NSW HEALTH SUBMISSION

National Digital Health Strategy Consultation

Digitally-enabled, patient-centric, better value health care

February 2017

Executive Summary

Technology has the power to transform the way we deliver health services, and is a critical enabler of better health outcomes for Australians. Technology can help meet the growing demands on our healthcare system by providing integrated, patient-centred, smart and future-focused solutions. A strong national direction of digital health will be key to unlocking the potential of data and technology for health care.

Alignment and partnerships between jurisdictions, local health networks, clinicians and patients will be critical to deliver the national digital health agenda and work program. Many jurisdictions already have a significant program of digital health activities already underway, that could support development and implementation of a National Digital Health Strategy. In NSW, the *eHealth Strategy for NSW Health 2016-2026* provides a 10-year framework of innovation and investment for a digitally enabled and integrated health system, with a focus on patients and quality outcomes.

The Commonwealth Government committed under the 2016 COAG Heads of Agreement on Public Hospital Funding to accelerate the national roll out of My Health Record as part of its role in reforms to primary care. NSW is well placed and ready to support this rollout and the national digital health work program more broadly.

Digital health technology encompasses a diverse range of solutions, including broadband connectivity, software, digital networking, big data, mobile connectivity, 3D printing, smart infrastructure and artificial intelligence. The Australian health system needs to be agile and responsive as use of technology becomes more widespread and new tools emerge and change how we manage our health and deliver healthcare. NSW recommends three key focus areas for the National Digital Health Strategy:

1. **Integrating and personalising services** – by increasing the uptake and use of My Health Records, and using eHealth solutions to better integrate health and social services.
2. **Empowering consumers** – by embracing and integrating the use of health information technologies in the health system.
3. **Creating an intelligent and responsive health system** – through the use of 'big data', predictive analytics and innovation.

NSW welcomes the opportunity to work with the Australian Digital Health Agency, consumers and clinicians to develop and implement a National Digital Health Strategy to serve the current and future health needs of Australians.

Digital Health in NSW

The NSW Government sees a vital role for digital health in enhancing patient care, and has a strong commitment to eHealth initiatives. NSW is recognised within Australia and internationally as having a sophisticated and effective eHealth system, particularly in areas such as electronic patient, medical and medication records, digital imaging and systems connectivity.

NSW Health has invested systematically in digitising state-wide health infrastructure and systems through its *eHealth Strategy for NSW Health 2016-2026*. The Strategy provides a 10-year program of investment, innovation and implementation to guide NSW Health to deliver world-class, eHealth-enabled healthcare services across the state. The 10-year program incorporates short, medium and long-term activities, starting with building consistent foundations on which to integrate and personalise health services.

An important element of the NSW approach has been robust privacy and security measures. eHealth NSW has established a Health Security Operations Centre to protect, detect and respond to threats against the system and ensure security controls are embedded into ICT initiatives, in line with NSW and Federal Government security requirements.

NSW welcomes the opportunity to share its experience in implementing digital health enablers to support work led by the Australian Digital Health Agency.

Priorities for the National Digital Health Strategy

A National Digital Health Strategy (National Strategy) will be important to provide direction and set clear expectations for the integration of digital health approaches across GP, specialist, hospital and allied health services. The National Strategy should allow for local flexibility and opportunities for innovation, management and delivery in meeting those expectations and integrated services, recognising the need for digital health to make sense for local communities and patients.

The National Strategy should be underpinned by a set of core principles to guide the design of digital health tools and services. NSW recommends the following principles:

- **Patient-centred** – Patient needs are front and centre of any digital health solutions.

- **Clinical engagement** – Clinicians have an active role in designing solutions.

- **Delivery through partnerships** – Partnering with States and Territories and Local Heath Networks to design and implement digital solutions.

- **Accessible and user-friendly** – Digital health solutions are easy to understand, access and navigate.

- **Safeguarding security & privacy** – Patients' rights to privacy and security of personal data are protected.

- **Effective change management** – Implementation is supported by user engagement strategies and training, and ongoing functional and technical support.

NSW recommends the inclusion of three focus areas in the National Strategy:

1. Integrating and personalising services

My Health Record – a shared platform for individual health information

My Health Record has enormous potential to benefit clinicians and consumers by allowing patients, clinicians and hospitals to view and share health information between care settings. This will support care integration and patient participation.

NSW is supporting the Commonwealth to increase the uptake and use of the My Health Record with an opt-out trial in the Nepean Blue Mountains Primary Health Network region. The trial was conducted between March and October 2016 and involved 440,000 participants. The NSW experience has been positive, with patients and clinicians reporting increased uptake, use and benefits in delivery of patient care. NSW Health notes the considerable momentum gained from the opt-out trial, and considers it important to maintain momentum as the Commonwealth Government works towards national roll-out of an opt-out model.

Given the success of the trial in NSW and the strong interface between My Health Record and NSW Health's HealtheNet system, NSW is well placed to support the national digital health agenda through a state-wide rollout of the My Health Record on an opt-out basis from 1 July 2017, provided sufficient funding is available to support implementation and adoption. NSW Health looks forward to collaborating with the Commonwealth in implementing its commitment, under the Heads of Agreement on Public Hospital Funding, to accelerate the national rollout of My Health Records and will continue to champion early implementation and uptake of the platform in NSW. As demonstrated through the opt-out trial, at-scale implementation has the potential to deliver significant benefits for patients and consumers.

My Health Record has the capacity to change the way health services work in partnership for better health, right from the start (birth). Commencing a My Health Record from birth would provide a single comprehensive lifetime health record that is accessible across continuum of primary, secondary and tertiary health care.

It is essential that My Health Record includes processes for regular reviews and updates to improve its quality and functionality, including through clinical and patient-reported feedback. My Health Record provides a strong base with which to build on other shared care digital tools to enable integrated and personalised services, such as digital shared care plans, secure messaging and e-referrals. Data collected from My Health Record and other shared care platforms will contribute significantly to the evidence base for service improvements.

Case Study: Digital Access to Patient Information – HealtheNet

In 2016, HealtheNet was implemented across the state to deliver a web-based portal providing clinicians with an integrated view of clinical information across all NSW hospitals, and patients with the ability to access and view their personal health information online via the National My Health Record. As of January 2016, 4.3 million local hospital discharge summaries were available in the HealtheNet Clinical Portal.

For example, if a patient presents to the Emergency Department, doctors can now open the patients' chart in the Electronic Medical Record (eMR) and through the link to HealtheNet can access previous discharge information and diagnostic imaging at the point

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of care. Clinicians can also refer to a patient's diagnostic images captured across NSW by accessing the NSW Health Electronic Image Repository. Accurate and immediate access to clinical information is vital to support the delivery of effective and safe healthcare services, particularly in regional and rural settings.

Digital tools to support health, social and aged care integration

All levels of government are examining how they can facilitate better coordination of care across various sectors and integrate services around a person's needs. Development and implementation of a National Digital Health Strategy presents opportunities for greater health, social and aged care integration, including consideration of:

- Establishing a unique National Disability Insurance Scheme (NDIS) identifier and National Minimum dataset for use across the health sector and in a non-health context, to better understand participant pathways and participation in Government services for the purposes of care coordination, service planning and provision, claiming, reporting and evaluating.

- Currently, there is currently no mechanism for identifying NDIS participants in jurisdictional health information systems or in any government information systems. The identification of NDIS participants beyond the disability sector will be particularly important to support the provision of wrap around care for participants that will require ongoing care from multiple service systems at the same time.

- Ways to make it easier for people to access and manage services delivered by multiple government agencies, through integrated online platforms.

- Secure mechanisms for connecting data and information across different health, social and aged care services that one person may use (e.g. NDIS, child protection, residential aged care and social housing), with robust consumer protections, to improve their overall service experience and better understand their 'health pathway' at a patient and population health level.

- Development of a linkage between the My Aged Care central client record and My Health Record provides an opportunity to realise holistic integrated care across settings for the older person receiving in-home or facility-based aged care services.

Case Study: 'Single Government' Approach - New Zealand

New Zealand wants to provide 'integrated services' to citizens proactively, by making life events like childbirth the focal point for joined-up government. Digital transformation and information sharing critical enablers for this.

New Zealand is working towards a 'single government' approach that can proactively provide government services in response to changes in people's lives. Proactive delivery is about recognising when peoples' circumstances change, based on linked digital records or information within the government agencies (or entities working with Government) and automatically providing any entitlements or services that may be available to support them.

Currently the Government has information about people's circumstances stored in multiple databanks, but people have to stand in another line, call another call centre, then fill in

another form. The NZ Government is trying to tip this on its head by making entitlements completely available at the time and place when people are eligible for them - so that the system is truly citizen-centric and proactively delivered in response to the changing affairs of citizens. The birth of a child is the first life event chosen as a focal point for integrated services, which are being developed based on customer journey mapping.

Case Study: Centre for Health Records Linkage (CHeReL)

The NSW Centre for Health Record Linkage (CHeReL) helps researchers, planners and policy makers access linked health data about people in the NSW and ACT. CHeReL host a secure, high performing data linkage system - one of the largest of its kind in Australia. Record linkage allows a more complete picture of the health of the population than was previously possible. The information can be used to study:

- the safety, quality and costs of health care by linking information on different treatments with outcomes such as emergency department visits, admissions to hospital and deaths
- the relationships among personal, economic and lifestyle factors and health through linking data from research studies and surveys with outcomes such as emergency department visits, admissions to hospital, cancer notifications and deaths, and
- societal and community influences on health by linking health data with information from other agencies, such as education and community services.

NSW Recommendations

- Progress with the rollout of the My Health Record opt-out approach, commencing with state-wide implementation in NSW.
- Investigate opportunities to commence a My Health Record from birth.
- Progressively improve the quality and functionality of My Health Record for optimum use by clinicians and consumers.
- Establish a unique identifier for NDIS participants, for use across the health sector and in a non-health context.
- Investigate opportunities for an integrated online platform so that people can more easily access and interact with multiple government services.
- Establish foundations for secure linkage of health, aged care and social services information and data, including linking My Aged Care client record with My Health Record.

2. Empowering consumers

Improving health literacy and access to health information and services through digital technology

Technology is helping consumers better manage their own health care and achieve their health goals by enabling more efficient and effective access to right care, at the right time and in the right place. Consumers are increasingly choosing to use the telephone, internet and other rapidly advancing digital technologies to access health services, information and

support 24-hours a day, 7-days a week. Evidence shows that supporting consumers to improve their health literacy can improve their health outcomes[1].

Mobile apps, wearable technology and social media are increasingly becoming the first point of contact with health information. However, many consumers are not aware of the effectiveness of these tools. There is potential for the data collected through these tools to be integrated with system-wide records, such as My Health Record, to predict health outcomes and provide more accurate and proactive services and support.

Digital solutions provide a unique opportunity to provide personalised, predictive, low-cost, accessible and live health information to consumers when they need it, so that consumers can be active in managing their own health. Governments can play a stronger role in embracing health information technologies and supporting consumers in using them to achieve a healthier lifestyle. For example, in October 2016 the Victorian government introduced the [Healthy Living Apps](#) ratings guide to help users understand more about health and wellbeing apps and support users make informed choices in terms of app functionality and effect on behaviour change.

Other national organisations, such as Health Direct Australia, already play a significant role in using digital channels to provide consumers with access to health information and services, including directories, symptom checkers and video-consultations. Healthdirect has procured health information and call centre services to include 'build and develop' type activities such as the National Health Services Directory and the My Aged Care gateway. These digital channels are increasingly being integrated with traditional health service providers such as Ambulance and Emergency Departments. Given this significant investment to date, the National Digital Health Strategy should recognise Healthdirect Australia as an important resource to be leveraged in the pursuit of improving health outcomes for Australians through the delivery of digital healthcare systems.

> **NSW Recommendations**
> - Support consumers through My Health Record and other tools to better understand the clinical effectiveness of health information technologies.
> - Investigate opportunities to integrate health information and data from information technologies, such as wearable devices and apps, with Government-held records and data.
> - Explore opportunities for collaboration with other national organisations such as Health Direct Australia to provide timely, relevant information to consumers.

3. Creating an intelligent and responsive health system

Building learning systems

Open information and access to 'big data' is rapidly changing our understanding of effective healthcare and disease. By harnessing the power of 'big data' and predictive analytics we can create a health system that is continually learning, evolving and providing better value

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[1] De Silva D. *Helping people help themselves*. London: The Health Foundation, May 2011, www.health.org.uk/publications/evidence-helping-people-help-themselves

care, thereby allowing evidence-based decision-making, insights and improved organisational performance.

Embracing a learning system could enable the health system to move away from the reactive treatment of disease and illness, towards more personalised, predictive, preventive and participatory (P4) healthcare. This would mean that data collected through the My Health Record, diagnostic tests, health apps and other tools is integrated and analysed to help health systems, clinicians and patients to understand risk factors and counteract them through targeted services and treatments. Linking data across various sources will also be a valuable health research resource to help us understand complex health and disease pathways by providing a more complete picture of health at a patient-level and across a population. The effective flow of 'big data' and information across the care settings and jurisdictional will be central to the success of P4 healthcare and a critical enabler for provision of safe, patient-centric care in Australia.

Enabling the timely flow of information through digital mechanisms, such as secure messaging, has the potential to transform the way health services are organised and provided. The role that the Agency plays in setting interoperability standards and developing secure platforms for exchange of clinical and patient information will enable accelerated development and uptake of electronic referrals and scheduling, electronic prescribing and other high volume health transactions.

The use of new digital solutions and big data must be supported by robust policies, standards, governance frameworks, legislation and assessment processes to ensure digital services and products are safe, secure and good value. Currently, advances in health technology are a major driver of increased health spending. Rigorous assessment and evaluation processes will enable policy makers and managers to make the most out of effective new technologies, protect patients and make wise investment decisions.

Driving innovation

The recent and rapid development of technologies has dramatically changed our lifestyles. Digital disruptions such as use of smart devices, potable diagnostics, implant drug delivery and genome sequencing are on our doorstep. This era of disruptive innovation has the potential to fundamentally change the way we manage our health, deliver health care in Australia and address some of the long-term strategic issues in Australia's health system.

To capitalise on the opportunities, Governments need to find a way to embrace promising new technology, become more adaptive to disruptive innovation and play a greater role in promoting innovation in the health care sector through partnerships with the private and not-for-profit sector. By building on existing partnerships and supporting new collaborations between healthcare providers, technology companies and patients, we can unlock the potential of data, technology and digital products to create smarter, better value, outcomes-driven healthcare.

Government-supported innovation, through the National Digital Health Strategy and through State-sponsored innovation initiatives, such as those set out in the eHealth Strategy for NSW Health, could involve support for startups, entrepreneurs, private sector and non-government to encourage new health care approaches. For example:

▪ *Grants or seed investment (potentially in return for equity) for digital health startups* – for building, testing and/or scaling.

▪ *Partnerships with accelerators and incubators with a focus on digital health innovation* – support provided through data collection and analysis, customer insights, mentoring, business development, measuring impact and testing to build clinical evidence and scaling.

Case Study: Government Driven Innovation – NSW Government

Jobs for NSW is supporting and expanding the startup ecosystem through grants for high-potential new businesses and partnerships with incubators and accelerators:

- *Minimum Viable Product Grants* are for promising startups that are not yet generating revenue. Grants of up to $25,000 are available to help startups gather feedback from customers and test business models.
- *Building Partnership Grants* are for startups that are already generating revenue. Grants of up to $100,000 are available to fund partnerships or projects that will accelerate market adoption.

NSW Recommendations

▪ Build the predictive analytics capability in the health system to enable a move towards more personalised, predictive, preventive and participatory healthcare.

▪ Accelerate secure messaging projects and development and implementation of interoperable systems in health to enable electronic referrals, electronic prescribing and other digital capabilities for a modern, highly connected health system.

▪ Consider optimum governance, health technology assessment and monitoring/evaluation processes to inform investment and decision-making.

▪ In conjunction with State-based innovation programs, provide opportunities and support for startups, entrepreneurs, the private sector and non-government to encourage new health care innovation through seed investment and government supported incubators.