Healthcare Identifiers Act and Service Review

Final Report
November 2018

HEALTHCARE IDENTIFIERS ACT AND SERVICE REVIEW

Final Report

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ACRONYMS AND ABBREVIATIONS

ACRONYM/ABBREVIATION	TERM
The Agency	Australian Digital Health Agency
AHMAC	Australian Health Ministers' Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
ACSQHC	Australian Commission on Safety and Quality in Health Care
COAG	Council of Australian Governments
CSP	Contracted Service Provider
DHS	Department of Human Services
EMR	Electronic Medical Record
ePIP	Practice Incentives Program eHealth Incentive
FHIR	Fast Healthcare Interoperability Resources
The Framework	National Digital Health Strategy Framework for Action
GP	General practitioner
Service Operator	Healthcare Identifiers Service Operator
HPI-I	Healthcare Provider Identifier—Individual
HPI-O	Healthcare Provider Identifier—Organisation
HPOS	Health Professional Online Services
IHI	Individual Healthcare Identifier
IHPA	Independent Hospital Pricing Authority
NASH	National Authentication Service for Health
NEHTA	National E-Health Transition Authority
NIO	National Infrastructure Operator
OAIC	Office of the Australian Information Commissioner
PCEHR	Personally Controlled Electronic Health Record
PHN	Primary Health Network
PKI	Public key infrastructure
PRODA	Provider Digital Access Portal

ACRONYM/ABBREVIATION	TERM
SLA	Service Level Agreement
SMD	Secure Messaging Delivery
The Strategy	National Digital Health Strategy
TDIF	Trusted Digital Identity Framework

1. EXECUTIVE SUMMARY

1.1 The Healthcare Identifiers Act and Service

The Healthcare Identifiers Service (the Service) provides the capability to accurately identify individuals receiving health care and healthcare providers and organisations to enable health information to be communicated electronically about the right patient to the right provider and healthcare organisation. By doing this, the Service provides a foundation for digital health programs aimed at supporting coordinated, safer and more effective care for individuals, efficiencies for healthcare providers and a more effective health system with reduced fragmentation and duplication of services.

The Healthcare Identifiers Service was established by the *Healthcare Identifiers Act 2010*, which commenced on 29 June 2010. The core purpose of the Healthcare Identifiers Act is to implement and maintain a national system for consistently identifying consumers and healthcare providers.

1.2 Purpose of the review

Section 35 of the Healthcare Identifiers Act requires that an independent review is undertaken of the Healthcare Identifiers legislation and the Healthcare Identifiers Service within three years of commencement of Schedule 1 to the *Health Legislation Amendment (eHealth) Act 2015*. The aim of the Healthcare Identifiers Act and Service Review is to ensure that the Healthcare Identifiers Act provides the regulatory support to enable the Healthcare Identifiers Service to operate efficiently and effectively and to identify any barriers to the identification of individuals, providers and organisations to support the secure exchange of clinical information for health care.

The review considered any legislative, operational or administrative barriers that may be impacting the achievement of the Healthcare Identifiers Act's objectives and makes recommendations to improve performance against the objectives of the Act.

The scope of the review **excluded** functions, processes and provisions that directly interact with the My Health Record legislation and system due to the change to an opt-out model. These interactions will be covered by the My Health Record Review, to be undertaken in 2020.

1.3 Extent to which the purpose of the Healthcare Identifiers Act and regulations has been achieved

The Healthcare Identifiers Service is a standalone service but one that provides a core foundation enabling the implementation of initiatives under the National Digital Health Strategy (the Strategy) and the broader potential to streamline business as usual processes within health services. The effectiveness of the Service is measured by the extent to which it supports programs such as My Health Record and Secure Message Delivery (SMD). The evolving strategic roadmap for the Service is defined and driven by the requirements of the Strategy initiatives and the Strategy's Framework for Action (the Framework).

Overall, the Healthcare Identifiers Service is achieving its core objectives and delivering a unique identification service for healthcare recipients and providers as intended. However, at this point the Service is not being fully leveraged to the degree contemplated in the Act or, to the extent possible, to achieve the potential full range of benefits.

1.4   Factors that have limited the achievement of the objectives of the Act

The extent to which the Healthcare Identifiers Service can achieve the objectives of the Act is driven by the rollout of the programs that require identification services and the level of adoption and utilisation by health services. There has been a steady growth in usage as participation in My Health Record has increased. The potential for expanded use for the other purposes envisaged by the Healthcare Identifiers Act will be realised as other initiatives are implemented. To ensure this potential is met, the planning for any digital health or national information initiative needs to address how the Healthcare Identifiers Service can support the program and whether there are any policy, process, technical or resource impacts in relation to the Healthcare Identifiers Service that need to be managed during implementation planning.

As the use of the Healthcare Identifiers Service has increased, the workload to manage errors and resolve failed matches—and the demand this places on resources—is becoming an increasing challenge for users. Where error resolution is performed as a back-end support function, usually by a small team, there is a risk that the increasing volumes of new rollouts will result in increasing backlogs of unmatched records, which could generate safety and credibility risks to the digital health programs using the Healthcare Identifiers Service. If clinician or consumer trust is impacted by missing data, there may be a follow-on impact on adoption and use.

There have been challenges with the implementation of Healthcare Provider Identifiers for individuals that have resulted in the ongoing use and creation of different identifiers for specific purposes. This has reduced the effectiveness of the Healthcare Identifiers Service as a single source of validated Healthcare Identifiers for all healthcare providers. The level of adoption of Healthcare Provider Identifiers—Individual (HPI-I) and Healthcare Provider Identifiers—Organisation (HPI-O) is not consistent across all provider types, with groups such as specialists and allied/community health under-represented. Increasing participation across all groups will be a critical success factor for many health programs.

The Healthcare Provider Directory in its current form is not delivering the benefits intended. There is duplication between the functions of the Healthcare Provider Directory and the National Health Services Directory and a lack of functionality in the Healthcare Provider Directory to fully support its intended purpose.

1.5   Performance of the Healthcare Identifiers Service Operator under the Act

Overall, the Healthcare Identifiers Service is seen to be operating effectively, and the Healthcare Identifiers Service Operator (the Service Operator) is generally providing the level of support needed for the current level of use of the Service, although improved monitoring and reporting on degradation of service is needed. Utilisation could be improved through more active engagement and feedback processes to address data quality and matching enhancements between the Department of Human Services (DHS) and jurisdictions. DHS has commenced work on a reporting modernisation plan to expand the information they provide. The new plan will enhance the level of feedback to health services on utilisation, match rates and data quality issues. The potential impacts of the transition to opt-out on business processes, resourcing and funding requirements; the impact that any future re-platforming of My Health Record may have on the Healthcare Identifiers Service; and the impact of new standards, such as the Fast Healthcare Interoperability Resources (FHIR) standard, have not been fully assessed at this point.

1.6 Improving performance against the objectives of the Act

Strategic positioning of the Healthcare Identifiers Service

The value of the Healthcare Identifiers Service lies in the foundation it provides in uniquely and accurately identifying consumers of health care, and healthcare providers, for the broad spectrum of initiatives addressed in the Strategy. Any consideration of enhancements or changes to the way the Healthcare Identifiers Service operates need to be driven by the requirements of the initiatives which have current or future dependencies on the Healthcare Identifiers Service.

To ensure these requirements can be met, there needs to be a close alignment between planning for national digital health or information initiatives, identifying how the Healthcare Identifiers Service can best be leveraged to support these initiatives, and developing a strategic roadmap for the Healthcare Identifiers Service that defines how it contributes to the Framework. This includes consideration of the emerging role of healthcare support organisations and ensuring that the implementation of HPI-Is and HPI-Os and provider directories meet the current and emerging requirements of the Strategy.

It is recommended that:

1. The Australian Digital Health Agency (the Agency) develop a Healthcare Identifiers Service Strategy and Roadmap within the scope of work to develop a future roadmap and a national health technology strategy[1] that includes:

    a. a review to ensure the Healthcare Identifier business architecture, both within the Service and within jurisdictional clinical systems architecture, is aligned with future use cases and emerging standards

    b. defined use cases for the Healthcare Identifiers Service to support the scope of the Strategy and Framework, including use cases for permitted secondary uses

    c. an assessment of the projected impacts of new digital initiatives on the Healthcare Identifiers Service (functionality, volumes, resourcing, availability requirements and cost for both the Service and jurisdictions)

    d. actions to extend uptake and participation among provider groups who are currently under-represented (such as specialists and community and allied health).

2. The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, and within the context of the planned initiatives in the Framework for Action and futures roadmap:

    a. identify and promote the business case / incentives for broader adoption of Individual Healthcare Identifiers (IHIs) and HPI-Is within jurisdictions

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[1] Framework for Action, sections 2.1.4 and 3.2.1, scheduled for 2018–19.

b.   review the business model underpinning HPI-Is to clarify the roles of all parties involved in provider identification, the function the Healthcare Identifiers Service performs as the source of truth for all provider types, and the relationship between the provider identification/credentialing process and the provider directory functions.

3.   The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, assess the potential to integrate the National Health Services Directory with the Healthcare Identifiers Service, with the aim of rationalising national directory infrastructure.

If this is endorsed, an amendment to the Healthcare Identifiers Act would be required to enable the Service Operator to disclose HPI-Is and HPI-Os and identifying information to the National Health Services Directory operator; and for the National Health Services Directory operator to collect, use and disclose identifying information.

4.   The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, review provisions related to Contracted Service Provider (CSP) arrangements and consider expansion to organisations that support the delivery of health care or the operation of national infrastructure services related to health care, such as Primary Health Networks (PHNs), prescription exchanges and real-time prescription monitoring services.

Tactical actions

There would be significant value in defining a data quality framework and strategy to drive nationally consistent efforts to improve the quality of personal information to reduce risks of misidentification and to minimise the number of unmatched records. Implementation of processes to monitor data quality and error rates, and use of this data to promote continuous quality improvement, would also mitigate risks. In considering data quality requirements, the requirements for frequency of revalidation and the trigger events for an IHI to be revalidated should be considered. In the longer term, as patient administration and clinical systems are replaced/upgraded, incorporating the IHI as a core data element so that the collection and resolution of IHIs can be integrated into patient registration workflows would support quality improvement and adoption.

As usage of the Healthcare Identifiers Service increases as a result of implementation of opt-out participation in My Health Record, and as other digital initiatives are rolled out, failure to monitor and resolve errors could negatively impact both public and clinical trust in digital health.

Overall, the Healthcare Identifiers Act provides appropriate legislative support for the intended purposes of the Service as it is currently operating. There are a small number of amendments that would support assignment, collection, use and disclosure for emerging purposes.

The impact of growth in volumes of transactions on infrastructure, resource and funding models, potential technical changes to My Health Record and the impact of emerging standards on the Healthcare Identifiers Service should be assessed.

It is recommended that:

5. The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, develop a strategy / business case for data quality improvement that considers:

    a. target quality measures based on an assessment of the level of risk of matching errors / failed matches on digital health programs

    b. alignment between client registration and clinical management workflows and the IHI life cycle management, from creation of newborn IHIs and management of demographic updates (whether received by health services or by DHS) to retirement of IHIs at death

    c. roles, responsibilities and processes within the Service Operator and jurisdictions / health services to facilitate and streamline ongoing error monitoring and resolution

    d. the level of resourcing required for implementation and ongoing management

    e. a review of the current conformance requirements relating to the frequency of and triggers for revalidation of IHIs.

6. The Department of Health consider amendments to the Healthcare Identifiers Act to optimise participation and utilisation of the Healthcare Identifiers Service in line with the original objectives, specifically:

    a. section 12 be amended to enable the Service Operator to collect information directly from an individual for the purposes of assigning an IHI—this will affect individuals who are not eligible for Medicare

    b. an amendment to allow an individual to consent to use/disclosure of their IHI for a purpose not specifically defined by the Act be considered

    c. section 14(2) of the Healthcare Identifiers Act be reviewed to ensure it is aligned with the My Health Records Amendment (Strengthening Privacy) Bill 2018, preventing use of IHIs for the purposes of insurance or employment

    d. the limitations on disclosure of HPI-Is and the personal information relating to healthcare providers be reviewed

    e. the definitions of 'entity' and 'healthcare provider organisation' as defined in section 5 of the Act be reviewed to ensure that incorporated Local Health Network structures are supported

    f. an assessment of the conflicts between state/territory legislation and the Healthcare Identifiers Act that are perceived to be creating impediments to the disclosure of IHIs for the purposes of management, funding, monitoring and evaluation of health care be undertaken in order to clarify permitted uses.

7. The Agency and DHS review and update modelling undertaken by DHS and the National Infrastructure Operator (NIO) to assess the projected impact of the transition to opt-out to:

    a. ensure adequate infrastructure and resourcing is in place to manage the increase in volumes of transactions (IHIs, HPI-Is and HPI-Os)

    b.   assess whether the funding model is the most appropriate and cost effective given the projected increased in volumes.

8. The Agency assess the impact of the FHIR standard on the Healthcare Identifiers Service, and a plan for conforming to the standard be developed in collaboration with stakeholders.

9. The Agency review and promote guidelines on recommended organisation structures to best meet the requirements of current and planned digital health initiatives. This should include review and refinement of the provider type classification.

Operational improvements

While the Healthcare Identifiers Service is operating effectively, there are opportunities to further improve processes to continually improve the Service and levels of utilisation.

Participation and utilisation of the Healthcare Identifiers Service could be increased through more transparently defining for end users the functions that are the responsibility of the Service and the services that are provided by the Agency. Building an assessment of how best to integrate the functions of the Service in the planning, engagement and change management activities of all digital health programs would also support ongoing improvements in the alignment between the processes of the Healthcare Identifiers Service and processes within health services.

At a more operational level, increased engagement between the Service Operator and jurisdictions would help to streamline and align the processes and workflow between the Service and the jurisdictions by providing more opportunities for feedback on matching issues, registration, data quality and user requirements.

It is recommended that:

10. The Department of Health implement a process to track the implementation of the recommendations of this review and report to ministers as required.

11. The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, develop resources to assist in interpretation of the Healthcare Identifiers Act and optimal use of the Healthcare Identifiers Service, such as:

    a.   an online learning module on the Act and its interpretation

    b.   policy development toolkits

    c.   training of client registration staff that specifically addresses Healthcare Identifiers Service requirements to raise awareness

    d.   educational tools for use in staff training, incorporating clinical use cases demonstrating quality and safety consequences relating to patient identification processes.

12. DHS provide a test/training environment that would allow the Agency to test the full end-to-end process to support development of accurate educational and support materials.

13. DHS, in collaboration with the Agency, continue their engagement with jurisdictional and other Healthcare Identifiers Service users:

    a.   in the definition of requirements for the modernisation program

b. through monitoring and providing feedback to users on data quality

c. on options to streamline registration processes for providers and organisations to increase uptake

d. to monitor match rates and, in collaboration with end users, identify opportunities for further enhancement.

14. The Agency and DHS clarify governance roles and responsibilities and communicate this to all stakeholders.

15. The Agency define measures for, and include reporting on, degradation of service in future Service Level Agreements (SLAs) with the Service Operator.

2.   INTRODUCTION

2.1   Overview of the Healthcare Identifiers Service

The Healthcare Identifiers Service provides the capability to accurately identify individuals receiving health care and healthcare providers and organisations to enable health information to be communicated electronically about the right patient to the right provider and healthcare organisation. By doing this, the Healthcare Identifiers Service is a foundation for digital health programs aimed at supporting coordinated, safer and more effective care for individuals, efficiencies for healthcare providers, and a more effective health system with reduced fragmentation and duplication of services.

The capacity to accurately identify individuals seeking health care and healthcare providers and health organisations is critical to support the following strategic priority outcomes of the Strategy:

* health information available whenever and wherever it is needed

* health information that can be exchanged securely via digital channels

* high-quality data with a commonly understood meaning, with interoperability delivered through clinical terminologies, unique identifiers and data standards

* better availability of and access to prescriptions and medicines information through electronic prescribing and dispensing

* digitally enabled models of care, such as the Health Care Homes trial and integrated care.

The Healthcare Identifiers Service is intended to support the objectives of:

* safer, more effective care for individuals that is better coordinated between the many services and healthcare providers that a person may access in relation to a single episode of care as well as over their lifetime

* more active consumer involvement in their health care and management of their health information

* a more efficient health system with reduced fragmentation and duplication of services

* continuous improvement in the health system through improved monitoring of patient outcomes

* improved management of health services, population health activities and research.

The Healthcare Identifiers Service is an essential component of the delivery of My Health Record but is a standalone service that supports a broader range of digital health initiatives. The Healthcare Identifiers Act supports this broader role of the Service. Legal advice that informed the 2013 review of the Service and Act identified that:

> [The Act was designed to be] broad enough to cover a range of clinical, administrative and business activities that are regularly undertaken to support the delivery of healthcare. For example, management, funding, monitoring or evaluation of healthcare is intended to include activities such as quality assurance, quality improvement, policy development,

planning, cost benefit analysis and the compilation of statistics in relation to those activities.[2]

A number of organisations play key roles in the management of the Healthcare Identifiers Service:

- The **Department of Health**, with input from states and territories, is responsible for legislation and policy setting for Healthcare Identifiers and other national digital health programs.

- The **Department of Human Services** (DHS) (Chief Executive Medicare) is the Service Operator. It has operational responsibilities for managing the Healthcare Identifiers Service.

- The **Australian Digital Health Agency** (the Agency) is the managing agent overseeing the contract and operation of the Service. It has responsibilities for implementation of the Strategy, alignment with other digital health programs and requirements, stakeholder engagement, communication, clinical safety and assurance.

- The **Australian Health Practitioner Regulation Agency** (AHPRA) is a Trusted Data Source responsible for assigning Healthcare Identifiers for registered healthcare providers that fall within AHPRA's area of responsibility. Healthcare Identifiers for other providers not registered by AHPRA are assigned by DHS. The Department of Veterans' Affairs is also a Trusted Data Source for the Healthcare Identifiers Service.

- The **Office of the Australian Information Commissioner** (OAIC) has a key role in the regulation and oversight of the Healthcare Identifiers Service.

- The **Australian Commission on Safety and Quality in Health Care** (ACSQHC) has responsibility for investigation of incidents with potential clinical safety implications.

Uses of Healthcare Identifiers

Accurate identification of patients and healthcare providers is a fundamental requirement for the safe delivery of health care and is particularly critical whenever any transfer of care between healthcare providers or organisations occurs. As such, it is a core component of all digital health initiatives being progressed under the Strategy. Specific components of the Strategy that have dependencies on the Healthcare Identifiers program include the following.

My Health Record

My Health Record brings together health information from different repositories into a secure electronic record of key aspects of a patient's medical history. My Health Record uses the Healthcare Identifiers Service for the identification of patients and healthcare providers to enable clinical information to be added to the correct patient's My Health Record. Providers cannot author a summary without an HPI-I and cannot upload summaries to the My Health Record system without an HPI-O.

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[2] Healthcare Identifier Act and Service Review, Final Report, page 28: Minter Ellison Lawyers, Healthcare Identifiers Act and Service Review: Legal Advice on Specific Questions, section 16.

Currently, interaction with My Health Record is the primary reason that providers in both the public and private health sectors interact with the Healthcare Identifiers Service.

Participation in General Practice Incentives Programs—eHealth incentive

A related driver for general practice to engage with the Healthcare Identifiers Service is to be able to claim the Practice Incentives Program eHealth Incentive (ePIP) incentive payment. To claim this payment, practices must be registered with the Healthcare Identifiers Service and must upload shared health summaries to the My Health Record system for a minimum of 0.5 per cent of the practice's standardised whole patient equivalent. Participation in the Healthcare Identifiers Service is a prerequisite for participating in My Health Record.

Secure messaging

The Healthcare Identifiers Service underpins secure messaging used by general practice to electronically transmit and receive clinical messages to and from other healthcare providers. Integration of secure messaging capability and registration with the Healthcare Identifiers Service are eligibility criteria for the ePIP. Other than in general practice, the Healthcare Identifiers Service is not yet being widely used for SMD in other health services.

Electronic transfer of prescriptions

General practitioners and pharmacies are using the Healthcare Identifiers Service to enable the electronic transfer of prescription information between prescribers and community pharmacy.

eReferrals

eReferrals support the exchange of significant patient information from one treating healthcare provider to another via a national system of creating, storing and sharing referral reports. eReferrals can be sent and received directly between healthcare providers (point-to-point), through secure messaging and/or by uploading to and retrieving from a patient's My Health Record (point-to-share).

Prerequisites for the Healthcare Identifiers Service

The Healthcare Identifiers Service has the following requirements for healthcare organisations/providers to participate in digital health programs requiring interaction with the Healthcare Identifiers Service:

- software that enables connection with the Healthcare Identifiers Service

- an account for the Provider Digital Access Portal (PRODA)

- registration of the seed organisation (HPI-O) through Health Professional Online Services (HPOS)

- registration of any network organisations (if applicable: most health organisations are independent organisations—for example, general practitioner (GP) practices, specialists and pharmacies—and will not be part of a broader network such as in the public health system)

- an allocated HPI-O and HPI-I

- an identified Responsible Officer and Organisation Maintenance Officer

- an up-to-date Healthcare Provider Directory record.

The Healthcare Identifiers

There are three types of Healthcare Identifiers:

- Individual Healthcare Identifiers (IHI)—for individuals receiving healthcare services. All individuals who are eligible for Medicare or who are eligible for a Department of Veterans' Affairs pension automatically have an IHI assigned

- an HPI-I for healthcare practitioners involved in providing health care. These are assigned by AHPRA for providers who are registered by registration boards under AHPRA; and by the Healthcare Identifiers Service for all other types of providers

- an HPI-O for healthcare organisations such as hospitals, general practices, specialist practices, clinics or pharmacies where health care is provided.

The Healthcare Identifiers Service also manages the Healthcare Provider Directory.

Healthcare Provider Directory

The Healthcare Provider Directory includes all healthcare organisations that have been assigned an HPI-O. Individual providers need to opt in to be included in the directory. The primary role of the Healthcare Provider Directory is to support providers to locate other providers so they can make referrals or communicate other information about patients.

Governance of the Healthcare Identifiers Service

The Healthcare Identifiers Service is a joint initiative of all Australian governments. It was put into effect in 2008, when the Council of Australian Governments (COAG) agreed to universally allocate unique Healthcare Identifiers for individuals and providers to support the national electronic health records system.

In 2009 COAG signed a National Partnership Agreement for E-Health, which provided the framework for governance, legislative, administrative and financial arrangements for the Healthcare Identifiers Service.

The objectives, roles, responsibilities, governance and funding arrangements for the national digital health capability are now defined in the Intergovernmental Agreement for National Digital Health.

The main governance group for the Healthcare Identifiers Service is the Identification and Authentication Committee. This group was established to oversee service delivery and improvement of the Healthcare Identifiers Service, the National Authentication Service for Health (NASH) and other DHS leveraged products such as PRODA and HPOS. This group has an operational focus, with strategic direction for the Healthcare Identifiers Service being provided by the My Health Record Expansion Program Delivery Committee.

The My Health Record Expansion Program Delivery Committee endorses any change requests proposed by the Service Operator and is the escalation point for any service delivery risks that cannot be resolved by the Identification and Authentication Committee.

The governance structure is shown in Figure 1 below.

Figure 1: Healthcare Identifiers Service governance structure
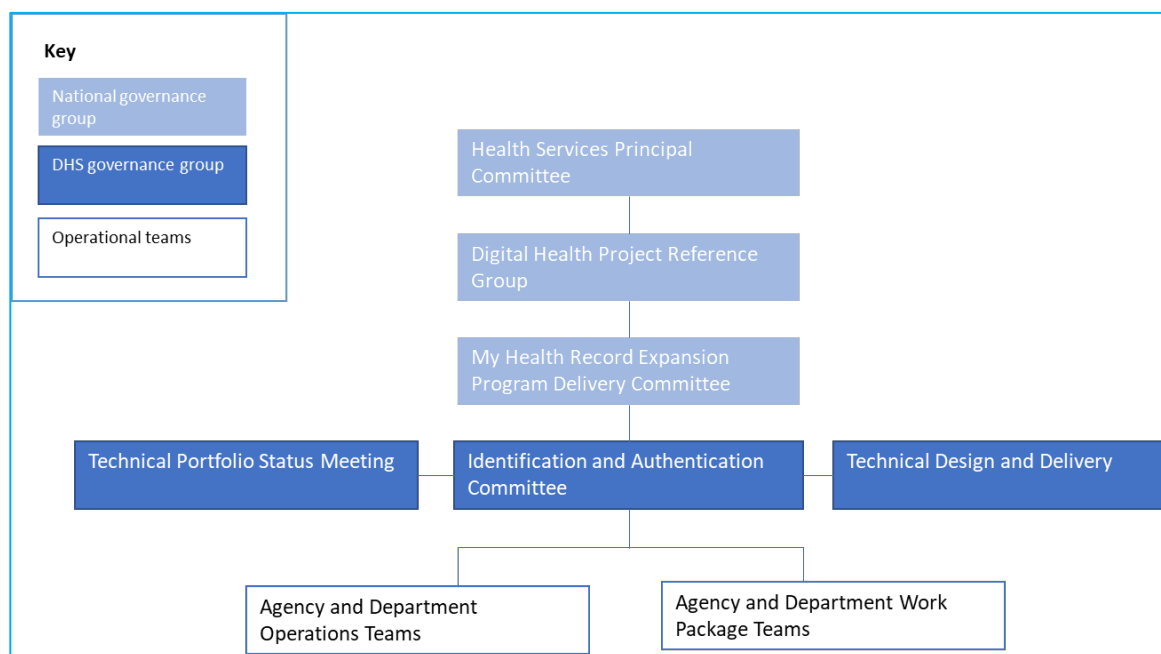
Roles and responsibilities

The Healthcare Identifiers Service has been operating under an interim agreement between the Agency and DHS since June 2016.

The services specified include:

- assigning IHIs

- collecting and adopting Healthcare Provider Identifiers assigned by Trusted Data Sources

- assigning HPI-Is to providers where no other Trusted Data Source exists

- assigning HPI-Os

- maintaining IHI, HPI-I and HPI-O information

- disclosing identifiers to authorised users for authorised purposes

- operating and maintaining a directory service to enable authorised users to search for and locate providers

- managing disaster recovery and business continuity processes

- allowing access to third-party software vendors to enable their software to access the Healthcare Identifiers Service

- maintaining information on the policies, processes and systems to operate the Healthcare Identifiers Service

- conducting security and penetration testing post major releases

- undertaking compliance, conformance and acceptance activities

- conducting testing and quality assurance activities

- undertaking duplicate and replica management activities

- providing agreed reports.

A services agreement covering all digital health services provided by the DHS, which covers NASH and My Health Record as well as the Healthcare Identifiers Service, was in draft form at the time of the review. The services agreement specifies roles and responsibilities, performance requirements and measures, incident management and complaints procedures.

The Healthcare Identifiers Act

The Healthcare Identifiers Service was established by the Healthcare Identifiers Act, which commenced on 29 June 2010. There have been subsequent amendments, as outlined in Table 1 below.

Table 1: Legislation and amendments

ACT	DATE OF ASSENT
Healthcare Identifiers Act 2010	28 June 2010
Healthcare Identifiers (Consequential Amendments) Act 2010	28 June 2010
Human Services Legislation Amendment Act 2011	25 May 2011
Personally Controlled Electronic Health Records (Consequential Amendments) Act 2012	26 June 2012
Privacy Amendment (Enhancing Privacy Protection) Act 2012	12 December 2012
Aged Care and Other Legislation Amendment Act 2014	4 December 2014
Health Legislation Amendment (eHealth) Act 2015	26 November 2015

The purpose of the Healthcare Identifiers Act is to implement and maintain a national system for consistently identifying consumers and healthcare providers.

Through implementation of this system, the explanatory memorandum to the Bill identified the following objectives for the Healthcare Identifiers Service:[3]

- to reduce avoidable harm to patients as a result of adverse events by supporting more effective communication of health information between providers

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[3] *Healthcare Identifiers Act 2010*, explanatory memorandum, http://classic.austlii.edu.au/cgi-bin/download.cgi/cgi-bin/download.cgi/download/au/legis/cth/bill_em/hib2010209.txt

- to support secure messaging from one healthcare provider to another by providing a consistent identifier that can be used in electronic communication

- to facilitate electronic communications between providers by providing a way for healthcare providers to look up the contact details of other providers

- to support the implementation of a security and access framework to ensure the appropriate authorisation and authentication of healthcare providers that access national digital health infrastructure

- to reduce duplication or fragmentation of investment in and limited uptake and adoption of digital health initiatives

- to achieve productivity improvements for specialists, general practitioners GPs and pharmacists by helping to automate routine interactions between care providers such as referrals, prescriptions and image processing; and reducing the time spent seeking information about the patient

- to reduce the time spent on and the cost of unnecessary or duplicated treatments such as diagnostic tests.

Current usage of the Healthcare Identifiers Service

There has been a steady increase in interactions with the Healthcare Identifiers Service over the last three years, as shown in Tables 2 and 3 below.

Table 2: Identifiers assigned

IDENTIFIERS ASSIGNED	TOTAL	2015–16	2016–17	2017–18	% CHANGE
IHI	28 234 737	591 597	597 008	565 416	−5.3
HPI-I	828 366	35 866	37 527	37 723	+0.5
HPI-O	13 340	796	943	2 500	+165.1

Table 3: Disclosed IHIs

DISCLOSED IHIS	2015–16	2016–17	2017–18
By telephone and service centre	10 340	5 769	1 156
Through web services	116 184 186	173 233 533	220 971 955

2.2 The Healthcare Identifiers Act and Service Review

Purpose of the review

Section 35 of the Healthcare Identifiers Act requires that an independent review is undertaken of the Healthcare Identifiers legislation and the Service within three years of commencement of Schedule 1 to the Health Legislation Amendment (eHealth) Act. The aim of the Healthcare Identifiers Act and Service Review is to ensure that the Healthcare Identifiers Act provides the regulatory support to enable the Healthcare Identifiers Service to operate efficiently and effectively and to identify any barriers to the identification of individuals, providers and organisations to support the secure exchange of clinical information for health care.

The review considered any legislative, operational or administrative barriers that may be impacting on the achievement of the Healthcare Identifiers Act's objectives and makes recommendations to improve performance against the objectives of the Act.

Scope of the review

The scope of the review was to consider and report on:

- the extent to which the purpose of the Healthcare Identifiers Act and regulations have been achieved through:

    o consistent assignment of identifiers to individuals, individual healthcare providers and healthcare organisations

    o use and disclosure of Healthcare Identifiers

    o use of Healthcare Identifiers by healthcare providers and organisations

- any factors that have limited the achievement of the objectives of the Act

- how performance against the objectives of the Act may be improved

- performance of the Service Operator in carrying out its roles and responsibilities under the Act.

The scope of the review **excluded** functions, processes and provisions that directly interact with the My Health Record legislation and system due to the transition of the system to opt-out and the scope of change associated with this. These interactions will be covered by the My Health Record Review, to be undertaken in 2020.

3. ACTION TAKEN IN RESPONSE TO RECOMMENDATIONS OF 2013 REVIEW

Table 4 summarises the action taken in response to the recommendations of the 2013 review.

Table 4: Actions in response to 2013 recommendations

RECOMMENDATION	STATUS
Recommendation 1: Governance Roles and responsibilities of all organisations contributing to the full end-to-end management process for the Healthcare Identifiers Service be reviewed to ensure that responsibilities and accountability for all aspects of the Service are clear. These should be formalised in appropriate contracts/agreements and communicated to all stakeholders. In particular, the following responsibilities and management processes should be further refined: • policy development and advice • legal review and risk assessments • support call procedures and handoff processes between service desks • Healthcare Identifiers Service assurance • communication and stakeholder engagement. **Recommendation 2: Governance** Governance structures be reviewed to assist closer integration of the governance, development and operation of COAG and Personally Controlled Electronic Health Record (PCEHR) programs of work. **Recommendation 3: Governance** A process of regular review of governance structures and processes be implemented by the Department of Health and Ageing (DOHA) to make sure they remain appropriate as the system moves through different stages of its life cycle and new dependent systems start to be implemented.	The governance structure currently in place does support closer integration between digital health initiatives, with the My Health Record Expansion Program Delivery Committee providing strategic direction for all programs of work. The roles and responsibilities of DHS are outlined in the schedule to the draft service agreement, but there is still limited visibility or clarity among external stakeholders about the boundaries between DHS and the Agency and the roles performed by each. The focus of the governance structure is closely tied to My Health Record—this reflects the current implementation priorities and Healthcare Identifier users among jurisdictions and primary health care.
Recommendation 4: Funding The Australian Health Ministers' Advisory Council (AHMAC) review options for a long-term funding model for the Healthcare Identifiers Service to promote the sustainability of the Service. This should include a review of the demand estimation methodology to assess its effectiveness in planning for growth generated by programs outside of the National E-Health Transition Authority's (NEHTA's) control and implementation of processes between NEHTA and DHS to manage the impact of unanticipated spikes in demand.	Funding is addressed in the Intergovernmental Agreement for National Digital Health until 2022 in accordance with the AHMAC cost shared formula and specified in the service agreement between the Agency and DHS.

RECOMMENDATION	STATUS
Recommendation 5: Service Level Agreements Consideration be given to revising the SLAs for the Healthcare Identifiers Service to: • ensure alignment between the Healthcare Identifiers and PCEHR SLAs • include scheduled downtime in measures of availability • include SLAs in relation to availability of the vendor test environment • enhance the management and resolution of any incidents that occur for the purposes of continuous improvement of the Service. Undertaking periodic independent review of performance against SLAs and other contractual requirements, such as reporting.	An integrated incident management framework and process has been implemented, and all incidents are initially reported to a central point. SLAs still exclude scheduled downtime in measures of availability and measures in relation to vendor test environments.
Recommendation 6: Strategic planning NEHTA, DHS and DOHA consider developing a formal product management process, including a strategic roadmap and annual business plan for the Healthcare Identifiers Service that identifies for a 12-month period all changes to be implemented, structure of releases, budget and required resources. This plan should be used as the basis for communication and reporting to stakeholders.	There is no current strategic roadmap or business plan specifically for the Healthcare Identifiers Service. Use of national infrastructure, including the Service, is referenced in the National Digital Health Strategy and Framework for Action 2018–2022. DHS has developed a modernisation strategy that is particularly focused on improving reporting and feedback to the jurisdictions on data quality.
Recommendation 7: Resourcing NEHTA and DHS review the resource requirements, budget and responsibilities required to support ongoing product development and the Healthcare Identifiers Strategic Roadmap.	See recommendation 6.
Recommendation 8: Data governance National guidelines on best practice processes for recording of identification data and a national data governance framework for data quality improvement for the purpose of the Healthcare Identifiers and other national systems be developed and implemented. Consideration be given to amendments to the Healthcare Identifiers Act to provide legislative support for the Healthcare Identifiers Service to engage in data quality improvement activities.	Data quality is still the primary issue raised by all users of the Healthcare Identifiers Service and is not being addressed by most jurisdictions due to resource constraints for these functions. The implementation model adopted has a significant influence on the level of effort in identifying and addressing data quality problems. The model adopted by most jurisdictions distances the staff involved in patient registration from the Healthcare Identifiers process and increases the difficulty of resolution.

RECOMMENDATION	STATUS
	The ACSQHC has published best practice guidelines for correct identification.[4] The Agency has published guidelines on Improving data quality and safety.[5]
Recommendation 11: Search functionality A feasibility study for implementation of a probabilistic search be undertaken, taking into consideration the functional changes that would be required, the cost of making these changes to Healthcare Identifiers Service and vendor systems and the privacy risks and impacts that would need to be addressed.	There have been improvements in the matching process with the introduction of 'soft matching', which allows for variation in one field. This has improved the success rate in all jurisdictions.
Recommendation 12: Healthcare Provider Directory participation a) section 31 of the Healthcare Identifiers Act be amended to distinguish between healthcare provider organisations and individuals b) the requirement for consent for healthcare provider organisations to be included in Healthcare Provider Directory be removed c) consideration be given to implementation of the model originally contemplated in the design of the Healthcare Identifiers Service to list the HPI-I on the public register published by AHPRA.	The business details of healthcare organisations are now automatically published in the directory without the requirement for consent.
Recommendation 13: Consolidation of provider numbers A feasibility assessment and Privacy Impact Assessment be conducted to evaluate the costs, benefits and risks that would be incurred if the HPI-I were adopted as the sole identifier for healthcare providers, replacing existing provider and prescriber numbers.	Not progressed.

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4 National Safety and Quality Health Service Standards, Correct identification and procedure matching, https://www.nationalstandards.safetyandquality.gov.au/6.-communicating-safety/correct-identification-and-procedure-matching/correct-identification-and

5 Australian Digital Health Agency, Improve data quality and safety, https://www.myhealthrecord.gov.au/for-healthcare-professionals/howtos/improve-data-quality-and-safety

RECOMMENDATION	STATUS
Recommendation 14: Amendments to the Healthcare Identifiers Act AHMAC consider the following amendments to the Healthcare Identifiers Act: a) including additional provisions in Division 1 of Part 3 of the Healthcare Identifiers Act which enable the making of regulations b) enabling the disclosure of IHIs to the Office of the Australian Information Commissioner for the purposes of complaints investigation and resolution c) enabling AHPRA to disclose HPI-Is to providers to promote adoption and use (e.g. through inclusion on annual registration renewals) d) expressly authorising the Service Operator to disclose an HPI-I to a healthcare provider organisation and expressly authorising the organisation to collect and use the HPI-Is e) amending Part 4 of the Healthcare Identifiers Act to include a provision that ensures that, for the purpose of applying Parts IV and V of the *Privacy Act 1988* in connection with a Healthcare Identifier, or an act or practice relating to a Healthcare Identifier, the national registration authority is to be treated as if it were an agency (within the meaning of the Privacy Act) f) clarifying the definitions in the Healthcare Identifiers Act to reflect that only HPI-I and IHI are considered personal information for privacy purposes g) amending the heading of section 15(1)(a) to clarify the scope of application of the section h) revising the term 'health care provider' in section 24 to resolve uncertainty regarding the use and disclosure of Healthcare Identifiers for aged care and disability programs i) clarifying the purpose for which IHIs can be disclosed under subparagraph 24(1)(a)(ii) j) standardising the definitions and conditions relating to CSPs across the Healthcare Identifiers and PCEHR Acts.	a) section in the regulations relating to the Healthcare Identifier and identifying information of a healthcare recipient added b) addressed under Privacy Act enabling the Privacy Commissioner to obtain access for purposes incidental or conducive to its functions c) a registration authority can collect and use HPI-Is for 'Performing any other function of the registration authority under an Australian law' d) amended in section 23 e) no change f) amended g) amended h) section amended i) section amended j) no change.

RECOMMENDATION	STATUS
Recommendation 15: Alignment of Healthcare Identifiers Act and Privacy Act reforms Section 29(3) of the Healthcare Identifiers Act be amended in line with the Privacy Act reforms.	Aligned with Privacy Act reforms.
Recommendation 16: Change request process Consideration be given to refining: a) the change request process so that the status of change requests, process of prioritisation, specification and design is more transparent to stakeholders b) the processes used to determine whether the enhancements are fit for purpose c) governance processes to ensure directly affected stakeholders have signed off on specifications prior to development and on system testing prior to implementation.	Change requests are submitted to the My Health Record Expansion Program Delivery Committee by the Identification and Authentication Committee for endorsement. Any strategic enhancements to the Healthcare Identifiers Service are provided by the My Health Record Expansion Program Delivery Committee.
Recommendation 17: Healthcare Identifiers test strategy and environments A test environment strategy be developed and testing mechanisms and environments be implemented to enable end-to-end testing of the Healthcare Identifiers Service and its interactions with other e-Health systems. This should include user acceptance testing and production verification testing as well as environments to support training and change management activities.	A Healthcare Identifiers Software Vendor Testing environment has been established which software vendors, the Agency Innovation and Development Support Team and National Infrastructure Operator can access to perform integration testing. This test environment is used to test the technical web services that make calls between a clinical information system to the Healthcare Identifiers Service, and between the My Health Record system and the Healthcare Identifiers Service. There are no PRODA and HPOS test environments that the Agency can remotely access to do end-to-end user testing in relation to PRODA and HPOS Healthcare Identifier and NASH related functionality changes. All testing of these functions is performed by DHS. DHS testing can be observed by the Agency to ensure that changes are according to approved business requirements and solution.

RECOMMENDATION	STATUS
Recommendation 18: End user support structures a) As an interim measure, a single point of contact for support for national e-Health systems and infrastructure is implemented with referral to appropriate support desks as a back-end process to simplify support for users. b) Consideration be given to transitioning to an integrated application and technical support structure for national e-Health systems.	There are still multiple entry points for support for difference programs and a lack of clarity among users about appropriate support channels.
Recommendation 19: Directory infrastructure A concept of operations for directory infrastructure be developed to identify options to rationalise directories, increase use and decrease maintenance cost and effort. This should consider the feasibility of integration between the National Health Services Directory and the Healthcare Provider Directory to reduce duplication and rationalise the national directory infrastructure.	Multiple directories are still in operation; however, there are a number of reviews related to directory services in progress. In collaboration with the Digital Transformation Agency, there is a body of work on the Agency four-year Framework to establish a single National Provider Addressing Service and an integrated digital identity framework as well as a review of the National Health Services Directory. The Intergovernmental Agreement on National Digital Health recognises the technical interdependencies between the Healthcare Identifiers Service, the National Health Services Directory and NASH.
Recommendation 20: Clinical safety Potential clinical safety incidents occurring in any national e-Health system be reported through a single point of entry and that a single entity is allocated responsibility for coordinating the resolution of these with the appropriate managing agency.	All potential clinical safety incidents are being managed by ACSQHC.
Recommendation 21: Issue resolution The governance structure for incident investigation for PCEHR be reviewed to ensure the effective coordination of actions between the Healthcare Identifiers and PCEHR Service Operators to resolve incidents related to the Healthcare Identifiers Service that impact the PCEHR and downstream systems.	This has been implemented. There is a single channel for investigation of incidents, falling under the responsibility of ACSQHC.
Recommendation 22: Issue management A process of structured analysis of adverse events that are related to misidentification be implemented to identify process issues that could be addressed through system or business process change.	ACSQHC has implemented a structured process to investigate causes of incidents, including assessment of process issues.

RECOMMENDATION	STATUS
Recommendation 23: Change management The change management strategy for Healthcare Identifiers be reviewed to consider: a) communication of changes to the Healthcare Identifiers Service, including functionality, policy, support etc., to be channelled through a single agreed point b) clarification of responsibilities for developing implementation support material c) development of material to reflect the business models of different provider groups (acute services, general practice, community health etc.) to be developed in consultation with stakeholders d) leveraging existing resources such as the DHS Business Development Officers and existing AHPRA communication processes with providers to increase the pool of available support e) including a targeted Healthcare Identifiers component in the change and adoption processes for PCEHR[6] and other e-Health programs.	DHS communicates changes to software vendors and develops/updates vendor support material. The Agency has responsibility for communicating changes to users who are not vendors (such as healthcare providers and organisations).
Recommendation 24: System enhancement A mechanism for ongoing business process review be implemented now the system is moving to active use to inform ongoing system development and enhancement to ensure that business processes are practical as usage increases.	Ongoing review is handled through the Healthcare Identifier and NASH Project and Release Assurance arrangements: • The Agency approves the DHS external change request, which contains the high-level business requirements or service enhancements. • The Agency and DHS agree and endorse the system requirements. • DHS delivers the solution and technical specifications and the Agency reviews and endorses. • DHS provides a statement of assurance for each project/release deliverable, including outcomes of quality assurance testing and performance testing.

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[6] The Personally Controlled Electronic Health Record (PCEHR) is now known as My Health Record.

4.   SUMMARY OF FINDINGS

4.1   Usage of the Healthcare Identifiers Service

My Health Record is the primary driver for use of the Healthcare Identifiers Service

At this point the primary reason that both public and private healthcare organisations interact with the Healthcare Identifiers Service is for My Health Record.

Other than My Health Record, much of the focus is on digital health or information projects within jurisdictions, and there is not a perceived value in using IHIs for projects within jurisdictional boundaries.

There is minimal active planning on how best to utilise the Healthcare Identifiers Service to progress other areas of digital health

Although other potential uses for the Healthcare Identifiers Service were identified in the consultations, there are few organisations with clearly defined and intended uses of the Healthcare Identifiers Service that are being progressed, other than for My Health Record, some projects involving public and private healthcare providers, and potential use by the Independent Hospital Pricing Authority (IHPA) for development of more innovative funding models.

There is little clarity about potential uses and how best to integrate the Healthcare Identifiers Service within the existing clinical systems and business architecture, and whether the architecture of the Healthcare Identifiers Service is fit for purpose for other uses, such as secure messaging. There is some tension between deeply embedded and longstanding business processes and a new business environment that could be leveraged through more effective use of the Healthcare Identifiers Service.

Effectiveness of the Healthcare Identifiers Service is limited by data quality constraints and levels of resourcing required to actively manage the interface with the Healthcare Identifiers Service

Although the Service Operator monitors usage and data quality, and most jurisdictions are monitoring match rates, the majority of health organisations are not actively resolving errors or addressing data issues. This is partly a consequence of:

- the technical constraints with systems and their ability to store and display the IHI, which has contributed to the architecture in use across most of the public health system, where the IHI is not visible to frontline staff, reducing the opportunities to confirm details when the patient is still present

- the resource requirements that would be needed to manage this process.

DHS is in the planning stages of a modernisation program that will deliver significantly improved reporting on Healthcare Identifier usage, match rates and data quality to users of the Healthcare Identifiers Service. This should help with the implementation of targeted data quality initiatives.

There is not a good level of understanding about the permitted uses and disclosure of Healthcare Identifiers, and this is limiting utilisation

Despite efforts to clarify the permitted use of Healthcare Identifiers, there is still a high level of uncertainty about the circumstances when IHIs and HPI-Is can be used.

4.2 Potential future uses

A number of potential future uses of Healthcare Identifiers and the Healthcare Identifiers Service were raised as offering future benefits:

- increased use of secure messaging between the public and private health sectors

- future patient use of the IHI and how this can support the development of future IHI use cases to drive digital health innovation. As an example, this may include the IHI integrating with personal digital health devices (such as a mobile phone app, wearable device or medical device) to uniquely identify the patient and integrate with digital health platforms and electronic medical records (EMRs)

- implementation of outcome measures, including patient-reported outcome measures, across public and private providers

- implementation of eReferrals to provide a secure mechanism to exchange patient referral information from one treating healthcare provider to another

- usage of IHIs to manage cross-border patient flows for patient care and funding purposes

- usage of IHIs to improve the management of patients who have been contracted to the private sector by a public health service

- secondary uses of data, such as tracking readmissions across states, evaluation, outcomes measurement and investigation of innovative funding models

- usage of IHIs to communicate about patients contracted to non-government organisations

- streamlining provider credentialing / facilitating a 'one-stop shop' for providers

- improved inter-agency case management

- enhanced interaction with community pharmacy (prescribing/dispensing and maintaining registries of restricted drugs)

- improved management of Better Value Care programs (for example, bowel cancer registry and linkage of test kits issued, results and subsequent colonoscopies).

For usage to increase:

- Understanding across the sector of what uses are permitted needs to be improved.

- Advice is needed from the Agency on the optimal architecture to integrate the Healthcare Identifiers Service with local systems, to support emerging and future use cases.

- There needs to be a better understanding of jurisdictional processes and understanding of how Healthcare Identifier interaction can complement workflows.

A potential barrier to use of the Healthcare Identifiers Service is the ability of healthcare supporting organisations to access the Healthcare Identifiers Service to support the delivery of health care or the operation of national infrastructure services related to health care—for example, prescription exchanges and real-time prescription monitoring. The current CSP arrangement (support organisations acting on behalf of a healthcare organisation) may not be the most fit-for-purpose approach based on future use cases of the Healthcare Identifiers Service and may limit these types of purposes.

4.3 Storage of Healthcare Identifiers and integration with the Healthcare Identifiers Service

There are three primary integration models in use:

1. Use of the Health Identifier and PCEHR System (HIPS) product to search for and retrieve IHIs. HIPS is a standalone middleware product used to integrate with the Healthcare Identifiers Service, My Health Record, the Healthcare Provider Directory and the National Health Service Directory and for secure messaging purposes. This is a back-end process, meaning that frontline staff have little visibility of patients' IHIs.

2. Through an agency integration engine and enterprise patient register. As with HIPS, this is a back-end process and staff have little visibility of IHIs except when the IHI is embedded in a type of document such as a discharge summary.

3. The Healthcare Identifier interface is embedded in patient administration / practice management systems, and IHIs are visible to clinical systems users.

The majority of jurisdictions do not store IHIs

The majority of jurisdictions do not store IHIs in their Patient Administration System / EMR, so IHIs are not visible to staff who are interacting with patients and have opportunities to resolve potential duplicates or errors. In many cases, this is a result of technical limitations with systems. In contrast, most general practice systems do store the IHI and this is visible to clinicians and practice management staff. This has advantages in that errors in matching are evident while the patient is still present and can be addressed immediately.

4.4 Implementation

Architecture and resourcing have implications for error resolution

Most organisations have implemented the interface with the Healthcare Identifiers Service as a back-end function, so there is no visibility of IHIs to frontline staff and no immediate feedback that a match has not been successful. This results in lower awareness of the impact of poor data quality and the need for a high level of precision when registering patients. As errors are generally not resolved during the patient registration process, the process to resolve is more complex. The level of resourcing required to manage errors was a concern to the majority of stakeholders.

Frequency of revalidation is a concern

The requirements around frequency of revalidation of IHIs were raised as an issue by a number of stakeholders. This has been a cause of concern for a small number of consumers who have seen their IHIs being accessed outside a healthcare event.

Variability in IHI handling by different vendors leads to inconsistent match rates and error handling

Despite complying with the Healthcare Identifiers Conformance Assessment Scheme, DHS has identified that the range of different ways that vendors handle IHIs leads to variable results in matching, resulting in much higher error rates among users of some systems than others.

An absence of active monitoring is affecting uploading of records

Few organisations have active processes in place to monitor issues with the Healthcare Identifiers Service. When issues occur that result in IHIs not being retrieved, this has consequences for records being uploaded to My Health Record. There have been occasions where this has resulted in large numbers of records that clinicians thought were being uploaded to My Health Record not being matched or loaded.

Certificate management is a challenge

Current processes around certificate management were identified as a challenge in both the public health system and for PHNs supporting general practice. When there are issues with certificates, resolving the cause of the problem can be difficult. There are also challenges caused by high turnover of staff, which results in a loss of knowledge about the renewal process.

4.5 Healthcare Identifiers Act

There were very few issues identified in consultations about limitations resulting from the Healthcare Identifiers Act. Most jurisdictions and other agencies interviewed believed the Act to be effective in relation to its objectives. There was a common view, however, that it is not well understood, and this, combined with concern about the scale of the penalties in place for breaches, is contributing to slow adoption for uses other than My Health Record.

Assignment

There is no specific provision under Division 2(12) for the Service Operator to collect information directly from an individual for the purposes of assigning an IHI. This affects individuals who are not eligible for Medicare.

Disclosure and use

The issues raised concerning disclosure and use relate more to a lack of awareness of the legitimate uses and circumstances for disclosure than actual limitations under the Act. The issues raised that are limitations under the Act include the following:

- An individual cannot consent to use of their IHI for any purpose. This restricts potentially beneficial uses such as evaluation projects or quality assurance managed by PHNs and the linkage of data from personal devices, apps and implantable/wearable devices to other health data.

- It is unclear whether the current CSP arrangement (support organisations acting on behalf of a healthcare organisation) is the most fit-for-purpose approach based on future use cases of the Healthcare Identifiers Service, or whether a new arrangement is required for organisations that support the delivery of health care or the operation of national infrastructure services related to health care—for example, PHNs, prescription exchanges and real-time prescription monitoring.

- There are limitations on disclosure of HPI-Is and the personal information relating to healthcare providers. AHPRA in particular is receiving increasing requests for HPI-Is for a range of purposes, such as for universities to track student placements in rural hospitals or for organisations creating provider portals. A consequence of the inability to use HPI-Is is that new identifiers are created, resulting in multiple provider identifiers in use for different purposes and no source of truth for provider data.

- The definitions of 'entity' and 'healthcare provider organisation' may not support the structure of Local Health Networks established in some jurisdictions. Section 5 of the Healthcare Identifiers Act currently defines a 'healthcare provider organisation' as follows:

  [A healthcare provider organisation is] an entity, or a part of an entity, that has conducted, conducts, or will conduct, an enterprise that provides healthcare (including healthcare provided free of charge).
  Example: A public hospital, or a corporation that runs a medical centre.

  An 'entity' is defined as:

  a person; or
  a partnership; or
  any other unincorporated association or body; or
  a trust; or
  a part of another entity (under a previous application of this definition).

  These definitions do not appear to support structures where Local Health Networks are incorporated under an Act, such as the South Australian *Health Care Act 2008*.

- There is the potential for a change to the Healthcare Identifiers Act in response to the Senate Community Affairs References Committee inquiry into the My Health Record system, which recommended that the 'Australian Government amend the *My Health Records Act 2012* and the Healthcare Identifiers Act to ensure that it is clear that an individual's My Health Record cannot be accessed for employment or insurance purposes'.

  Section 14(2) of the Healthcare Identifiers Act specifies that in relation to collection, use and disclosure of identifiers for the purpose of providing health care:

  This section does not authorise the collection, use or disclosure of the healthcare identifier of a healthcare recipient for the purpose of communicating or managing health information as part of:
  a) Underwriting a contract of insurance that covers the healthcare recipient; or
  b) Determining whether to enter into a contract of insurance that covers the healthcare recipient (whether alone or as a member of a class); or

> c) *Determining whether a contract of insurance covers the healthcare recipient in relation to a particular event; or*
>
> d) *Employing the healthcare recipient …*

The major challenge raised by the jurisdictions is their interpretation of the Act, particularly in relation to use and disclosure. There is not a consistent understanding of the purposes for which IHIs and HPI-Is can be used, to whom they can be disclosed and the impact of interaction between state/territory legislation and the Healthcare Identifiers Act. This lack of clarity, and concern about inadvertent breaches, is contributing to a reluctance to use the Healthcare Identifiers Service for potentially beneficial and innovative purposes.

There is not close and visible, alignment between the requirements of the Act and local policy, particularly linkage between patient registration policies and procedures and the Healthcare Identifiers Service. There is a lack of easily accessible support materials to help inform policymakers about what is and is not permitted under the Act.

4.6   Healthcare Identifiers Service

Operation of the Service

Overall, the Healthcare Identifiers Service is seen to be operating effectively, and the Service Operator is generally providing the level of support needed for the current level of utilisation. DHS has commenced work on a modernisation plan that will enhance the level of feedback to health services on utilisation, match rates and data quality issues. The level of engagement between DHS and jurisdictions was raised as an area that could be improved, both by DHS and by state and territory representatives. The potential impacts of the transition to opt-out on resourcing and support, and the potential for future re-platforming for My Health Record on the Healthcare Identifiers Service, have not been fully assessed at this point.

Planned enhancements to the Service

DHS has a number of planned enhancements to the Healthcare Identifiers Service to improve levels of feedback to users and to use data analytics to improve practices at a vendor and user level. The planned improvements include:

- implementation of more trend data to monitor usage and match rates and to identify any anomalies

- reviewing error codes for failed searches by vendors to identify both good and poor practice to drive improvement

- improved reporting and identification of factors that lead to better search success and an attempt to identify best practice

- provision of a dashboard highlighting matches and data quality back to jurisdictions.

Technical environment

Few issues were identified with the Healthcare Identifiers Service technical environment. Issues that were raised include the following:

- The operational effectiveness and SLAs should also cover 'degradations of service'. The SLAs currently only include outages; however, when a degradation of service occurs, health services are unable to effectively use the Healthcare Identifiers Service (and therefore there is a downstream impact to use of the My Health Record). The SLAs should also include time frames for notifying vendors of outages.

- If there are changes in the future to re-platform My Health Record, there will need to be an assessment of the impacts of this on the technical and business environment of the Healthcare Identifiers Service, and any required changes will need to be factored into implementation planning.

- Response times with the Healthcare Identifiers Service can be slow, and there was some concern about the impact of increased volumes with higher participation rates in My Health Record. There were also concerns raised about the effectiveness of the Service Operator's monitoring and reporting on degradation of service to jurisdictions and the impact this has on downstream systems.

- There has been an improvement in the frequency and management of outages, and these are planned with limited frequency.

- GPs drop in and out of the Healthcare Identifiers Service because of problems with certificates and insufficient expertise to set up and manage certificates. Any change to software can impact certificates and cause them to fail.

Support arrangements

Overall, most Healthcare Identifiers Service users were satisfied with the support provided but felt there were opportunities to streamline support functions to make them easier to navigate. Feedback included:

- It is not easy to find out how to engage with the Healthcare Identifiers Service, get visibility of the services that are available or determine whether an issue should be taken to DHS or the Agency. It can be hard to identify who to talk to about specific issues or to get a general overview of functions, architectural advice and use cases.

- The separation of support for each service is not practical, as the boundaries are often not clear for users. This would be facilitated by a single support number for individuals, one for providers and one for vendors to provide assistance.

- While there was satisfaction with the operational support that is provided, the turnaround times vary from a few days to a month for more complex issues. There were concerns that response times may deteriorate when there is a substantial increase in the number of transactions being handled by the Healthcare Identifiers Service.

Interaction with the Australian Digital Health Agency

The respective roles and the division of responsibilities between DHS and the Agency are not clearly defined. This makes it difficult for users of the Healthcare Identifiers Service to identify who to engage for assistance, as there is no clear point of entry or clear delineation between the agencies for Healthcare Identifiers architecture, strategy and support.

4.7   The Healthcare Identifiers

Individual Healthcare Identifiers

Few issues were raised relating to the IHI. The IHI is not seen to have potential as the primary identifier, even by jurisdictions that are currently planning to implement a single state identifier, largely as a result of technical limitations with patient administration and clinical systems. The length and format of IHIs cannot be accommodated in some clinical systems.

Issues that were identified include:

- limitations placed on the use of IHIs as a result of their being treated as health information

- inability of an individual to consent to use of their IHI

- retirement of the IHI 90 days after fact of death data is received. This can be inconsistent with activity of a deceased person's My Health Record, which can remain active for an extended period of time

- inability for the Service Operator to assign an identifier for a person who is not enrolled in Medicare

- frequency of validation of IHIs

- establishment of pseudonym IHIs for children in care

- constraints on usage of IHIs resulting from state/territory legislation for purposes that are authorised under the Healthcare Identifiers Act (for example, provision of data to the IHPA).

Healthcare Provider Identifiers—Individual

Overhead in maintaining HPI-Is is considerable

Jurisdictional healthcare provider organisations and a small number of other healthcare provider organisations have been granted exemptions to the use of HPI-Is for interacting with the My Health Record system, on the basis of practical difficulties in collecting and using these numbers.

The turnover of staff and use of locums in large organisations creates a significant resource burden in maintenance of HPI-Is and the association with HPI-Os.

The benefit of use of HPI-Is is not evident to most users of the Healthcare Identifiers Service

There is not a clear value or use case for the HPI-I perceived by users of the Healthcare Identifiers Service. Other means of identifying providers are used for internal purposes and secure messaging where this has been implemented. Without a clear and beneficial operational use case at a local level, the resource implications of maintaining multiple provider identifiers are difficult to justify in relation to current digital health programs. Implementation of eReferrals could provide the incentive for HPI-I utilisation.

Provider type classifications, and the governance of these, are not fit for purpose

All stakeholders raised concerns about the utility of healthcare provider type classifications. Classifications are self-selected, poorly defined and difficult to apply to mixed practices. This has the potential to negatively impact on security and access settings for My Health Record.

The registration process is difficult

The process of obtaining an HPI-I is difficult, and they are slow to establish because of the level of documentation required and the involvement of different teams and processes.

While larger health services have human resources support to assist in this process, there were challenges reported for GPs and specialists who do not have this level of support. However, there have been ongoing improvements to the online process and continuing efforts to simplify the process.

Many GPs do not realise that they have to register via HPOS for the Healthcare Identifiers Service, My Health Record and NASH and do not find the instructions clear.

Non-AHPRA providers

Healthcare providers that are not registered with the AHPRA need to register with the Healthcare Identifiers Service directly. Registration has to be renewed each year to maintain their HPI-I to provide proof of continuing professional registration. This creates a disincentive for some providers to participate.

Healthcare Provider Identifiers—Organisation

The interdependencies between HPI-O hierarchies and the impact on digital health architecture are not well understood

There is significant variability in the way that HPI-O hierarchies have been implemented, and at the time structures were initially established there was little understanding of the downstream impacts of the structure on implementation of digital health, particularly relating to authentication and access control. There has been a tendency to adopt the simplest structure possible (for example, an entire state under a single HPI-O), but this approach limits access functionality in My Health Record and undermines the value of the identifier for other purposes, such as SMD and eReferrals.

Process for establishing HPI-O seed and network structure and meeting requirements are deterring participation and driving inappropriate structures

The process for establishing HPI-O and seed and network structures was raised as a significant issue by many stakeholders, with particular issues relating to:

- the clarity of the information on registration, which is found to be very complex

- identifying members of the support team who understand the process

- resolving any variance in the details provided as part of the application since, if it varies in any way from information that DHS already holds for another purpose, the application will be rejected

- the proof of identity process through PRODA is found to be difficult.

However, it was also observed that the process has been significantly improved and, now that it can be largely done online, the process that formerly took up to five weeks can now be completed within two to three days.

There is a need for improved standards and governance to ensure HPI-O structures are fit for purpose

There is a need for more guidance from the Agency on how organisations should be structured to optimally respond to digital health initiatives, as well as standards and data governance processes to ensure the structures being established are fit for purpose.

4.8 Healthcare Provider Directory

Role and strategic direction of the Healthcare Provider Directory is unclear

While there was consensus about the need for an up-to-date provider directory, there was a general lack of clarity about the role of the Healthcare Provider Directory, and questions were raised about whether it is fit for purpose. There was no evidence of a clear strategic direction for the directory. The Service Operator has not received feedback on utilisation or value but is incurring substantial costs in maintaining it. In its current form, there is duplication with other functionality, such as HPI-I and HPI-O look-up functions. A number of stakeholders consulted were unaware that the Healthcare Provider Directory existed.

Relationship with the National Health Services Directory is not resolved

There is duplication between the functions and content of the Healthcare Provider Directory and the National Health Services Directory. Given the effort and costs involved in maintaining the currency and accuracy of directories, there is little perceived benefit in duplicating this function.

Lack of easy search functionality, standardised terminology and standards on management of directory content limits use

Concerns were raised about the absence of standardised terminology, standards on how directory content is managed and governance controls over the directory. Searching functionality is limited, as general searches are not supported—the user must have details of the provider to conduct a search.

Incentives for providers to opt in are not clear

The Healthcare Provider Directory operates on an opt-in basis for individual providers. As at 30 June 2018, 26 199 providers were listed in the directory compared with 828 366 providers that have an HPI-I assigned.

4.9 Data quality and matching

The average matching success rate[7] is 86.5 per cent. On average, no match can be found for approximately 7.5 per cent of records, and 6.0 per cent of records return an error—the most common being that the IHI has been retired (3.7 per cent).

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[7] Data provided by the Department of Human Services.

Amendment to matching criteria have led to improvements to match rate

The changes to matching criteria to support 'soft matching' have improved the success rates in matching with the Healthcare Identifiers Service (from 75 per cent to 96 per cent in one jurisdiction).

Most stakeholders would like to see a program of continuous improvement based on customer experience to further improve the accuracy of matching.

Data quality improvement and error resolution are not resourced at a level that enables issues to be investigated and fixed

Data quality is the major challenge for users of the Healthcare Identifiers Service. Resolution of duplicate patients within local systems and improving levels of accuracy during patient registration are challenges for all health services. Most jurisdictions are not attempting to resolve failed matches, as they are not resourced at a level that enables investigation of all issues.

Error resolution is complicated by an inability to search and limited fields available on which to base a decision on whether records are duplicates; and an inability for health services to notify the Service Operator of updates to demographics if a patient provides updated details directly to the health service. As frontline staff do not have visibility of the IHI or generally have knowledge about the criteria for matching, there are minimal incentives to ensure the accuracy of data that is entered.

There is limited active monitoring of records that have failed to retrieve an IHI

There is little active monitoring of records that have not retrieved an IHI by end users of the Healthcare Identifiers Service. DHS intends to address this through the planned modernisation program, which will improve reporting and provide data quality dashboards to provide more visibility about the types of issues and support more targeted data quality improvement programs.

Clinical workflow is not always aligned with the requirements for retrieving an IHI from the Healthcare Identifiers Service

The full dataset required to retrieve an IHI from the Healthcare Identifiers Service is not always obtained in the clinical workflow of some types of service providers (for example, a community pharmacy may not collect a date of birth). This limits participation in the Healthcare Identifiers Service and other systems.

IHI matching issues particularly affect vulnerable populations

Highly vulnerable populations, which are particularly in need of effective coordination of health services, are those most likely not to be able to be matched with an IHI:

> *Working with Aboriginal people in remote settings we regularly find people with multiple names, dates of birth, and Medicare numbers and great need for medical care. The IHI identifier reports error and unable to match a Shared Health Record. This is a barrier to*

use of My Health Record for a group of people most in need of effective medical information transfer.[8]

Technical limitations / system impacts on matching

There are inconsistencies between middleware and clinical system vendors in the way that matching and error handling occurs, which can lead to a lack of transparency in the number of successful versus failed matches.

4.10 Governance

Governance arrangements between DHS and the Agency have improved

At an operational and management level, the working relationships and governance between DHS and the Agency are generally working effectively.

However, both agencies identified a need for more clarity about the roles and responsibilities of each party to ensure that the division of responsibilities and accountabilities for decision-making for policy, user engagement and operational management and user support are clear, to ensure effective and responsive decision-making.

Users of the Service are still seeking clarity on roles and relationships between the Agency and DHS

The role of the Department of Health in relation to the operation and interpretation of the Act, and in setting the objectives for the Service, is clear to stakeholders, but users of the Healthcare Identifiers Service did express a need for improved clarity about roles and responsibilities of DHS and the Agency. Clarity about which agency has responsibility for decision-making in particular circumstances, overarching governance and defined paths for approval, policy and architectural assistance and support are required.

Approval processes for changes need to be streamlined

The time frame to get a nationally requested change request implemented and the levels of approval required were identified as major inhibitors to innovation and adoption.

Communication to jurisdictions and other health service users needs to be improved

A need for improved communication from both DHS and the Agency in relation to the timeliness of information on upcoming changes, the potential impacts of these and the steps required to prepare, and the level and clarity of detail and resources provided, was raised in multiple consultation sessions.

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[8] Clinician input to the review.

5.   CONCLUSIONS AND RECOMMENDATIONS

5.1   Achievement of the objectives of the Act

The Healthcare Identifiers Service is a standalone service that provides a core foundation enabling the implementation of initiatives under the Strategy. It has the potential to streamline business as usual processes within health services. The effectiveness of the Healthcare Identifiers Service, and the evolving strategic roadmap for the Service, need to be driven by the requirements defined in the Strategy and the endorsed Framework.

Overall, the Healthcare Identifiers Service is achieving its core objectives and delivering a unique identification service for healthcare recipients and providers as intended. However, at this point it is not being fully leveraged to the degree contemplated in the Healthcare Identifiers Act, or to the extent that is possible, to achieve the potential full range of benefits.

The core purpose of providing the unique identification functionality required for My Health Record is being supported and is working effectively with the current operational model from a technical and service delivery perspective. While there has been planning for the increase in the volume of transactions that the Healthcare Identifiers Service will be managing once the transition to opt-out occurs, the scale of the impact on the Service Operator infrastructure, business processes and costs is not yet clear. The assessment of the impact of the potential re-platforming of My Health Record and of emerging standards such as the Fast Healthcare Interoperability Resource (FHIR) standard on the Healthcare Identifiers Service is not yet fully defined.

The effectiveness of the Healthcare Identifiers Service is challenged by the levels of resourcing in health services needed to maintain processes to monitor the system to identify and correct errors and failed matches. This process is particularly difficult where a patient provides a health service with updated details, as the Healthcare Identifiers Service will only permit updates of patient identity from Medicare or online mechanisms. In this situation, a health service is unable to update details held by the Healthcare Identifiers Service and resolve a matching error. This, combined with the lack of visibility within clinical applications of the success/failure of matches with the Healthcare Identifiers Service, increases the risk that documents that are intended to be uploaded to My Health Record will not be resolved. The impact of this will increase with the transition to opt-out if not actively managed. Potential safety or reputational risks could be created if the unmatched records are not resolved and are identified by patients or clinicians as gaps in the record, creating a risk of lack of confidence in the system.

The potential for the Healthcare Identifiers Service to be extended for other purposes is limited by the operating model between jurisdictional systems and the Healthcare Identifiers Service and the lack of alignment with patient registration and clinical workflows. IHIs are not used as a primary identifier and, in the public health system particularly, are not visible to frontline patient administration or clinical staff. Effective use of the Healthcare Identifiers Service is dependent on high-quality data and registration processes, and the separation of registration and Healthcare Identifier functions prevents immediate feedback to registration staff to help drive quality improvements.

There is no clear strategy or roadmap that aligns future enhancement of the Healthcare Identifiers Service with the requirements of the initiatives identified in the Framework. For example, potential future uses that would support more active engagement and participation of consumers in their health care, supporting the key themes 'Support me in making the right healthcare choices, and provide me with options' and 'Create an environment where my healthcare providers and I can use and benefit from innovative technologies',[9] will be constrained by the inability of individuals to consent to use of their IHI. The use of the IHI to integrate individual-controlled data from wearable technology, home monitoring devices and health apps with other sources of health data could have significant benefits, as could the opportunities for better monitoring of implantable devices.

There is little evidence of use of IHIs or HPIs to facilitate coordinated care or case management functions for complex patients engaging with a wide range of providers. While there has been a focus on adoption in sections of the health system, such as the jurisdictions, general practice and pharmacy, there are lower rates of participation in digital health among other health groups, such as specialists and community and allied health. To increase participation across the health ecosystem and expand the utilisation of Healthcare Identifiers, there need to be incentives for smaller providers to invest in conformant software. Until this occurs, the Healthcare Identifiers Service will be limited in its capacity to help progress broader health objectives of person-centred care, improved preventative health strategies, and reduction of pressure on acute services by facilitating care in the community.

The use of unique identifiers also has the potential to increase transparency and accuracy in reporting at both the national and local level. While this is not occurring yet, this is being proposed by the IHPA.

Even though accurate identification is at the core of the majority of national digital health strategies addressed in the Framework, the role of the Healthcare Identifiers Service in contributing to these is not defined or even specifically mentioned. Some initiatives identified in the Framework are directly related to the functions performed by the Healthcare Identifiers Service, but the relationship between them is not defined. For example, an action under secure messaging is the development of the National Provider Addressing Service to provide for a single directory to search for providers, but the relationship of this to the Healthcare Provider Directory is not clear.

Similarly, the relationship between the proposed co-production of an integrated digital identity framework with the Digital Transformation Agency, and how this aligns with the roles of the Healthcare Identifiers Service and functions to manage provider identifiers, is not specified.

The DHS public key infrastructure (PKI) implementation is accredited under the Gatekeeper PKI Framework from the Digital Transformation Agency, which works alongside the Trusted Digital Identity Framework (TDIF).

[9] Australia's National Digital Health Strategy: Safe, Seamless and Secure, p. 20.

Recent enhancements to the Online Seed Registrations are in line with the concepts in the TDIF. Online registration of roles in the Healthcare Identifiers Service, such as Individual Healthcare Providers, Responsible Officers and Organisation Maintenance Officers, all rely on the use of the Document Verification System, which is an Attribute Verification System in the TDIF model.

The Medicare PKI is a Credential Service Provider that supports the online issuance of NASH Organisation Certificates to Healthcare Provider Organisations for making digital health transactions. A review of the long-term direction of NASH is planned and will take into account future identity and access management requirements for healthcare providers and organisations.

Table 5 below summarises the extent to which the original objectives for the Healthcare Identifiers Service have been achieved.

Table 5: Achievement of Healthcare Identifiers Service objectives

OBJECTIVE	EXTENT ACHIEVED
To implement and maintain a national system for consistently identifying consumers and healthcare providers	This is the primary objective of the Healthcare Identifiers Service. It has been achieved through the infrastructure, policies and processes that have been established and are operating. Within the scope of services for which it is being used, the Service is operating effectively. The remaining challenge is refining search criteria and addressing failed matches to reduce the percentage of records where no IHI can be retrieved; and to establish and embed the adoption of HPI-Is.
To reduce avoidable harm to patients as a result of adverse events by supporting more effective communication of health information between providers	While this objective will be supported by enabling the expanded use of My Health Record, it is too early to assess the impact. The Healthcare Identifiers Service is not being widely used to support point-to-point communication of health information between providers, which would also support this objective.
To support secure messaging from one healthcare provider to another by providing a consistent identifier that can be used in electronic communication	The Healthcare Identifiers Service is only being used in a very limited way to support secure messaging at this point. Alternative vendor-specific solutions are being used as an alternative to the Healthcare Identifiers Service.

OBJECTIVE	EXTENT ACHIEVED
To facilitate electronic communications between providers by providing a way for healthcare providers to look up the contact details of other providers	The Healthcare Provider Directory is not being widely used at this point, as there are alternative directories and HPI-I look-up functions in use. The level of awareness of the directory is low.
To support the implementation of a security and access framework to ensure the appropriate authorisation and authentication of healthcare providers who access national digital health infrastructure	This has been achieved, but the approach to implementation of HPI-Os by most jurisdictions (where a single HPI-O has been used for the entire state public health system) will limit the effectiveness of the use for access control purposes as anticipated by this objective.
To reduce duplication or fragmentation of investment, limited uptake and adoption of digital health initiatives	Within the context of My Health Record, this objective has been achieved, as the Healthcare Identifiers Service has provided a consistent platform for identification to support adoption. For other purposes, such as Secure Message Delivery, there still seem to be a number of models being implemented that are not leveraging the Service as originally intended and appear to duplicate the functionality provided by the Service.

The potential to leverage the Healthcare Identifiers Service to improve data quality and create a unique linkage between duplicated registrations at a jurisdictional level is not being exploited at this point. Considerable effort is being expended on resolving duplicates between local systems at a jurisdictional level, which could be facilitated through the use of the IHI at a local level. |

OBJECTIVE	EXTENT ACHIEVED
To achieve productivity improvements for specialists, GPs and pharmacists by helping to automate routine interactions between care providers such as referrals, prescriptions and image processing, and reducing the time spent seeking information about the patient To reduce the time and cost spent on unnecessary or duplicated treatments such as diagnostic tests	There is strong potential for this objective to be achieved, and the opportunities for these interactions to be enhanced through use of the Healthcare Identifiers Service was identified by most stakeholders. At this point, however, the Service is not being used widely for these purposes, so the associated productivity improvements are limited. For this objective to be fully realised, there needs to be a cultural change across health services and an increase in trust in accepting externally created data.

5.2   Factors that have limited achievement of the Act's objectives

Lack of visibility of the Healthcare Identifiers Service and strategic opportunities

The lack of clear strategic direction for use of the Healthcare Identifiers Service beyond My Health Record, a lack of shared understanding of permitted use cases and the lack of clarity about the strategic role of the Healthcare Identifiers Service in delivering the Framework are contributing to a lack of visibility about opportunities to expand the use to support delivery of digital health. This creates risk that alternative identifiers will be implemented to meet specific project needs, weakening the value of the Healthcare Identifiers Service, rather than focusing on opportunities to leverage the existing infrastructure.

Implementation model / lack of integration of Healthcare Identifiers processes into clinical and patient administration workflows

While there is a clear rationale behind the implementation of the interface with the Healthcare Identifiers Service as a back-end function, the lack of transparency between frontline registration processes and the retrieval of IHIs and the lack of visibility of the IHI as an identifier to clinical staff have had some consequences that impact on broader adoption.

This model inhibits awareness of the impact of poor data quality and the need for a high level of precision when registering patients and introduces a time lag between the registration and any failed matches becoming known. As errors are generally not resolved during the patient registration process, the process to resolve is more complex and therefore more time-consuming.

With the current level of resourcing in place, most jurisdictions are not actively correcting any matching errors. As the volume of records that require an IHI to be retrieved increases, the impact of this approach is likely to become increasingly detrimental on downstream systems.

Healthcare Identifiers Act

There are no major constraints arising from the Act itself that are limiting achievement of its objectives. The issues that have been identified relate to the following.

Assignment

There is no specific provision under section 12 of Division 2 for the Service Operator to collect information directly from an individual for the purposes of assigning an IHI.

Disclosure and use

The limitations of the Act that were identified include the following:

- An individual cannot consent to use of their IHI for any purpose. This restricts potentially beneficial uses such as evaluation projects or quality assurance managed by PHNs or for individuals to choose to use their IHI in mobile health applications so that data gathered can be linked to other health records.

- It is unclear whether the current CSP arrangement is the most appropriate approach based on future use cases of the Healthcare Identifiers Service, or whether a new arrangement is required for organisations that support the delivery of health care or the operation of national infrastructure services related to health care, such as PHNs, prescription exchanges or real-time prescription monitoring. For example, there is no capacity for PHN projects aimed at improving outcomes for patients, and activities to support general practice with quality and data improvement, to use the IHI to track patient outcomes even with patient consent.

- There are limitations on disclosure of HPI-Is and the personal information relating to healthcare providers. AHPRA in particular is receiving increasing requests for HPI-Is for a range of purposes that are not directly related to communicating health information as part of the provision of a health service, registration of the provider or maintenance of provider details. Examples of other uses are tracking of student placements in rural hospitals by universities, and vendors developing provider portals to deliver information relevant to a provider via a 'one-stop shop'.

- Although the Act clearly identifies that the disclosure of IHIs to support management, funding, monitoring, evaluation of health care, provision of indemnity cover and conduct of Human Research Ethics Committee approved research is permitted and that organisations to whom IHIs are disclosed for these purposes are permitted to collect, use and disclose IHIs, there are perceived impediments arising from jurisdictional legislation in some states. This is impacting proposed uses, such as use by the IHPA for development of new funding models.

Healthcare Identifiers

Individual Healthcare Identifiers

The IHI is not seen as having potential as the primary identifier, even by jurisdictions that are currently planning to implement a single state identifier. This is largely as a result of technical limitations with patient administration and clinical systems. IHIs are not yet routinely embedded in communication of health information between providers.

Healthcare Provider Identifiers—Individual

Jurisdictional healthcare provider organisations and a small number of other healthcare provider organisations have been granted exemptions to the use of HPI-Is for interacting with the My Health Record system on the basis of practical difficulties in collecting and using these numbers. The turnover of staff and use of locums in large organisations creates a significant resource burden in maintenance of HPI-Is and the association with HPI-Os.

There is not a clear value or use case for the HPI-I perceived by users of the Healthcare Identifiers Service. Other means of identifying providers are used for internal purposes and secure messaging where this has been implemented. Without a clear and beneficial operational use case at a local level, there are resource implications of maintaining multiple provider identifiers that are difficult to justify in relation to current digital health programs.

As a unique number—unlike the Medicare provider number, which is location specific—the significant value of the HPI-I will be derived from implementation of electronic communication between providers, such as eReferrals. Without using the HPI-I, and having a single unique identifier for each provider, users will have to manage multiple location-based identifiers. This will increase the maintenance burden and the complexity of confirming credentials.

It is not clear what impact the increasing adoption of the FHIR standard[10] and the concept of the practitioner role will have on the Healthcare Identifiers Service. FHIR creates a provider identifier that blends the specialty and organisation details to create a unique provider identifier and could become seen as an alternative to the HPI-I and HPI-O.

Healthcare Provider Identifiers—Organisation

There is significant variability in the way that HPI-O hierarchies have been implemented, and at the time structures were established there was little understanding of the downstream impacts of the structure on implementation of digital health, particularly relating to authentication and access control. There has been a tendency to adopt the simplest structure possible (for example, an entire state under a single HPI-O), but this approach limits access functionality in My Health Record and undermines the value of the identifier for other purposes, such as SMD and eReferrals.

Healthcare Provider Directory

The Healthcare Provider Directory is currently not fulfilling the purposes envisaged under the Act. There was no evidence of a clear strategic roadmap for the directory.

It is unclear how the existing directory relates to the program of work identified in the Framework for the development of the National Provider Addressing Service to provide for a single directory to search for providers.

There is duplication between the functions and content of the Healthcare Provider Directory and the National Health Services Directory. Given the effort and costs involved in maintaining the currency and accuracy of directories, there is little perceived benefit in duplicating this function.

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[10] Fast Healthcare Interoperability Resources, https://www.hl7.org/fhir/valueset-practitioner-role.html

Data quality and matching processes

Data quality is the major challenge for users of the Healthcare Identifiers Service.

Most jurisdictions are not attempting to resolve failed matches, as they are not resourced at a level that enables investigation of all issues. This is compounded by the lack of visibility of the IHI in the front end of clinical systems and the lack of a real-time response when a match is not found, as the staff interacting with the patient are not involved in the resolution of the problem.

There is little active monitoring of records that have not retrieved an IHI by end users of the Healthcare Identifiers Service. DHS has plans to address this through the planned modernisation program, which will improve reporting and provide data quality dashboards to support data quality improvement programs.

The average matching success rate[11] is 86.5 per cent. On average, no match can be found for approximately 7.5 per cent of records, and 6.0 per cent of records return an error, the most common being that the IHI has been retired (3.7 per cent).

The changes to matching criteria to support 'soft matching' have improved the success rates in matching with the Healthcare Identifiers Service (from 75 per cent to 96 per cent in one jurisdiction). However, a program of continuous improvement based on customer experience to further improve the accuracy of searches and matching would be beneficial in broadening usage and helping to resolve errors.

Governance

At an operational and management level, the working relationships and governance between DHS and the Agency are generally working effectively. However, both agencies and users of the Healthcare Identifiers Service identified a need for more clarity about the roles and responsibilities of each party to ensure that the division of responsibilities and accountabilities for decision-making for policy, user engagement, operational management and user support are clear, to ensure effective and responsive decision-making.

5.3 Performance of the Service Operator

Overall, the Healthcare Identifiers Service is seen to be operating effectively, and the Service Operator is generally providing the level of support needed for the current level of utilisation. Utilisation of the Healthcare Identifiers Service could be improved through more active engagement and feedback processes to address data quality and potential matching enhancements between DHS and jurisdictions. DHS has commenced work on a reporting modernisation plan to expand the information provided that will enhance the level of feedback to health services on utilisation, match rates and data quality issues. The potential impacts of the transition to opt-out on business processes, resourcing and funding requirements, and the impact of future re-platforming of My Health Record on the Healthcare Identifiers Service, have not been fully assessed at this point.

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[11] Data provided by the Department of Human Services.

DHS is initiating a two-phase program of work to expand reporting and feedback to users of the Healthcare Identifiers Services. This will deliver the following initiatives.

Phase One:

- enhanced Healthcare Identifiers Service and NASH operations reports; delivering reporting efficiencies and reducing dependency on other areas for data

- enhanced IHI Search Volumes report, to be presented as a dashboard

- an SAS VA tool enabled to support dashboard presentation of data and increase analytical and reporting capability for internal and external stakeholders

- modernised digital health program reporting in line with the DHS Data Strategy, leading to better data to measure performance.

Phase Two:

- use of new data to identify areas for improvement and support evidenced-based change

- Healthcare Identifiers Service and NASH dashboards.

These initiatives will help to raise the profile of data issues with users of the Service.

Registration

The process to register healthcare organisations and establish seed and network structures was a major issue for organisations at the time of the first review of the Healthcare Identifiers Service. There have been a number of improvements to streamline this process, with expanded online functions, fewer paper-based forms and a faster turnaround. However, there are still significant volumes of paper-based forms being processed as part of the registration function, with associated resource impacts. There has been a significant increase in the number of healthcare organisations registering in the second half of 2017–18, requiring manual processing. DHS increased staff numbers to maintain the SLA of 80 per cent of paper forms processed within 20 business days.

Support processes

There was generally positive feedback on the level of operational support received from DHS. The major continuing issue is the multiple paths for support and identifying the appropriate channel to resolve a particular issue.

While the responsibilities for operational support are clear, there is less clarity among users about the appropriate path for advice on general functionality and use cases or to inform architectural decisions.

Availability

There has been an improvement in availability since the 2013 review, when the number of outages was identified as a significant issue. During 2017–18 the eight-second system response service level was 99.9 per cent and the four-second system response service level was 99.8 per cent.

The Healthcare Identifiers Service has a service level for availability of 99.5 per cent, which only incorporates unscheduled downtime. As the use of the Healthcare Identifiers Service increases for clinical communication and My Health Record, the impact of a lack of dedicated failover capabilities will need to be monitored, particularly as most jurisdictions do not store IHIs, instead retrieving them on an as-needed basis.

The SLAs only cover outages, not degradation of service. As degradation of service can also restrict health services' use of the Healthcare Identifiers Service, therefore impacting My Health Record and potentially other systems, incorporation of measures of degradation of service should also be considered.

Maintenance of Healthcare Identifier databases

DHS has good processes for monitoring data quality, identifying potential duplicates and maintaining the status of records. Processes to resolve duplicates that are identified are actively managed.

However, there is little visibility of these processes to jurisdictional end users of the Service, reducing the opportunity for proactive data quality improvement in downstream systems. The proposed modernisation program is intended to address this issue. The IHI reports issued by DHS are well received in primary care, where they are actively used by practice managers to correct errors in patient registration data.

The business rules around retiring IHIs after 90 days of inactivity and receipt of fact of death data is not consistent with My Health Record requirements, where there can be an extended period of activity involving the record after death. The process and time frames for retiring records should be reviewed to ensure the business rules align with the management of records of deceased persons in clinical systems.

Privacy

There have been no privacy or data breaches by staff in relation to the Healthcare Identifiers Service and no notifiable data breaches. There were no complaints relating to the Healthcare Identifiers Service made to the Office of the Australian Information Commissioner during the 2017–18 year.

A small number of individuals who have viewed their IHI search history have raised queries with the Information Commissioner and jurisdictions as a consequence of validation checking of IHIs that occurs independently of an individual's interaction with a health service. These queries have not resulted in complaints.

5.4 Opportunities for improved performance

The aspects of Healthcare Identifiers identified for potential improvement, and associated recommendations, have been grouped into three categories:

- strategic positioning of the Healthcare Identifiers Service

- tactical actions to address risks

- operational actions to enhance the Service.

Strategic positioning of the Healthcare Identifiers Service

Healthcare Identifiers Service and the National Digital Health Strategy: Alignment and integrated planning

The value of the Healthcare Identifiers Service lies in the foundation it provides in uniquely and accurately identifying consumers of health care, and healthcare providers, for the broad spectrum of initiatives addressed in the Strategy. Any consideration of enhancements or changes to the way the Service operates need to be driven by the requirements of the Strategy initiatives that have current or future dependencies on the Healthcare Identifiers Service.

To ensure these requirements can be met, there needs to be a close alignment between planning for national digital health and information initiatives, identifying how the Healthcare Identifiers Service can best be leveraged to support these initiatives, and developing a strategic roadmap for the Healthcare Identifiers Service that supports the Framework.

Planning for future use cases

To fully deliver on the objectives of the Healthcare Identifiers Service, there is a need to promote a broader and more consistent understanding of the potential future use cases and to ensure that the architecture and supporting service delivery model are fit for future purposes. There are opportunities to leverage the Healthcare Identifiers Service for a broader range of health initiatives and to engage a wider range of health providers to achieve better connected and more holistic care.

While many of the potential use cases relate to electronic communications and patient care improvements, there would be value in identifying use cases that demonstrate the potential to use the Healthcare Identifiers Service to drive quality improvement within jurisdictions, both from a data quality perspective within local systems and from the perspective of more effective secondary use for management, monitoring and evaluation.

The ability to use IHIs to facilitate case management where there are multiple services and agencies involved in a management plan for a client, such as disability, aged care and child protection, is an area that could offer future benefits.

Emerging roles of healthcare support agencies

The current definition of 'Contracted Service Provider' is narrow and may not provide appropriate coverage for the expanding types of organisations that support healthcare organisations (such as PHNs and prescription exchange services).

The scope and definition of contracted services, and the role of these types of organisations in delivering the Strategy, should be reviewed as initiatives are further defined to ensure that there is legislative support for emerging service delivery models.

Addressing adoption of Healthcare Provider Identifiers—Individual (HPI-I)

To most efficiently support digital health, a single identifier for each provider that is consistent, regardless of the setting, is needed. While this is not currently a prerequisite for My Health Record, it will be increasingly important for direct electronic communications between providers.

Implementation of HPI-Is is compromised by the lack of clear benefits for health services in relation to current digital health programs when balanced against the levels of resources required to maintain up-to-date records of providers in large facilities with a high number of contracted staff and high turnover. As with utilisation of IHIs, there is a need to identify the future use cases requiring unique provider identifiers and assess the benefits of the HPI-I over other identifiers in use.

The Healthcare Identifiers Service has the potential (and was intended) to operate as the trusted single source of validated identity and credentials for all provider types. This would reduce or eliminate the need for jurisdictions to maintain their own credentialing processes and maintain local provider directories. For this to occur, the Healthcare Identifiers Service has to be completely trusted by jurisdictions as the source of truth for provider information, and there needs to be clarity about the roles of agencies such as AHPRA and the registration boards in maintaining the quality and accuracy of this data within the Healthcare Identifiers Service.

As a unique number—unlike the Medicare provider number, which is location specific—the significant value of the HPI-I will be derived from implementation of electronic communication between providers, such as eReferrals. Without using the HPI-I, and having a single unique identifier for each provider, users will have to manage multiple location-based identifiers. This will increase the maintenance burden and the complexity of confirming credentials. For providers outside the AHPRA registration process, the Healthcare Identifiers Service provides a robust mechanism and the only single point for verifying the credentials of every provider category.

The level of adoption of HPI-Is (and HPI-Os) is not evenly distributed, and there are sectors of the health system that are under-represented, particularly specialists and community and allied health. Engaging these groups and increasing participation in the Healthcare Identifiers Service will be a critical success factor for many digital health programs, particularly those involving models of care that focus on holistic health needs.

Healthcare Provider Identifiers—Organisation

Although a large number of health organisations have established seed and network structures, the risk is that the approach that has been adopted will not be fit for purpose for other initiatives identified in the Strategy.

A broader data governance framework, guidance on optimal seed and network models to support digital health, and improved provider type classifications would improve the strategic utility of HPI-Os.

Healthcare Provider Directory

The Healthcare Provider Directory in its current form is not meeting requirements or delivering the benefits anticipated.

There is not a clear business case for maintaining two separate national provider directories—the Healthcare Provider Directory and the National Health Services Directory. HealthDirect has invested significantly in improving the data governance, privacy and data quality management processes involved in the National Health Services Directory in response to the findings of the review of the National Endpoint Proxy Service and National Health Services Directory, which was undertaken in 2016.

There has been a steady increase in registrations (approximately 160 000 health services in 2018) and access (over 800 000 accesses by consumers each month). The National Health Services Directory uses the FHIR standard to build directory interfaces with approved providers, and this is occurring with vendors across both the acute and primary care sectors.

It is recommended that there be a review of the current approach to directories to investigate opportunities to enable integration between the Healthcare Identifiers Service and the National Health Services Directory. This would enable the Healthcare Identifiers Service to be the source of truth for verified organisation and provider details, and the functionality, utilisation and data governance processes of the National Health Services Directory to be leveraged to improve usability. This would reduce the duplication of infrastructure and maintenance effort and costs.

For this option to be viable, amendment to the Healthcare Identifiers Act may be required. Unless covered by the *Healthcare Identifiers Amendment (Healthcare Identifiers of Healthcare Providers) Regulations 2017* (regulation 9), there is currently no legislative authority for the National Health Service Directory operator to collect, use and disclose provider Healthcare Identifiers unless they were treated as a CSP. This option is not practical given the number of organisations that would be involved.

Section 25D enables regulations to be made to allow prescribed entities to collect, use, disclose and adopt identifying information and Healthcare Identifiers. However, this is limited to purposes related to the provision of health care or to assist people who, because of health issues, require support services—for example, services provided through the National Disability Insurance Agency. If an organisation that enables access to information about health services and to support secure messaging does not fall within the intent of this section, an amendment would be required to support this use.

The other aspect of the Healthcare Provider Directory that limits its potential and utility is the lack of comprehensive coverage of participating providers. For the directory to achieve its objectives, all providers that wish to participate in any digital health program should be required to participate in the directory.

Strategic direction recommendations

It is recommended that:

1. The Agency develop a Healthcare Identifiers Service Strategy and Roadmap within the scope of work to develop a futures roadmap and a national health technology strategy[12] that includes:

   a. a review to ensure the Healthcare Identifier business architecture, both within the Service and within jurisdictional clinical systems architecture, is aligned with future use cases and emerging standards

   b. defined use cases for the Healthcare Identifiers Service to support the scope of the National Digital Health Strategy and Framework for Action, including use cases for permitted secondary uses

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[12] Framework for Action, sections 2.1.4 and 3.2.1, scheduled for 2018–19.

c.   an assessment of the projected impacts of new digital initiatives on the Healthcare Identifiers Service (functionality, volumes, resourcing, levels of availability and cost for both the Service and jurisdictions)

d.   actions to extend uptake and participation among provider groups that are currently under-represented (such as specialists and community and allied health).

2.   The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, and within the context of the planned initiatives in the Framework for Action and futures roadmap:

a.   identify and promote the business case/incentives for broader adoption of IHIs and HPI-I within jurisdictions

b.   review the business model underpinning HPI-Is to clarify the roles of all parties involved in provider identification, the function the Healthcare Identifiers Service performs as the source of truth for all provider types, and the relationship between the provider identification/credentialing process and the provider directory functions.

3.   The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, assess the potential to integrate the National Health Services Directory with the Healthcare Identifiers Service, with the aim of rationalising national directory infrastructure.

If this is endorsed, an amendment to the Healthcare Identifiers Act would be required to enable the Service Operator to disclose HPI-Is and HPI-Os and identifying information to the National Health Services Directory operator and for the National Health Services Directory operator to collect, use and disclose identifying information.

4.   The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, review provisions related to CSP arrangements and consider expansion to organisations that support the delivery of health care or the operation of national infrastructure services related to health care, such as PHNs, prescription exchanges and real-time prescription monitoring services.

Tactical actions

Assessment of optimal implementation models to integrate Healthcare Identifier processes into clinical and patient administration workflows and manage errors

To improve the performance of the Healthcare Identifiers Service, and to help drive the range of benefits originally identified, the collection and resolution of IHIs need to be part of the standard registration workflow and considered part of the core accountabilities of registration staff. Achieving this will be challenging unless there are benefits to jurisdictions, clear incentives for staff to ensure the accuracy of data, and active monitoring of errors and resolution rates. These incentives could result from internal drivers (such as implementation of prescription messaging from outpatients to community pharmacy, eReferrals or data validation to reduce duplicates) or external (such as the requirement to incorporate IHI in national reporting for funding purposes).

As usage of the Healthcare Identifiers Service increases as a result of implementation of opt-out participation in My Health Record, and as other digital initiatives are implemented, there is a risk that failure to monitor and resolve errors could negatively impact both public and clinical trust in digital health.

Reducing and resolving matching errors and data quality improvement need to be a focus, but it will require strategies and a collaborative approach that will not place an unsustainable resource burden on jurisdictions. This may involve transitioning to implementation models that most effectively minimise errors and support timely resolution; more active support by the Healthcare Identifiers Service to monitor and report on specific data issues, enabling jurisdictions to implement more targeted quality improvement actions; or changes to search functions to make it easier to resolve failed matches.

It is challenging to drive improvements in quality with an implementation model where patient registration staff have no visibility of IHIs and the matching and resolution process occurs independently of normal patient workflow. Displaying the IHI to frontline staff, and having errors resolved while the patient is still present, would help to drive data quality improvements, reduce duplicates and reduce matching errors that result in documents not being added to My Health Record. However, this would require a significant change, both to clinical systems that cannot currently support the display of IHIs and to business processes, and would require a business case to progress. While it is a longer-term strategy, as patient administration and clinical systems are replaced or upgraded, the IHI should be included as a core data element. In the short term, identification and implementation of actions to support continued improvement of match rates should be supported through the DHS reporting modernisation program. This program aims to identify data quality trends and further refine matching techniques to support jurisdictions to target particular issues.

Service utilisation—legislative enhancements and clarification

Overall, the Healthcare Identifiers Act provides appropriate legislative support for the intended purposes of the Service as it is currently operating. There are a small number of amendments that would support assignment, collection, use and disclosure for emerging purposes.

Healthcare Identifiers Service—technical environment

The Healthcare Identifiers Service is providing an effective service overall with the current level of demand. However, as there has been increased usage of the Healthcare Identifiers Service to support My Health Record opt-out processes, there have been issues experienced with degradation of service and significant queues of queries. As volumes of transactions increase, the monitoring and timely reporting of any degradation of service to jurisdictions will be critical.

The impacts of potentially rapid growth in volumes of transactions are not clearly defined and are the most significant risk to the Service, particularly in relation to maintaining a level of resourcing capable of meeting required service levels. Provision of a single entry point for support for all national digital health services would facilitate the support process for users, particularly where the cause of the issue is not obvious.

The future impacts of My Health Record re-platforming on the Healthcare Identifiers Service and the impact of the FHIR standard[13] in general—and, specifically, the relationship between the practitioner role defined in the standard and the HPI-I and HPI-O—on the Healthcare Identifiers Service should be assessed. Plans to conform to this standard should be developed in collaboration with vendors and key users of the Service.

Organisational seed and network structures

The interdependencies between HPI-O hierarchies, the impact these have on digital health architecture and the optimal structure to support program functionality need to be clearly articulated to support users to establish meaningful structures when they first register with the Service.

Tactical recommendations

It is recommended that:

5. The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, develop a strategy/business case for data quality that considers:

   a. target quality measures based on an assessment of the level of risk of matching errors / failed matches on digital health programs

   b. alignment between client registration and clinical management workflows and the IHI lifecycle management, from creation of newborn IHIs and management of demographic updates (whether received by health services or by DHS) to retirement of IHIs at death

   c. roles, responsibilities and processes within the Service Operator and jurisdictions / health services to facilitate and streamline ongoing error monitoring and resolution

   d. the level of resourcing required for implementation and ongoing management

   e. a review of the current conformance requirements relating to the frequency and triggers for revalidation of IHIs.

6. The Department of Health consider amendments to the Healthcare Identifiers Act to optimise participation and utilisation of the Healthcare Identifiers Service in line with the original objectives, specifically:

   a. section 12 be amended to enable the Service Operator to collect information directly from an individual for the purposes of assigning an IHI—this will affect individuals who are not eligible for Medicare

   b. an amendment to allow an individual to consent to use/disclosure of their IHI for a purpose not specifically defined by the Act be considered

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[13] Fast Healthcare Interoperability Resources, https://www.hl7.org/fhir/valueset-practitioner-role.html

    c.   section 14(2) of the Healthcare Identifiers Act be reviewed to ensure it is aligned with the My Health Records Amendment (Strengthening Privacy) Bill, preventing use of IHIs for the purposes of insurance or employment

    d.   the limitations on disclosure of HPI-Is and the personal information relating to healthcare providers be reviewed

    e.   the definitions of 'entity' and 'healthcare provider organisation' as defined in section 5 of the Act be reviewed to ensure that incorporated Local Health Network structures are supported

    f.   an assessment of the conflicts between state/territory legislation and the Healthcare Identifiers Act that are perceived to be creating impediments to the disclosure of IHIs for the purposes of management, funding, monitoring and evaluation of health care be undertaken in order to clarify permitted uses.

7.   The Agency and DHS review and update modelling undertaken by DHS and the NIO to assess the projected impact of the transition to opt-out to:

    a.   ensure adequate infrastructure and resourcing is in place to manage the increase in volumes of transactions (IHIs, HPI-Is and HPI-Os)

    b.   assess whether the funding model is the most appropriate and cost effective given the projected increased in volumes.

8.   The Agency assess the impact of the FHIR standard on the Healthcare Identifiers Service, and a plan for conforming to the standard be developed in collaboration with stakeholders.

9.   The Agency review and promote guidelines on recommended organisation structures to best meet the requirements of current and planned digital health initiatives. This should include review and refinement of the provider type classification.

Operational improvements

While the Healthcare Identifiers Service is operating effectively, there are opportunities to further improve processes to continually improve the Service and levels of utilisation.

Stakeholder engagement, training and change management

Participation and utilisation of the Healthcare Identifiers Service could be increased through more closely aligning the role of the Service, and defining how best to integrate the functions of the Service, in the planning, engagement and change management activities of all digital health programs. Engagement and change strategies should focus on creating:

- a consistent understanding of the purposes for which Healthcare Identifiers can be used

- a broader understanding of the Healthcare Identifiers Act and factors to consider when developing local policy

- an understanding of the optimal approach to implementation to fully support health programs

- continuous quality improvement processes to address any factors limiting adoption or utilisation.

At a more operational level, increased engagement between the Service Operator and jurisdictions would be beneficial because it would provide more opportunities for feedback on matching issues, registration, data quality and user requirements to streamline and align the processes and workflow between the Service and the jurisdictions.

Governance

At an operational and management level, the working relationships and governance between DHS and the Agency are generally working effectively.

There would be value in more clearly communicating the roles and responsibilities of each party to ensure that the division of responsibilities and accountabilities for decision-making for policy, user engagement and operational management and user support are clear, to ensure effective and responsive decision-making. Streamlining and clarifying approval paths for change requests would be beneficial to reduce the time frame from specification of the change to implementation.

Technical operation

At the time of the review, understanding of the timing, scope and potential impacts of the My Health Record re-platforming, and the impact of adoption of new standards such as FHIR, on the technical environment of the Healthcare Identifiers Service is still at an early stage. The impact of any changes that may affect the Healthcare Identifiers Service will need to be incorporated into the planning for any future My Health Record enhancement.

Operational recommendations

It is recommended that:

10. The Department of Health implement a process to track the implementation of the recommendations of this review and report to ministers as required.

11. The Commonwealth, working with jurisdictions and in collaboration with key stakeholders, develop resources to assist in interpretation of the Healthcare Identifiers Act and optimal use of the Healthcare Identifiers Service, such as:

    a. an online learning module on the Act and its interpretation

    b. policy development toolkits

    c. training of client registration staff that specifically addresses Healthcare Identifiers Service requirements to raise awareness

    d. educational tools for use in staff training, incorporating clinical use cases demonstrating quality and safety consequences relating to patient identification processes.

12. DHS provide a test/training environment that would allow the Agency to test the full end-to-end process to support development of accurate educational and support materials.

13. DHS, in collaboration with the Agency, continue their engagement with jurisdictional and other Healthcare Identifiers Service users:

    a. in the definition of requirements for the modernisation program

    b. through monitoring and providing feedback to users on data quality

    c.   on options to streamline registration processes for providers and organisations to increase uptake

    d.   to monitor match rates and, in collaboration with end users, identify opportunities for further enhancement.

14. The Agency and DHS clarify governance roles and responsibilities and communicate this to all stakeholders.

15. The Agency define measures for, and include reporting on, degradation of service in future SLAs with the Service Operator.

ATTACHMENT 1: GLOSSARY

TERM	DEFINITION
Compliance, Conformance and Accreditation	A national program to ensure health information systems participating in the Agency's program of work meet community expectations for quality and safety.
Document Verification Service	A national online system that allows organisations to compare a customer's identifying information with a government record.
Fast Healthcare Interoperability Resources	A standard for the electronic exchange of information between health systems.
Healthcare Provider Directory	A consent-based directory of professionals and business details of healthcare providers.
Health Professional Online Services	An online portal provided by DHS for health professionals for a range of purposes, including e-Health.
Intergovernmental Agreement	The agreement supporting the governance, performance and accountability of the Australian Digital Health Agency.
National Authentication Service for Health	Australia's first nationwide secure and authenticated service for healthcare delivery organisations and personnel to exchange sensitive e-Health information.
Organisation Maintenance Officer	Employee of seed or network organisations with operational responsibilities with regards to the Healthcare Identifiers Service.
Public key infrastructure	The infrastructure required to create, manage, distribute, use and revoke digital certificates and to authenticate access to e-Health programs.
Responsible Officer	Individual within a seed organisation nominated to act on its behalf in any interactions with the Service Operator.
Service Level Agreement	An agreement between two or more parties to ensure and measure the levels of achievement against commonly agreed criteria.
Secure Messaging Delivery	An e-Health program of works around the technologies of unique identification, authorisation and message security to provide the safest and optimally secure method of exchanging healthcare information.
Trusted Digital Identity Framework	A set of rules and standards that accredited members of the digital identity federation must follow to ensure a safe, secure and consistent way to use government services online.

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ATTACHMENT 3: REFERENCES

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