



Australian Government

Australian Digital Health Agency

# Connecting Australian Healthcare

## National Healthcare Interoperability Plan 2023-2028

Annual Progress Report  
(July 2023 to June 2024)

Issued 1 August 2024





Australian Government

Australian Digital Health Agency

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# Introduction

The *Connecting Australian Healthcare – National Healthcare Interoperability Plan 2023-2028* ([Interoperability Plan](#)) is Australia's first national plan to deliver a connected healthcare system for more personalised holistic care and better health and wellbeing outcomes for all Australians.

The Interoperability Plan sets out a national vision to share consumer health information in a safe, secure and seamless manner and identifies 44 actions across five priority areas – identity, standards, information sharing (sending, receiving and finding the right information), innovation (initiatives that drive interoperability) and measuring benefits – and policy tools to support interoperability.

The Australian Digital Health Agency (the Agency) has established the [Council for Connected Care](#) (the Council) as the key governance body to provide strategic advice, oversee implementation of the Interoperability Plan, and report on progress.

The Interoperability Plan was published on the Agency's website on 11 July 2023. This is the first annual progress report against the 44 actions in the Interoperability Plan. The timeframes to initiate the 44 actions are categorised as:

- Immediate – within one year (2023-24)
- Ongoing – currently underway (2023-24 to 2027-28)
- Short term – one to three years (2024-25 to 2026-27)
- Medium term – three to five years (2025-26 to 2027-28).



# Council for Connected Care: A message from the Chair

Conjoint Professor Anne Duggan

The Council for Connected Care (Council) was established in June 2023 to provide strategic advice on matters related to connecting care and to support national implementation of the Interoperability Plan.

Over the last 12 months there has been unprecedented support from key stakeholders to work together to better connect Australia's healthcare system and improve health outcomes for Australians. A coalition of the willing is the best way to describe the 33 members of the Council for Connected Care that represent government, healthcare consumers, healthcare providers, the health technology sector, system operators and researchers.

Implementation of the 44 actions to connect Australia's healthcare system has been swift, with 10 out of the 17 actions originally scheduled to commence in the forward years being fast tracked. The Council has also seen progress in each of the five priority areas of the national Interoperability Plan and the delivery of nine actions in the first year of implementation:

- The National Healthcare Identifiers Roadmap 2023-2028 to increase the adoption and use of healthcare identifiers in health and care settings
- The Digital Health Standards Catalogue, a comprehensive resource that provides a single point of access for relevant standards in digital health
- Guiding principles for those developing or implementing digital health standards
- Development of strong partnerships with standards stakeholders including standards development organisations
- A Conformance Framework to ensure digital health products and systems are operated in a manner that aligns with safety, security, and interoperability standards
- Digital Health Procurement Guidelines to provide guidance to healthcare organisations seeking to purchase digital health solutions and harmonise interoperability requirements in ICT procurement
- An assessment of general practice and aged care facility interoperability to identify issues, requirements and potential solutions
- An assessment of digital health maturity models to inform the development of a global maturity model
- A review of policy tools to support and accelerate interoperability.

While these actions are marked 'complete', we recognise that work will continue and progress reported as the Council moves into a new phase of implementation, review, and improvement, working closely with key stakeholders to adopt change.

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# Council for Connected Care: A message from the Chair

Conjoint Professor Anne Duggan

In 2024-25, the Council will support the following national activities to connect Australia's healthcare system:

- Implementing the national roadmaps for healthcare identifiers and a national health information exchange
- Enhancing national provider directory capability
- Strengthening governance and stakeholder engagement for adoption and implementation of national digital health standards
- Improving connections and conformance to national digital health products and services for developers and healthcare providers
- Harmonising legislation to support information sharing
- Establishing an online collaborative community forum
- Building interoperability capability
- Monitoring progress and assessing maturity through the second national interoperability survey and the development of a global maturity model.

All Australians deserve a connected healthcare system where information is shared safely, securely, and seamlessly with the right people at the right time, and I am very pleased to be part of this important and exciting journey.

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# Summary of 2023-24 progress

Key progress towards a better-connected healthcare system for all Australians includes:

- ✓ **Establishing strong governance** – the Council for Connected Care and the Australian Digital Health Standards Advisory Group – and developing a communication and engagement plan for collaboration and transparency.
  - ✓ **Sharing resources in central locations** – the Agency’s Online Interoperability Toolkit and Digital Health Developer Portal – for collaboration and to build the knowledge base.
  - ✓ Publishing **roadmaps and resources** for national coordination and collaboration:
    - National Healthcare Identifiers Roadmap 2023-2028 to increase the adoption and use of healthcare identifiers in health and care settings
    - Guiding principles for those developing or implementing digital health standards
    - Sparked Accelerator program roadmap to deliver Australian core and eRequesting data sets and Fast Health Interoperability Resources (FHIR) implementation guides
    - Digital Health Standards Catalogue, a comprehensive resource that provides a single point of access for relevant standards in digital health
    - Conformance framework to ensure digital health products and systems are operated in a manner that aligns with safety, security, and interoperability standards
    - Draft procurement guidelines to provide guidance to healthcare organisations seeking to purchase digital health solutions and harmonise interoperability requirements in ICT procurement.
  - ✓ Drafting a **National Health Information Exchange** architecture and roadmap in consultation with jurisdictions and key stakeholders and consulting with jurisdictions on a legal and policy framework to support information sharing across care settings and state and territory borders.
  - ✓ Building the **digital health capability** of the workforce through assessment tools and training on FHIR.
  - ✓ **Measuring maturity** through the 2022 Interoperability Benchmark Survey, identifying appropriate maturity models and monitoring progress against the actions in the Interoperability Plan.
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# Status of actions – Annual progress report (2023-2024)

**9 actions completed**

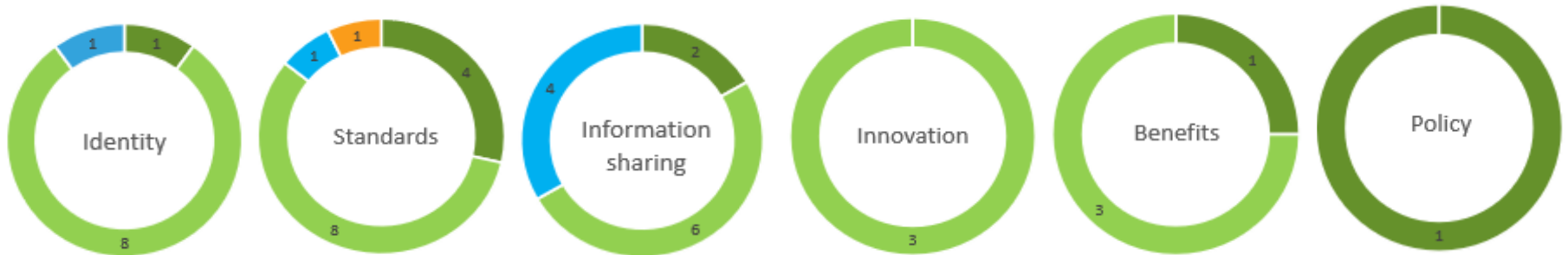
- ✓ Actions 1.3, 2.5, 2.7, 2.9, 2.13, 3.3, 3.5, 5.3, 6.1\*

**28 actions on track**

- ✓ 18 as per schedule (immediate/ongoing actions)
- ✓ 10 ahead of schedule (short/ medium-term actions)

**6 short or medium-term actions will commence in 2024/25 or 2025/26 as per schedule**

**1 action is behind schedule**



■ Completed ■ On track ■ Not commenced (future work) ■ Behind schedule

\* Completed actions: Action 1.3 Healthcare Identifiers Roadmap; Action 2.5 Standards catalogue; Action 2.7 Standards guiding principles; Action 2.9 Engage standards stakeholders; Action 2.13 Develop a conformance framework; Action 3.3 Procurement guidance; Action 3.5 GP and aged care facility interoperability; Action 5.3 Assess digital health maturity models; Action 6.1 Policy review





# Identity



## Identity

Healthcare identifiers support information sharing by accurately identifying individuals, healthcare providers and healthcare provider organisations. This ensures information shared is for the right individual and improves the safety of care provided. It also gives individuals greater control over the level of access they provide to healthcare providers.

This priority area includes 10 actions to leverage the national Healthcare Identifiers Service and the National Health Services Directory:

- 2 actions are immediate (2023-24)
- 4 actions are ongoing (2023-24 to 2027-28)
- 4 actions are short (2024-25 to 2026-27).

## Progress highlights

The Agency has published the National Healthcare Identifiers Roadmap 2023-2028, a strategic plan devised in collaboration with the Department of Health and Aged Care and Services Australia to drive uptake of the Healthcare Identifiers Service. Implementation of several activities in the Roadmap has already commenced relating to identifying legislative reforms and improving data matching and quality.

Over the last 12 months there have been positive discussions between key delivery partners on adopting healthcare identifiers for national digital health initiatives and how existing directories individually and collectively will support a future health information exchange. States and territories and private health organisations have shown commitment to the Healthcare Identifiers Service submitting, where required, transition timeline plans for adopting Healthcare Provider Identifiers – Individuals (HPI-Is).





# Identity progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
<b>1.1 Using healthcare identifiers</b> Jurisdiction health departments, the Agency and Services Australia will adopt and use national healthcare identifiers in future digital health initiatives involving health information sharing.	The Agency Services Australia All Health Departments	Ongoing	On track	<p>Positive discussions have occurred over the first year of the Interoperability Plan, with states and territories and the Commonwealth proactively considering how to build in the use of healthcare identifiers to key programs and in support of digital health initiatives, such as e-Prescribing.</p> <p>The Sparked program, a collaborative effort between government, industry, healthcare peaks, and clinicians is developing the core standards that will support interoperability for the health system, and healthcare identifiers will form a key part of the Australian core standards.</p> <p>Services Australia continues to support and progress work on integrating healthcare identifiers into health systems. This includes working with Allied Health Professions Australia to progress the use and adoption of Healthcare Provider Identifiers for Individuals (HPI-Is) for their 37 member associations, and the My Aged Care – My Health Record Integration Project which is on track for an October 2024 go live.</p>
<b>1.2 Promoting healthcare identifiers</b> Promote the use of individual healthcare identifiers (IHIs), including creating IHIs for newborns as soon as possible after birth.	The Agency Services Australia	Ongoing	On track	Services Australia continues to work with the Birth of a Child program to explore opportunities and approaches to creating Individual Healthcare Identifiers (IHIs) for newborns across jurisdictions and has also commenced work to incorporate the Australian Immunisation Register into the newborn service offering.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Identity progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
<b>1.3 Healthcare Identifiers Roadmap</b> Develop a Healthcare Identifiers Roadmap that includes: <ul style="list-style-type: none"><li>• coordinating the response to recommendations from the 2018 Healthcare Identifiers Act and Service Review and the 2020 review of the My Health Records Act that relate to or affect healthcare identifiers</li><li>• reviewing legislative impediments to the wider uptake of healthcare identifiers in the Healthcare Identifiers Act 2010</li><li>• reporting on healthcare identifier adoption.</li></ul>	The Agency Department of Health and Aged Care	Immediate	Complete	The Agency in collaboration with the Department of Health and Aged Care and Services Australia, published the <a href="#">National Healthcare Identifiers Roadmap 2023-2028</a> in June 2024. The Roadmap includes 20 activities covering: <ul style="list-style-type: none"><li>• Legislation and policy including reforms to the Healthcare Identifiers Act 2010</li><li>• Healthcare Identifiers Service improvements in data matching and data quality</li><li>• Architecture and data standards</li><li>• Operational improvements to governance, directory services development, education and stakeholder communication and engagement.</li></ul>
<b>1.4 Healthcare identifier matching</b> Develop and implement a program of improvements in healthcare identifier matching (especially IHIs), focusing on data quality, user interfaces, service improvements, enhancements and proactive efforts on IHI retrieval.	The Agency Services Australia	Short	On track	The HI Data and Service Enhancements Project was successfully deployed into production on 1 June 2024. This project focussed on improving Individual Healthcare Identifier (IHI) match rates and Aboriginal and Torres Strait Islander peoples matching enhancements and uplift of error messages and responses.  Services Australia and the Agency will work with software developers during 2024-25 to develop conformance requirements and update clinical software to take advantage of these changes.
<b>1.5 Review Healthcare Provider Identifier – Individual (HPI-I) conformance</b> Review conformance requirements for using HPI-Is when uploading documents to the My Health Record system, recognising that providers are at different stages of use of HPI-Is.	The Agency	Short	On track	The Agency has received transition timeline plans from jurisdictions and private health organisations outlining how and when they intend to implement Healthcare Provider Identifiers – Individuals (HPI-Is). A number are on track to be using HPI-Is by the end of this year.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Identity progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
<b>1.6 Develop deeper network structures</b> Develop deeper Healthcare Provider Identifier – Organisation (HPI-O) network structures, including revising published guidance, to support enhancing online HPI-O network registration, and work with vendors to address software limitations.	The Agency Services Australia	Short	Not commenced	This short-term action will be progressed under the Healthcare Identifiers Roadmap.
<b>1.7 Using the National Health Services Directory (NHSD)</b> Use the NHSD as the service directory for digital health programs. Where this is not possible (such as for a specialised directory), jurisdictions will work with Healthdirect Australia and the Agency to support the required flow of information.	All Health Departments	Ongoing	On track	<p>Discovery work continues with an understanding of the different purposes and features of existing directories and how they individually, and collectively, will support the use cases for a future health information exchange (HIE).</p> <p>The MyHealth app, which provides consumers with access to their My Health Record and will provide future functionality to support consumers to proactively engage with their own health care needs and plans, has been integrated with the NHSD. This supports consumers to search for healthcare providers to suit their individual needs.</p>
<b>1.8 Implementing the 2019 National Health Services Directory (NHSD) review</b> Healthdirect, in partnership with the Australian Government Department of Health and Aged Care and state and territory health departments, will implement the work packages developed in response to the 2019 AHMAC NHSD review, which include positioning the NHSD as core national infrastructure.	Healthdirect	Ongoing	On track	Healthdirect has published the NHSD Data Strategy which outlines a roadmap of initiatives for further maturing the NHSD as a data practice and national capability. One-on-one workshop sessions were conducted with all states, territories and the Commonwealth to develop the NHSD's 3-year product roadmap. The NHSD website has been refreshed and a NHSD Developer and Integration Hub launched to support integrators in all stages of the journey, to build and test their integrations with the NHSD FHIR APIs. There have also been engagements with the Department of Health and Aged Care on the HI Framework review project to ensure NHSD use cases are understood and catered for as part of the legislative changes.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Identity progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
1.8 <b>Implementing the 2019 National Health Services Directory (NHSD) review (continued)</b>	Healthdirect	Ongoing	On track	Healthdirect is supporting the NSW Health rollout of their Engage Outpatient project, which enables electronic referrals from GPs into NSW Health outpatient clinics. This solution utilises the NHSD FHIR API to enable GPs to search and address these electronic referrals. Healthdirect is also supporting state and territory trials of enhanced scope of practice in community pharmacies. The NHSD data model was expanded to document more granular pharmacy services to enable consumers to find services relevant to their specific needs (such as UTI diagnosis and prescriptions). Development is complete to transition from XML to FHIR (bulk) integration with the Department of Health Victoria to support discharge summary workflow for Victorian Hospital and Health Services.
1.9 <b>Provider Connect Australia</b> Roll out and support the implementation of Provider Connect Australia.	The Agency	Immediate	On track	As of 20 June 2024, 2,317 healthcare clinics comprising of 4,713 healthcare services have registered to Provider Connect Australia (PCA). This year, the Australian Podiatry Association (APoDA), Health Hunter and the Australasian Association of Practicing Nutritionists (AARPn) onboarded as business partners, bringing the total number registered to 37. The project is continuing to engage with peak bodies, private health insurers, WorkSafe/Workcover providers and healthcare providing organisations to connect to PCA.
1.10 <b>Integrating the NHSD and the Health Provider Directory (HPD)</b> Assess the feasibility of integrating the NHSD and the HPD to reduce duplication and rationalise the national directory infrastructure.	Services Australia	Short	On track	A proposed approach for reducing directory duplication is being progressed through the national health information exchange program of work. Services Australia continues to collaborate with the Agency on current state and is supporting the planned feasibility assessment.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Standards



## Standards

To seamlessly exchange or access health information and ensure consistent understanding, it is essential to have agreed digital health standards, specifications and terminology.

This priority area includes 14 actions to drive effective leadership and a sustainable approach to standards governance:

- 5 actions are immediate (2023-24)
- 4 actions are ongoing (2023-24 to 2027-28)
- 5 actions are short (2024-25 to 2026-27).

## Progress highlights

On 25 June 2025, the Sparked FHIR Accelerator program, a cooperative between the Agency, CSIRO, HL7 Australia and the Department of Health and Aged Care, issued the first release of the Australian Core Data for Interoperability (AUCDI R1). This marks a major first step in enabling the standardised capture and exchange of healthcare data.

The initial version of the Digital Health Standards Catalogue was also published in June 2024. The catalogue aims to consolidate all relevant national and international standards and provide a single source of truth for developers, implementers, and users of digital health solutions to help drive more connected and coordinated healthcare in Australia.

The Agency has also published its Conformance Framework that provides a strategic overview of the purpose and function of conformance and how the Agency develops, operationalises, assesses, and maintains conformance schemes, profiles and artefacts.



# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress
2.1 <b>Terminology in digital health systems</b> Engage with the health technology sector and health departments to enhance digital health systems to integrate national terminologies and classifications natively.	The Agency	Ongoing	Behind schedule	The production release of AMTv4 (Australian Medicines Terminology) has been pushed back to September 2024 to allow for additional testing and to support industry readiness. The CSIRO project team are providing full technical support to implementers who are now tracking well for the September go live date and will continue to provide support through to post go live. The Medicine Authoring Tool is undergoing final rounds of comprehensive testing, with Australia being onboarded with SNOMED International's Managed Service in May 2024. In addition to AMT, the Agency and CSIRO teams have been engaging with aged care organisations, diagnostic industry, Clinical Information System vendors, clinical colleges and healthcare organisations around the adoption of the NCTS, Ontoserver and SNOMED CT.
2.2 <b>Develop specifications and standards</b> Engage with the health sector on the development, selection, use and maintenance of specifications and standards that support the Agency's approved priorities. When required, Agency-developed specifications will be progressed to become standards through the appropriate standards development organisation and their balloting/development processes.	The Agency	Ongoing	On track	<p>The Agency's FHIR implementation guides (IG) are now in a central location on the <a href="#">Developer Portal</a> to increase the visibility of and improve access to these specifications and standards.</p> <p>The Agency has completed the technical work to express its Clinical Digital Architecture (CDA) schema as FHIR logical models, as part of the My Health Record (MHR) Modernisation program. Next steps will include broader socialisation of the work with the Australian implementer's community and beginning to define specific document-based use cases in FHIR for MHR in alignment with the Modernisation program's priority use cases.</p> <p>As one of the organisations supporting the 'Sparked' FHIR Accelerator program, the Agency continues its participation in the Clinical and Technical Design Groups to define HL7 FHIR AU Core and Australian Core Data for Interoperability (AUCDI). The focus for the quarter ahead will be on testing HL7 FHIR AU Core.</p>

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress
2.3	<b>HL7 FHIR® AU usage</b> Develop and expand on HL7 FHIR® AU Base 2 for all Agency and Healthdirect digital health systems and services, including modifications and new systems.	The Agency Healthdirect	Ongoing	On track

The Agency has continued to update its existing FHIR IGs to change their dependency from the HL7 AU Base FHIR IG to the HL7 AU Core FHIR IG, where viable, as part of monthly improvement sprints of work.

There has also been new work launched to produce FHIR IGs with content derived from HL7 AU Core and HL7 AU Base that include the Health Identifiers (HI) Service FHIR IG and the FHIR IG for mobile interactions with the MHR.

Healthdirect has completed:

- the integration with Provider Connect Australia (PCA) to enable search and retrieval of health service details from NHSD into PCA using the NHSD's FHIR API
- the development of a FHIR ingestion pipeline to support the integration of booking providers with one vendor onboarded and two others in progress
- design of FHIR pipeline to support the integration of secure messaging vendors with the NHSD, including changes to the NHSD data model to reflect the correct modelling of FHIR Endpoint resource
- transition of all users of the NHSD FHIR v3 API to the FHIR R4 API.

Work is underway to transition Healthdirect's Service Finder and Symptom Checker products from the NHSD proprietary interface to the FHIR API. This progresses interoperability with the NHSD and enables non-standards based interfaces to be turned off over time.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).





# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress
2.4 <b>International standards participation</b> Support Australian participation in international standards development.	The Agency AIHW	Ongoing	On track	The Agency continues to actively engage with GS1, HL7, IHE and SNOMED-CT internationally through multiple channels and standards development work. Engagement with the Global Digital Health Partnership also provides a valuable opportunity to drive aligned global standards activities across multiple countries and the wider global standards community. Our ongoing participation in Standards Australia committees also enables us to continue our participation with ISO. Expansion of these activities where it will support the Australian digital health agenda will continue to be considered as an ongoing part of the standards program. Work continues to assess additional opportunities to broaden engagement from expert stakeholders across the wider sector.
2.5 <b>Standards catalogue</b> Develop and implement a national digital health standards catalogue as a user-friendly access point for digital health standards.	The Agency	Immediate	Complete	The initial version of the <a href="#">Digital Health Standards Catalogue</a> was published in June 2024 with the support of the Australian Digital Health Standards Advisory Group. Initial functionality and content provide the foundational levels for iterative and ongoing development of curated content to provide use case specific standards catalogues. Further individual standards shall also continue to be added on an ongoing basis to enrich the content available to users. This work will continue as an ongoing element of the National Digital Health Standards Program working in partnership with the sector.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress	
2.6	<b>National Digital Health Standards Program (NDHSP)</b> Implement the NDHSP to develop a dynamic, comprehensive and collaborative digital health standards environment. This program will inform the need for and scope of national governance arrangements for standards.	The Agency	Immediate	On track	All workstreams of the NDHSP have been established. This includes: <ul style="list-style-type: none"><li>• Leading and coordinating collaboration and engagement within the standards community (e.g. establishment of the Australian Digital Health Standards Advisory Group and Jurisdictional Roundtable)</li><li>• Building capacity in the digital health technology sector (e.g. FHIR training)</li><li>• Publishing the initial version of the Digital Health Standards Catalogue and Procurement Guidelines</li><li>• Providing a mechanism for enhancing engagement within the digital health standards community (e.g. development and implementation of a stakeholder engagement plan)</li><li>• Supporting the use and development of Aged Care Clinical Information Systems (e.g. Aged Care CIS recommended minimum system requirements).</li></ul>
2.7	<b>Digital health standards guiding principles</b> Develop and publish a set of national guiding principles for those developing or implementing digital health standards in Australia, in partnership with standards development organisations and the health technology sector.	The Agency	Immediate	Complete	The Agency published national digital health standards guiding principles on its <a href="#">Digital Health Developer Portal</a> in June 2023. The seven principles were developed in consultation with our partners in standards and interoperability.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress
2.8 <b>Standards gap analysis</b> Complete a gap analysis to prioritise the digital health standards that are required most urgently to accelerate the interoperability agenda.	The Agency	Immediate	On track	The most urgent works on local standards development continue within the 'Sparked' program to deliver Australian Core Data for Interoperability (AU CDI) and priority Implementation Guides. Standards Gap analysis continues within related projects including development of the Standards Roadmap, Standards Catalogue and Procurement Guidelines. Tooling proposed to support the Gap Analysis process continues to be refined to ensure ease of application within the sector to support ongoing needs.
2.9 <b>Engage standards stakeholders</b> Develop and maintain strong partnership ties with the health technology sector, standards development organisations and other key standards bodies.	The Agency	Immediate	Complete	<p>Strengthening of partnerships with key Standards Development Organisations are ongoing to ensure partnership agreements are in place. Partnership agreements with HL7 Australia, SNOMED, and Standards Australia remain current, and work is underway with IHE.</p> <p>The Agency has continued to encourage collaboration among standards stakeholders through the Australian Digital Health Standards Advisory Group. The Agency also holds regular meetings with the Medical Software Industry Association (MSIA) and engages with wider stakeholder groups to ensure that Agency work within the National Digital Health Standards Program is well informed and relevant to the wider sector.</p> <p>This work will continue as an ongoing element of the National Digital Health Standards Program working in partnership with the sector.</p>
2.10 <b>Including terminology in datasets</b> Coordinate discussions on expanding minimum datasets to incorporate the use of SNOMED CT-AU, AMT and LOINC for data not currently collected in areas such as medications, adverse reactions, pathology and radiology.	The Agency	Short	On track	The Agency continues to drive this action forward through the Sparked Program. This includes the recommendation of SNOMED CT ValueSets, LOINC ValueSet and other code systems.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Standards progress update

Action	Lead	Timeframe*	Status	2023-24 progress
2.11 <b>National library of terminology mapping</b> Develop a national “library” of resources that provide translation mapping from national terminologies to other popular terminologies.	The Agency	Short	Not commenced	This short-term action will be progressed in the 2024-25 financial year.
2.12 <b>API information exchange</b> Engage with the health technology sector to enhance digital health systems to use HL7 FHIR®, OAuth and OpenID Connect for API information exchanges.	The Agency	Short	On track	An authentication blueprint for health information exchange is being drafted for stakeholder consultation in 2024-25.
2.13 <b>Develop a conformance framework</b> Engage with stakeholders to develop a conformance framework and associated conformance rules for national digital health systems and services.	The Agency	Short	Complete	The Agency has published its <a href="#">Conformance Framework</a> following consultation with government entities, jurisdictions and industry stakeholders. The Conformance Framework provides a strategic overview of the purpose and function of conformance and how the Agency develops, operationalises, assesses, and maintains conformance schemes, profiles and artefacts.
2.14 <b>Standards development cooperative</b> Establish a cooperative of developers working to expedite the development of new digital health standards, with a suitable operating model.	The Agency	Short	On track	On 25 June 2025, Sparked issued the first release of the Australian Core Data for Interoperability (AUCDI R1). This marks a major first step in enabling the standardised capture and exchange of healthcare data. AUCDI R1 has been developed in association with an AU Core FHIR implementation guide (IG).

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Information sharing



## Information sharing

The sharing of information between healthcare providers and consumers requires information to be discoverable and accessible within a framework of trust, safety, consent, privacy and data quality.

This priority area includes 12 actions to increase the safe, secure and seamless sharing of information with the right people at the right time:

- 3 actions are immediate (2023-24)
- 2 actions are ongoing (2023-24 to 2027-28)
- 4 actions are short (2024-25 to 2026-27)
- 3 actions are medium (2025-26 to 2027-28).

## Progress highlights

A draft Health Information Exchange (HIE) Architecture and Roadmap, outlining the steps to the future state HIE environment needed to support connected health care, has been presented to jurisdictions and other key stakeholders and potential delivery partners.

A jurisdictional legal and policy working group was established in May 2024 initiating collaboration on the elements of a framework to support health information sharing. Research has commenced on consumers choice and control over their health data and the role of care teams that will inform the health information sharing framework.

A draft version of the Digital Health Procurement Guidelines was released in June 2024 for consultation. The guidelines aim to harmonise procurement and use of standards, based on best-practice approaches to interoperability requirements for digital health technology procurement.



# Information sharing progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
<b>3.1 Interoperability in procurement</b> The Agency, health departments and Services Australia will specify interoperability requirements in procurement requests where they meet business objectives. This will leverage existing national infrastructure, terminology and standards.	The Agency All Health Departments Services Australia	Ongoing	On track	Work is ongoing with health departments to review current procurement processes and capability. Newly released draft Digital Health Procurement Guidelines will support this activity as the delivery of this tool is completed.
<b>3.2 API Gateway information exchange</b> Promote the use of the API Gateway to support interoperable information exchange, including development of a service catalogue.	The Agency	Ongoing	On track	In 2023-24 the Agency has documented requirements for an Integrated Developer Platform and completed a technical feasibility study to inform the approach to surfacing an API Service Catalogue. This considered the Agency's existing technology stack and identified the need for a new capability, notably a Producer Portal. A conceptual architecture has been approved that outlines the role of the Producer Portal and how this capability supports publishing of the API Service Catalogue and automating this. Further, the Agency has approved stage 1 of the Producer Portal implementation, leveraging an existing use case to establish the solution architecture and approach for implementation.
<b>3.3 Procurement guidance</b> Establish an intergovernmental working group to harmonise procurement and use of standards, based on best-practice approaches to interoperability requirements for information and communications technology system procurement.	The Agency	Immediate	Complete	A draft version of the Digital Health Procurement Guidelines was released in June 2024 as a preview for comment. Development of the guidelines has been informed by the sector, incorporating feedback received in early development process as well as being guided by sector representative via the Procurement Reference Group. Wider consultation is now being undertaken to seek input into ongoing development as the guideline content continues to expand to cover as many technology platforms and procurement processes as possible.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Information sharing progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
3.4 <b>Online interoperability toolkit</b> Develop and maintain an online interoperability toolkit that provides practical guidance, lessons learned, case studies, data dictionaries, terminologies, common specifications, frameworks, and a library of exemplars and reusable components, including implementation guides.	The Agency	Immediate	On track	A framework is being developed to expand the interoperability toolkit that will improve the interoperability journey for software developers, healthcare providers and industry to connect to different national digital health systems. It will also provide access to key information and education materials relating to interoperability.
3.5 <b>GP and aged care facility interoperability</b> Assess the current interoperability between GP and residential aged care facility systems, identifying issues, requirements and potential solutions to resolve issues.	The Agency	Immediate	Complete	The Agency has assessed the interoperability between GP and residential aged care facility systems and made recommendations that will inform future work on CIS information exchange standards pertinent to both aged care and GP systems.
3.6 <b>Consent Management</b> Engage with consumers to investigate options for enabling individuals to grant consent to access all their health information, including in My Health Record. Options will include making it easier to choose which healthcare providers are authorised, and the types of information they can access.	The Agency	Short	On track	An initial review and investigation into consumers attitudes around choice, control and use of their data has been commissioned by the Agency. Discussions have also commenced through the Jurisdictional legal and policy working group to examine how dynamic consent can be achieved within an overarching authorisation framework.
3.7 <b>Research international practice</b> Assess the UK national minimum standards for digital health technologies and similar international policies to inform consultation on Australian approaches.	The Agency	Short	Not commenced	This short-term action will be progressed in the 2024-25 financial year.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).





# Information sharing progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
3.8 <b>Care management network</b> Investigate opportunities to build capability to identify and manage individuals within a consumer's formal and informal care management network.	The Agency	Short	On track	Building on existing research on primary to acute care and care pathways, the Agency is currently undertaking the Care Teams Exploratory Research project across the care sector. This includes consumers and carers, GPs, specialists, allied health professionals and the aged care sector to better understand the role of care teams and where digital implementation could be leveraged to enhance care coordination. This research will build Agency capability through better understanding of care teams and will identify individuals within a consumer's formal and informal care network and ways digital solutions can support all those in a care team.
3.9 <b>Information-sharing model agreement</b> Collaborate with stakeholders on the development of a model agreement to be used by organisations holding personal health information. This will specify the terms and conditions for sharing, discovering and acquiring information from other organisations. It will cover privacy, security, access controls, patient data rights, technical specifications and intellectual property rights.	The Agency	Short	On track	The first meeting of the HIE Jurisdictional Advisory Group (JAG) Legal and Policy Working Group (LPWG), was held on 22 May 2024, initiating collaboration on the elements of a framework to support health information sharing. The LPWG has developed a plan on the foundational elements necessary to implement a national approach to health information sharing. The next LPWG meeting is scheduled for 3 July 2024.
3.10 <b>Publish–subscribe service</b> Develop a business case for a national publish–subscribe service to support actions such as alerts, changes to an individual's health information and notifications of acute episodes. This would be available to individuals, healthcare providers and healthcare provider organisations.	The Agency	Medium	Not commenced	This medium-term action will be progressed in the 2025-26 financial year.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



## Information sharing progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
3.11 <b>Consistent legislative health definitions</b> Collaborate with jurisdictions and key stakeholders to develop consistent definitions to support health information sharing.	The Agency	Medium	Not commenced	This medium-term action will be progressed in the 2025-26 financial year.
3.12 <b>Harmonising legislation</b> Undertake collaborative intergovernmental work on harmonising relevant jurisdiction legislation, drawing on outcomes from Action 3.11.	All Health Departments	Medium	Not commenced	This medium-term action will be progressed in the 2025-26 financial year.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Innovation



## Innovation

Developing innovative digital products and services and building a workforce that can confidently use digital technologies will encourage and make it easier to connect to and derive value from new digitally enabled models of care that place individuals at the centre of their healthcare experience.

This priority area includes 3 actions to drive innovation and digital health capability:

- 1 action is immediate (2023-24)
- 2 actions are ongoing (2023-24 to 2027-28).

### Progress highlights

Work is progressing to deliver the workforce and education program priorities in the National Digital Health Capability Action Plan 2021, investigating the digital health literacy requirements of the current and future health sector workforce and engaging with the Vocational Education and Higher Education sector to prepare students for the workforce.

The Agency has developed an animation on privacy and security, a series of resources to support the adoption of the Healthcare Identifiers Service, and a Library of Connected Care Education Resources that includes links to existing education content. The library will be published on the Interoperability Toolkit on the Agency's website.

Multiple connectathons have been held throughout 2023-24 and will continue across coming months in August and December 2024.



# Innovation progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
4.1 <b>Interoperability innovation challenges</b> Run interoperability innovation challenges and “connectathons” to encourage interoperability.	The Agency	Ongoing	On track	Multiple events have been held throughout 2023-24 and will continue across coming months. An HL7 AU FHIR/Sparked Connectathon was held in Sydney on 21 and 22 March 2024 and future events are planned for August and December.
4.2 <b>Interoperability workforce</b> Implement the National Digital Health Workforce and Education Roadmap to support the workforce required to progress interoperability.	The Agency Australasian Institute of Digital Health	Ongoing	On track	<p>Priority has been given to the digital health literacy requirement of the existing and future health sector workforce in 2023-2024, with projects being undertaken to investigate the skills gaps and tools required to assess the skills gaps of the individual and at the organisational level.</p> <p>Work has been undertaken under the Capability Action Plan (CAP) with the Australasian Institute of Digital Health (AIDH) to investigate enhancements required to the Digital Hub (a workforce assessment tool) to ensure the Digital Hub is fit for purpose for the workforce and education providers to assess people’s future employment pathways and their current skills and education upskilling requirements.</p> <p>The Agency has focused on the future digital health skills and capability development within the Vocational Education and Higher Education sector engaging with TAFE and Universities to pilot programs that prepare students for the workplace.</p>

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



# Innovation progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
4.3	<b>Develop education content</b> Develop education content in partnership with users to increase awareness of interoperability.	The Agency	Immediate	On track

The Agency has developed an animation on privacy and security and a Library of Connected Care Education Resources that includes links to existing education content. The library will be published on the Interoperability Toolkit on the Agency's website.

The Agency has extended its contract for FHIR Fundamentals for Australian Developers training with HL7 Australia, University of Melbourne and CSIRO. The FHIR Training program has enabled the development of 5 FHIR Training Courses which have then been delivered to 680 people across 19 sessions over 2023-24.

The Agency has also created the following resources created to support HI service:

- Digital Health Foundations - Series #1 Healthcare Identifiers and the Healthcare Identifiers Service (HI Service)
- Digital Health Foundations - Series #2 Accessing PRODA & HPOS
- Digital Health Foundations - Series #3 Registering a Seed Organisation with the Healthcare Identifiers Service (HI Service)
- Digital Health Foundations - Series #4 Setting up Access to My Health Record and Electronic Prescriptions.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



## Benefits



### Benefits

Measuring digital health maturity – including the interoperability of the healthcare system – will help identify areas for investment and track progress for continuous improvement.

This priority area includes 4 actions to continuously measure digital health maturity:

- 1 action is immediate (2023-24)
- 2 actions are ongoing (2023-24 to 2027-28)
- 1 action is short (2024-25 to 2026-27).

### Progress highlights

The Council for Connected Care, that governs the Interoperability Plan, met for the fifth time on 2 May 2024 and covered the information sharing priority area. The next meeting is scheduled for 8 August 2024 and will cover the Council's 2023-24 performance review and 2024-25 work priorities.

Planning continues for the next national interoperability survey that will be conducted in 2025. In the interim, a sub-set of Interoperability Benchmark Survey questions are administered on a quarterly basis to monitor change.

The Agency has completed a review of digital maturity assessment frameworks with a focus on models relevant to interoperability. The review will be used to inform work with the Global Digital Health Partnership which has commenced with an initial review of international data maturity assessment tools presented at the Vienna Summit in June 2024.



# Benefits progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress	
5.1	<b>Administer interoperability survey</b> Undertake an interoperability survey of hospital, pharmacy, GP, allied health, specialist and aged care organisations periodically to measure overall progress on interoperability, starting with a baseline survey in 2022.	The Agency	Ongoing	On track	The survey results from the 2022 Interoperability Benchmark Survey can be found on the Agency's <a href="#">website</a> . Planning continues for the next survey to be conducted in early 2025. In the interim, a sub-set of Interoperability Benchmark Survey questions are administered on a quarterly basis to monitor change.
5.2	<b>Publish annual report</b> Publish an annual report on progress of the National Healthcare Interoperability Plan.	The Agency	Ongoing	On track	<p>The Agency has established the Council for Connected Care as the key governance body to provide strategic advice, oversee implementation of the Interoperability Plan and report on progress. The Council met for the fifth time on 2 May 2024. The meeting outcomes can be found on the Council's <a href="#">webpage</a>.</p> <p>This is the first annual report covering progress over the 2023-24 financial year.</p>
5.3	<b>Assess digital health maturity models</b> Collaborate with jurisdictions to assess digital health maturity models.	The Agency	Immediate	Complete	The Agency has undertaken a review of national digital maturity assessments in healthcare, with a focus on models relevant to interoperability. The review was considered by the Council for Connected Care at their 2 May 2024 meeting and will be used to inform Action 5.4.
5.4	<b>GDHP interoperability maturity model</b> Work with the Global Digital Health Partnership to develop and apply the Global Interoperability Maturity Model.	The Agency	Short	On track	Through the Evidence & Evaluation workstream of the Global Digital Health Partnership, the Agency has led an international review of data maturity assessment tools. In collaboration with the Interoperability workstream, the Global Interoperability Maturity Model will also be considered. Draft papers were presented to the Vienna Summit in June 2024.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).





## Policy tools



### **Policy Tools**

Governments have many policy tools that could be used to support and accelerate interoperable solutions and standards. This priority area includes 1 immediate (2023-24) action to review policy tools.

### **Progress highlights**

This action is completed as reported in the first quarterly progress report.



## Policy tools progress update

Action	Lead(s)	Timeframe*	Status	2023-24 progress
6.1 <b>Review policy tools</b> Engage collaboratively with health departments and key stakeholders to review the effectiveness of current policy tools and assess the additional mechanisms required to support and accelerate interoperability.	The Agency	Immediate	Completed	In 2022 the Agency undertook an evidence review of policy tools to promote digital health system interoperability. The findings were shared with the Australian Government who committed to explore options to legislate information sharing in the 2023-24 Budget.

\* Actions are categorised as Immediate (2023-24); Ongoing (2023-24 to 2027-28); Short (2024-25 to 2026-27); or Medium (2025-26 to 2027-28).



Australian Government

Australian Digital Health Agency

Thank you to the Council for Connected Care and to all governments and organisations who provided input to this report.

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