regularly access a well-maintained catalogue that contains a list of endorsed and recommended standards and specifications for digital health
- agreed Application Programming Interfaces are accepted as the key technical structure for interoperability in Australia and are used for health information exchanges across the care continuum
- the terminologies used to describe health care and the classifications used to fund health care are compatible
- all systems that integrate with national health systems and services adhere to conformance rules and are reassessed when software is enhanced.

Information sharing

Sharing information requires discoverability (knowing that a piece of information exists, who it is about and where it is located) and authorisation to access and share it. The ideal future state is where:

- information flows freely and securely across state and territory borders and aligns with privacy, legislative and consent requirements
- individuals understand how their information is used and how to manage access to it and are confident in its uses
- when new information about an individual is created the publisher of that information makes the information discoverable
- digital consent management gives individuals user-friendly digital methods to provide or revoke their consent and to identify all instances of access to their health information that breach their privacy preferences

- each organisation holding personal health information uses a single common agreement that stipulates the terms and conditions for sharing and acquiring information from other organisations
- consistent legislation across jurisdictions supports information sharing
- information is readily available through a service catalogue so that developers and users can innovate, expand capabilities and services and support national interoperability.

Digital inclusion and literacy

Digital literacy is essential for full participation in digital health applications - empowering individuals to share, access and engage with technologies as part of their own health care and wellbeing journey and to realise the benefits of digital technology in an equitable way.

The ideal future state is where:

- the health workforce is trained in understanding the importance of interoperability and its practical application to improve healthcare delivery and integration
- all Australians have the resources available and opportunities to improve their digital skills and participate in the benefits of digital health.

Discussion – the journey ahead

Leveraging existing work

Over the past decade a huge amount of work has occurred across Australia and internationally to build a strong foundation for connected care. From the perspective of Council members:

- What is working well, and how can we leverage current investments to support the future of connected care?
- What can we learn from international experience?
- What do we need governments to do to enable and steward the connected care agenda?

Innovation and opportunity

Council members bring with them a rich tapestry of experience and ideas.

- In considering the future of connected care, what are the gaps in the current landscape?
- What can we do to bring about a person-centred health and care system that benefits all Australians?
- What do you think the Australian Digital Health Agency needs to focus on in particular?
- What could each member do to contribute to the connected care agenda?

ATTACHMENTS

Attachment A: Connecting Australian Health Care – National Healthcare Interoperability Plan

Attachment B: Interoperability Glossary



Council for Connected Care

Agenda Item 6: Council workplan 23/24

Meeting: 7 June 2023

OFFICIAL

RECOMMENDATIONS

That Members:

- 1 **DISCUSS** the proposed 2023-23 Council for Connected Care (Council) workplan at [Attachment A](#).

PURPOSE

The purpose of this paper is to discuss agenda topics for Council meetings in 2023-24.

BACKGROUND

The Council has been established to:

- identify opportunities to accelerate interoperability in various parts of the health system and ways to harness these opportunities
- facilitate and support the implementation of the Interoperability Plan
- promote and garner support for digital health initiatives that drive connected health care
- identify barriers to interoperability and ways to overcome them.

SUMMARY OF ISSUES

There are many examples of work that has been undertaken to support interoperability in Australian health care. Leveraging these experiences can help to inform the future of connected care.

A recent example is the electronic prescribing (ePrescribing) initiative where a defined set of information is shared through national infrastructure in a defined way and is accessed by appropriately authorised providers with express consumer consent. This project demonstrates that collaboration, coupled with a commitment can bring about meaningful change for the benefit of people across Australia.

Is this a model that can be used repeatedly to create a fully interoperable ecosystem or is it limited to this setting? What elements of this initiative can be adapted to other purposes? What can be learned from the success of ePrescribing?

The Council will meet on four occasions over the coming year. Discussion will focus on how members and the organisations they represent can work together to bring about real, meaningful change.

There are several focus areas identified in Connecting Australian Health Care – National Healthcare Interoperability Plan (the Interoperability Plan) that the Council could consider during 2023-24: identity, standards, information sharing, innovation, and benefits.

Proposed meeting topics with problem statements, current and future states, current initiatives, and key questions are provided at [Attachment A](#) relating to identity, information sharing and standards.

Questions that members could consider include:

- Are these the correct themes, are there any missing?
- What is the most logical sequence for discussion regarding the themes?
- Are there other factors that may influence optimal timing of the Council's discussions for a given theme?
- What work is currently underway that will inform the discussion more broadly?
- What enablers exist that we can leverage?
- What are the barriers that need to be addressed as a priority?

Attachment A: Proposed 2023-24 Council for Connected Care meeting topics



Identity

An accessible, user-friendly, highly trusted, and secure identity solution will deliver more proactive and personalised services, as well as reducing errors and fraud. Systems use health identifiers to ensure the right data about the right person is entered into a health record when two records are linked with the purpose of sharing consumer health information. It is necessary to ensure the clinician and organisation are also accurately identified.

Problem Statement: Identity is managed in a varied way across the healthcare system and there is no agreed source of truth that accurately identifies healthcare services and providers.

Themes	Current state	Future state (milestones)	Current initiatives	Key questions
Healthcare Identifiers (HI), health service directories, digital identity (ID)	<p>Australia’s current identity system has evolved in an ad hoc way, with multiple players, across the Commonwealth, states and territories and the private sector, issuing and relying on identity documents. There is a proliferation of identity credentials and inconsistent quality when it comes to proving identity and this means we are often proving who we are using documents such as birth certificates, driver licences and Medicare cards that were not created primarily for identity verification.</p> <p>It is critical that identity is established for all participants in health care to</p>	<ul style="list-style-type: none"> Australians are issued a digital ID that is efficient, secure and a reliable means for proving identity – to facilitate seamless government service delivery and broader economic activity. Australians are issued a HI at birth, and it is used throughout life in their interactions with the healthcare system. The HI will enable seamless sharing of health information with consent and build a complete health record. HI will be as ubiquitous as Medicare 	<ul style="list-style-type: none"> The Data and Digital Ministers Meeting on the National Digital ID System Health Delivery Modernisation Program including the HI Framework Project (HI Act legislative review) Response to the 2019 Australian Health Ministers’ Advisory Council review of the National Health Services Directory (NHSD) Rollout of Provider Connect Australia The Provider Digital Access (PRODA) that allows individual 	<ul style="list-style-type: none"> How can point of care collection of HI be promoted and supported? Ubiquity is a challenging target – what can Australia do to get to a point where every Australian uses their HI? Systems often learn from each other- without an exemplar site how can we encourage uptake of HI and use it to share information?

	<p>ensure the right people have the right access to systems and records and that data is safely recorded in the right record.</p> <p>The Healthcare Identifiers (HI) Framework and the HI Service we have today reflect the public attitudes and expectations on information sharing and digital services at the time they were established in 2010. There is limited use of national healthcare identifiers and limits placed by current legislation on the use of healthcare identifiers by community care and administrative organisations. It is now critical for Australia to prepare for increased use of digital health identifiers to enable a nationally connected healthcare environment.</p>	<p>numbers and the two numbers will be intrinsically linked.</p> <ul style="list-style-type: none"> • Professional practice standards will require all healthcare providers to ensure that their Healthcare Provider Identifier – Individual (HPI-I) is available in clinical information systems and attached to notes, records and orders made in a system. • Management of identifiers and associated artefacts (such as digital certificates) is simple, streamlined and effective, making it harder to not use them than to use them. • Individuals use identifiers to control their information, manage their privacy and receive better and safer care. • The National Health Services Directory (NHSD) is adopted for national digital health programs to ensure comprehensive, consolidated, accurate and up-to-date healthcare provider and service information. • Healthcare provider organisations maintain information about their 	<p>healthcare providers and healthcare provider organisations to securely authenticate and access online provider services across all government sectors</p> <ul style="list-style-type: none"> • Real Time Prescription Monitoring • Birth of a Child Pilot • Unique Device Identifier (UDI) Framework for Australian health service organisations (UDI4H) • Australian Commission on Safety and Quality in Health Care’s minimum requirements for health service organisation compliance with Actions 1.17 and 1.18 of the National Safety and Quality Health Service (NSQHS) Standards relating to implementing the My Health Record System (Advisory AS18/11), which includes the use of national patient and provider identifiers. • The Australian Digital Health Agency’s Business to Government (B2G) work in conformance and advocating for the use of HI in the Department of Health and Aged Care systems 	
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		<p>services and healthcare providers in the NHSD, using Provider Connect Australia.</p> <ul style="list-style-type: none">• Tracking and tracing of medical devices including those that have been implanted in patients if used throughout healthcare and supply chains. This will allow doctors to notify patients quickly if there is a medical device safety issue.	<ul style="list-style-type: none">• MyGP for the voluntary patient registration program• The National One Stop Shop for health-related human research.	
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Information Sharing

Information sharing refers to sending, receiving, discovering, and accessing information. It requires knowing that a piece of information exists, who it is about, where it is located, how to access it, and whether there is authorisation to share it.

Problem Statement: Information is not discoverable and there are technical and cultural impediments to sharing information, including a lack of confidence in privacy and consent protection.

Themes	Current state	Future state (milestones)	Current initiatives	Key questions
Discoverability, privacy, and authorisation to access and share information	Health information is often not shared which leads to repeated requests and procedures and decisions made without access to all information. When information is shared, it is commonly faxed or transmitted by hand. This limits healthcare providers to information within their organisation’s clinical system and the My Health Record system. While there are strong privacy provisions in federal, state and territory privacy laws, these are not well understood or translated for the health sector. Consumers expect to have access to their health information and be in control of who is looking at this information, but this is not always the case.	<ul style="list-style-type: none"> Individuals understand how their information is used and how to manage access to it and are confident in its uses. Digital consent management gives individuals user-friendly digital methods to provide or revoke their consent and to identify all instances of access to their health information that breaches their privacy preferences. When new information about an individual is created, the publisher of that information makes the information discoverable. Each organisation holding personal health information uses a single common agreement that stipulates the terms and 	<ul style="list-style-type: none"> National Authentication Service for Health (NASH) that enables healthcare providers and supporting organisations to securely access, encrypt and share health information. Enhanced functionality of the My Health Record system including: <ul style="list-style-type: none"> Aged Care Transfer Summary (ACTS) to summarise a residential aged care facility resident’s health information to support clinical handover of care to a hospital or another residential aged care facility. Web portals and mobile apps to enable the seamless exchange of information across the healthcare system. 	<ul style="list-style-type: none"> What is good practice in co-designing options that enable consumers to manage their preferences around how their information is accessed and shared? What are some effective strategies that will build consumer and healthcare provider confidence in sharing health information? Aside from financial incentives, what is the most compelling reason or value proposition for healthcare providers to improve how they share health information?

		<p>conditions for sharing and acquiring information from other organisations.</p> <ul style="list-style-type: none"> Information flows freely and securely across state and territory borders, and aligns with privacy, legislative and consent requirements. Information is readily available through a service catalogue so developers and users can innovate, expand capabilities and services, and support national interoperability. 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Health Application Programming Interfaces (API Gateway) service to provide a single point of access to digital health systems and services across the Australian digital health ecosystem (where appropriate). Digital technology enhancements to aged care in response to the Aged Care Royal Commission recommendation that every approved aged care provider use a digital care management system and integrate this with the My Health Record system. Department of Health and Aged Care’s consultation on the use of primary health care data and electronic clinical decision support (eCDS). National Approach to Genomic Information Management (NAGIM) Blueprint that describes principles to guide decision-making on the responsible collection, storage, use and management of genomic data. 	
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			<ul style="list-style-type: none">• South Western Sydney Primary Health Network’s integrated real-time active data (iRAD) project that enables clinicians to access and share critical patient data between hospitals, general practice and other connected healthcare professionals.• Secure exchange of data between WA Primary Health Alliance (WAPHA), GPs and WA Health.	
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Standards

Standards provide a common language and a common set of expectations that underpin the unambiguous exchange of information between systems and/or devices. Effective interoperability requires all healthcare participants to agree upon certain rules and policies to exchange information. Standards need to be communicated, promoted, maintained, and updated to work effectively as a system.

Problem Statement: Limited uptake and inconsistent use of standards, and the lack of conformance rules and assessments, results in inconsistent digital health solution implementations.

Themes	Current state	Future state (milestones)	Current initiatives	Key questions
Interoperability Standards, Conformance	<p>Australia has no centralised approach to using standards and the adoption of standards has varied depending on the strength of incentives and mandates. This leads to a proliferating number of standards, which inhibits information sharing and integration, and leads to a lack of interoperability.</p> <p>Not all existing national infrastructure is supported by conformance rules and assessments which leads to inconsistent implementations that can affect interoperability.</p>	<ul style="list-style-type: none"> • Interoperability standards and specifications are co-designed, open source and non-proprietary. • International standards are adopted where possible. • Stakeholders easily and regularly access a well-maintained standards catalogue that contains a list of endorsed and recommended standards and specifications for digital health. • Agreed Application Programming Interfaces (APIs) are accepted as the key technical structure for interoperability in Australia and are used for health information exchanges across the care continuum. 	<ul style="list-style-type: none"> • The Australian Medicines Terminology (AMT) and the Australian extension of SNOMED CT (SNOMED CT-AU) • The National Clinical Terminology Service (NCTS) that contains localised HL7 FHIR® resources (Fast Healthcare Interoperability Resources) and SNOMED CT-AU (including the AMT) which is maintained and released monthly • The Metadata Online Registry (METEOR) for national metadata standards for health, housing and community services statistics and information • National Secure Messaging Network 	<ul style="list-style-type: none"> • What are the most appropriate and effective policy levers to address the limited uptake and inconsistent use of interoperability standards in Australia? • Does the Council agree to establish a sub-committee to develop a minimum set of interoperability standards for national use? • What recommendations does the Council have to enhance industry collaboration toward the consistent adoption of interoperability standards in Australia? • Which standards development approaches or standards adoption

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		<ul style="list-style-type: none">• There is no incompatibility between the terminologies used to describe health care and the classifications used to fund health care.• All systems that integrate with national health systems and services adhere to conformance rules and are reassessed when software is enhanced.	<ul style="list-style-type: none">• National Primary Health Care Data Asset project• Global Digital Health Partnership• Memorandum of Understanding between the Australian Digital Health Agency (Agency) and HL7 Australia• Agency projects including:<ul style="list-style-type: none">○ Digital Health Standards Catalogue○ Procurement Guidelines to harmonise procurement and use of standards based on best-practice approaches to interoperability requirements for information and communications technology system procurement.○ Clinical Information Standards in Residential Aged Care Facilities○ Aged Care Transfer Summary○ FHIR Industry Training○ SMART on FHIR Project○ Connecting Care Program○ Pregnancy and Child Digital Health Solutions	<p>approaches have been successful overseas?</p>
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Council for Connected Care

Agenda Item 7: How can standards drive connected care?

Meeting: 7 June 2023

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RECOMMENDATIONS

That Members:

- 1 **Note** the role standards play in achieving a connected healthcare system
- 2 **Note** the progress of the Digital Health and Aged Care Standards Program work plan
- 3 **Advise** how collectively we can engage with the broader digital health ecosystem to educate and promote the importance of digital health standards as a key pillar to achieve interoperability.

PURPOSE

The purpose of this paper is to provide members with an understanding of digital health standards and an overview of the Digital Health and Aged Care Standards Program. The paper is intended to support a broad discussion amongst members on the need to increase use of digital health standards.

BACKGROUND

Standards are ubiquitous in contemporary life – from power points and plugs on appliances in our homes to how contemporary banking operates, standards play a crucial role in ensuring our safety, optimising reusability and reducing waste because of incompatibilities that arise during design. The earliest standards emerged from the building industry with the formation in Britain in 1901 of the Engineering Standards Committee. The lack of standards then was proving to be a costly exercise as companies adopted their own standards making trade difficult. The community-based development process used then remains the same in spirit today though technology has improved collaboration and sped up the process somewhat.

In 2023 digital health standards are required to ensure data is captured in a structured and standardised manner so that it can be shared from one system to another retaining its meaning entirely and in such a way as to protect the consumer and give confidence to the receiving clinician that the information can be relied upon. The standards community is a dedicated workforce of volunteers who give their time to make contributions to the initial development of new standards, evaluating implementation of existing standards and contributing to the discussion that permits a standard to mature over time. This community builds the standards that are the foundation of interoperability and consequently connected care.

The Connecting Australian Health Care – National Healthcare Interoperability Plan (the Interoperability Plan) includes 44 actions across five priority areas. Standards is one of the five priority areas. The Digital Health and Aged Care Standards Program drives interoperability through leadership, coordination, and

orchestration of standards. The purpose of the program is to educate, uplift technical capability and promote the consistent use of standards as a key driver to achieve connected care.

SUMMARY OF ISSUES

Why are standards so important?

Standards are a key foundation for interoperability. Without standards interoperability is not possible. Standards allow information to flow seamlessly between people, organisations, and systems. Standards also provide the mechanism for information to be used as intended and in context within source systems and with data held by other systems.

Providers, organisations and consumers need a unified understanding of patient information, care provided, and quality, consistency and accuracy of information recorded in clinical information systems. Better-connected healthcare is about supporting the exchange of high-quality data between healthcare providers and the systems they use. By bringing together patient information from multiple, trusted sources, healthcare providers and patients will have greater visibility of accurate information that leads to better decisions which, in turn, leads to better outcomes.

What are digital health standards?

A digital health standard is a formal document developed by an accredited standards development organisation that has attained the consensus of experts. A standard may specify the use of required processes, criteria or methodology to improve consumer confidence that a digital health solution is safe and reliable.

A digital health specification describes an explicit set of requirements or design criteria that must be satisfied. Specifications do not require the endorsement of an accredited standards development organisation but may be adopted into a standard by a standards development organisation. Specifications can also support conformance testing.

They cover a variety of subjects, including consumer products and services, the environment, construction, energy and water utilities, and more.

What are the types of digital health standards?

Digital Health Standards can be categorised into several groups including data standards, clinical standards, infrastructure standards and technical standards.

Data standards improve the quality, relevance, consistency, and availability of information about the patient. Clinical standards describe the care patients should be offered by health professionals and health services for a specific clinical condition or defined clinical pathway in line with current best evidence.

Data and clinical standards guide best practice care and are used to create a standardised approach to how information is consistently collected.

Infrastructure standards guide the physical infrastructure required to support digital health and cover a range of topics such as data cabling, distributed antenna systems (to enable mobile telephones to work in healthcare facilities) and data centre design.

Technical standards provide mechanisms on how information can be exchanged between different systems ensuring the integrity of the information is maintained. These can be categorised by the following:

- Transport & Messaging – message formatting for data exchange between systems
- Terminology & Vocabulary – structured classification systems and code sets for unanimous understanding and interpretation of health concepts

- Security – protection of control over personal or organisational information
- Privacy – protection of data integrity and confidentiality
- Identifiers – unique identification of an individual provider, patient, organisation or device
- Content – organisation and structure of message content (data).

Different categories of standards need to be used together to manage health data complexity. However, development within these categories spans several Australian standards development organisations (SDOs) and regulatory authorities. The development, maintenance and implementation of the different categories of standards require a coordinated approach in order to achieve connected care for Australians.

Who contributes to standardisation and interoperability?

There are many organisations and authorities that contribute to healthcare interoperability and standardisation. The main organisations are listed in Table 1. Though it is not inclusive of all contributors but provides an insight into the complex environment that digital health standardisation needs to consider to achieve interoperability.

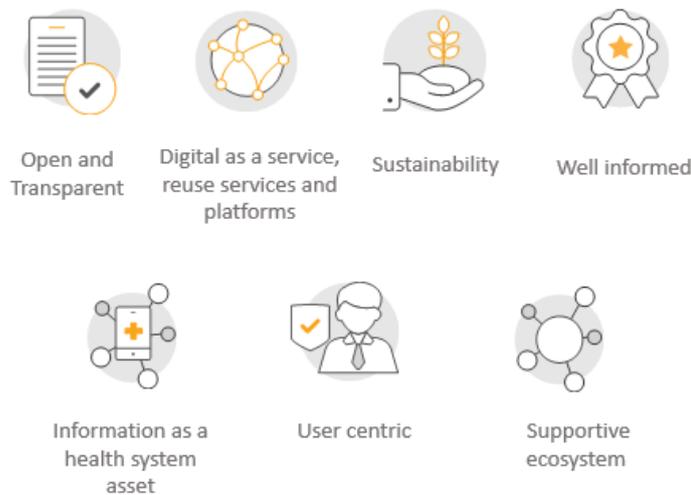
Organisation	Contribution
Australian Digital Health Agency	Leads the interoperability plan and provides leadership and orchestration of digital health standards agenda.
HL7AU	Publishes standards for healthcare information exchange, including HL7 v2 (messaging standards) and HL7 Fast Healthcare Interoperability Resources (FHIR).
Standards Australia	Responsible for developing and maintaining standards across a range of industries, including healthcare.
GS1 Australia	Responsible for developing and maintaining standard across a range of industries including healthcare. GS1 are perhaps best known for their barcode standards to identify products.
CSIRO	Involved in the development of standards for healthcare interoperability and data exchange, including HL7 FHIR and the OpenEHR (Electronic Health Record) standard.
International Health Terminology Standards Development Organisation (IHTSDO)	Responsible for the development and maintenance of the Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)
Australia Institute of Health and Welfare	Work to develop and implement standards for health data collection and exchange, and provide information and insights into healthcare trends and outcomes.
Services Australia	Development and implementation of digital services that are designed to be integrated with other systems.
Australian Commission on Safety and Quality in Health Care	Development, implementation and maintenance of data and clinical standards.
Jurisdictional health departments	Implements digital health solutions for delivery of care in state or territory.
Private health insurance organisations	Support the adoption and use of standardised clinical terminologies and classifications in partnership with healthcare providers and hospitals.

Digital health software industry and vendors.	Develop software for digital health solutions for delivery of care.
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There is not one organisation of authority that does everything. SDOs are formally accredited to develop and publish standards needed for the Australian context using open and transparent governance processes, often adapting internationally developed materials to suit local needs. In addition, several non-accredited organisations have developed technical specifications and developer guides to assist with specific technical challenges. Although technical specifications are not considered formally endorsed standards, they may be adopted into a standard through a SDO governance process.

Digital Health Standards Guiding Principles

The Agency developed a set of Digital Health Standards Guiding Principles as an initial step in guiding and informing an evidence-based approach to standards development and implementation in Australia. The principles were developed in consultation with industry partners and state and territories health departments. The seven principles, which provide a framework for industry participation and outline the vision for future standards development in Australia, are shown below:



Slow standards development will impede interoperability progress

Standards are community driven and are a result of consensus with various parts of the digital health community. The process is to ensure the standards are fit for purpose and a representative of needs for a variety of stakeholders however the process can be timely. The community development process and engagement is a key feature to effective standards development. This is due to the number of organisations and authorities involved in the use and implementation of standards.

Due to the nature of standards development, the process relies on a subgroup of standards experts in Australia and in some cases internationally. The progress of the standard is dependant largely on a volunteer workforce with operational support by SDOs and other organisations. This adds to the timeliness of the development process. Interoperability requires fast development and consistent application to meet the transfer of information and implementation of technology solutions.

Digital Health and Aged Care Standards Program

The Digital Health and Aged Care Standards Program was established in the Agency to support the National Digital Health Strategy and the Interoperability Plan. The objective of the program is to provide leadership and help enhance a dynamic, comprehensive and collaborative digital health standards environment that enables the interoperable healthcare system that Australians expect.

A high-level overview of the program and its deliverables is listed below:

Key deliverables:

- *Lead and coordinate collaboration and engagement with SDO and SDO-like organisations:* Key to standards development and use is the community that help to drive innovation and information sharing. The Agency has developed and maintains a number of relationships with SDOs and SDO-like organisations.
- *Capacity building in the digital health technology sector:* The Agency has partnered with HL7AU, CSIRO and University of Melbourne to deliver several training opportunities to upskill and enhance FHIR capabilities in Australia in 2023. This program of work is expected to continue with the development of advanced courses to support the workforce capability.
- *Development of a national priorities roadmap for Standards use, development and implementation in Australia:* A consolidated view of digital health priorities will provide guidance and enhance collaboration to the digital health sector.
- *Publication of the National Digital Health Standards Catalogue:* a resource built by the Agency to provide access to digital health standards. The utility of the Catalogue will be the presentation of standards in use case or health priorities. The use cases and health priorities section of the Catalogue aims to bring together the range of standards into a package of information for local implementation.
- *Provide a mechanism to enhance digital health standards community engagement:* The Agency will provide a mechanism for identification or growth of active community of practices for digital health standards development and implementation. The aim is to provide a way for interested stakeholders to connect and share insights and experiences.
- *Support the use and development of Aged Care Clinical Information Systems:* The Agency will develop best practice guidelines to support the minimum system requirements for Residential Aged Care Facilities. This work will include supporting resources for the implementation of digital health standards for developers, facilities, and consumers.

Discussion – engagement and promotion

Raising the profile of digital health standards and securing sector-wide commitment and leadership to standards is key.

- What are the Council's recommendations on the most appropriate and effective policy levers to address the limited uptake and inconsistent use of interoperability standards in Australia?
- What recommendations does the Council have to enhance industry collaboration toward the consistent adoption of interoperability standards in Australia?
- What could each member do to contribute to the Standards agenda?



Council for Connected Care

Agenda Item 8: Terms of reference

Meeting: 7 June 2023

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RECOMMENDATIONS

That Members:

- 1 **Endorse** the Council for Connected Care’s Terms of Reference (Attachment A).

PURPOSE

To provide the draft Terms of Reference for the Council for Connected Care and seek member endorsement.

BACKGROUND

The Australian Digital Health Agency has established the Council for Connected Care to provide strategic advice on matters related to interoperability and support national implementation of the Connecting Australian Health Care – National Healthcare Interoperability Plan.

SUMMARY OF ISSUES

Members are asked to review the draft terms of reference at Attachment A and provide endorsement or comment on the Council’s proposed:

- Purpose
- Objectives
- Responsibilities, including member responsibilities and the nomination of proxies
- Governance.

ATTACHMENTS

Attachment A: Draft Terms of Reference



Council for Connected Care Agenda Item 9: Other business

Meeting: 7 June 2023

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RECOMMENDATIONS

That Members:

- 1 **Raise** any other business items for consideration or discussion by the Council.
- 2 **Note** the proposed 2023-24 Council meeting schedule.

SUMMARY OF ISSUES

The proposed 2023-24 Council meetings are:

- 10 August 2023
- 12 October 2023
- February/ March 2024
- June 2024.