

Queensland Government response to consultation questions to inform the National digital health strategy

The Queensland Government welcomes the opportunity to respond to the Australian Digital Health Agency's (the Agency) public consultation on the national digital health strategy (the Strategy). The Strategy will be critical for setting out the national coordination, investment and collaboration in national health information and digital health solutions, as well as provide guidance to the state and territory governments on the national strategic priorities.

Responses provided below were drawn from feedback provided by a range of Queensland Government agencies as well as from the draft *Digital Health Strategic Vision for Queensland 2026* (the Queensland Strategy). The Queensland Strategy will provide a vision for the system-wide digital enablement of the public health system in Queensland, outlining the role of digital health in achieving *My Health, Queensland's Future: Advancing health 2026* (Advancing Health 2026)—available at <https://www.health.qld.gov.au/publications/portal/health-strategies/vision-strat-healthy-qld.pdf>

The *Heads of Agreement on Public Hospital Funding*, signed by the Commonwealth and the states and territories on 1 April 2016, recognises that all governments have shared responsibility to integrate systems to improve health outcomes for Australians acknowledging the critical role of interoperability for the health system. The Strategy will need to be clear in its delineation of accountabilities required to realise the national vision, and should clearly articulate the roles and responsibilities of jurisdictional health departments, industry, research organisations and other stakeholders.

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1	How would you like to see digital technologies change peoples' experiences of managing their health, and the way they interact with the healthcare system?	<p><i>Patient engagement and empowerment</i></p> <ul style="list-style-type: none"> • Digital technologies have the potential to open up extensive personal health management possibilities, enabling people to take control of their health and wellbeing, and crucially, to assist in management of chronic conditions. • There is an increasing appetite in the community to use a variety of health related websites, mobile applications and wearable technology. However, individuals who choose not to engage digitally should not be disadvantaged. Currently about 15 per cent of the Australian population do not use the internet, with level of access and use lower among people in remote regions, indigenous populations, those aged over 65 years or with disability and low-income households. Significantly, these groups are more likely to have poorer health outcomes - chronic or serious health conditions or disability, and/or lower life expectancy - than the general Australian population. • A 'one stop shop', supported by information sharing protocols, will help individuals manage their health and allow health professionals to support consumers/clients' choices about how their personal information is shared. • Tools and applications, which can help empower people and assist them to manage relationships with healthcare providers include: <ul style="list-style-type: none"> – full information on medical conditions, care needs, medication history, past consultation notes, details of medical practitioners and advance care directives accessible by patients on their smart devices so that they can fully inform treating healthcare providers at the point of care – provision of out-of-facilities care (e.g. videoconferencing in patients' homes) – remote monitoring systems to help older populations live independently at home (e.g. automatic alarms to health professionals, reminders to take medications and the ability to perform wireless check-ups and communication) – reminder systems alerting when prescriptions and regular check-ups are due – online appointment booking and forms systems – tracking of referrals, specialist appointments and position in the waiting list – health service directory information on medical facilities and service offerings in the local area, including emergency department wait times – various platform agnostic apps teaching people about their wellbeing with

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		<p>ability to track progress in relation to physical activity, diet and drinking/smoking habits, vitals and health conditions</p> <ul style="list-style-type: none"> - virtual communities for exchanging health and wellbeing information - push notifications on key health information to raise general awareness about various health issues or distribute specific health warnings. <ul style="list-style-type: none"> • There is a need for campaigns that communicate the benefits of adopting digital health systems, such as My Health Record system, as well as provide information to assist individuals to use the system and give assurances about the security of personal information. For example, community based leaders and advocates should be encouraged to become champions of digital engagement and empowerment. <p>Digital technologies improve access and inclusion</p> <ul style="list-style-type: none"> • Technology solutions should be shaped through consultation and collaboration with communities and clinicians, and where appropriate tailored to specific groups to help them navigate the healthcare system and identify opportunities for clinical innovation. • Technologies should be accessible to everybody, be user-friendly and intuitive and available on all commonly used platforms and devices. Easy to use technologies will increase motivation and adoption. According to research by the Good Things Foundation, basic digital skills lead to fewer visits to the doctor and consequent cost savings to the individual and the government. In the United Kingdom, based on a cost to the National Health Service of £45 per GP visit, ensuring everyone had the basic digital skills to access health information online would provide savings of around £120 million a year by 2025 (https://www.goodthingsfoundation.org/sites/default/files/research-publications/improving_digital_health_skills_report_2016_1.pdf). • Solutions need to be culturally appropriate for indigenous people, accessible by rural/remote communities, designed to provide appropriate digital options for people with disability, people who are linguistically diverse and different age groups. Consideration should be given to specific and potentially vulnerable groups, such as helping young people transitioning from care to understand how participation in digital health systems will help their wellbeing. • As discussed above, the preferences of all groups should be considered, including those not able to or choosing not to engage digitally, to ensure no one is disadvantaged and the same level of care is provided across the health system. <p>Aboriginal and Torres Strait Islander persons population</p> <ul style="list-style-type: none"> • Particular consideration should be given to the opportunity for technology to support closing the gap between Australia's Aboriginal and Torres Strait Islander people and the general population. • By tailoring models of care, technology could be used to improve opportunities to connect patients with clinicians and provide culturally appropriate information and tools to help address existing challenges associated with health literacy, high comorbidities, higher rates and earlier onset of chronic disease. • The sharing of information and data across the My Health Record system may help improve the diagnosis and self-management of Aboriginal and Torres Strait Islander people with complex health conditions (e.g. individuals who do not have a nominated general practitioner (GP) and/or who are transient).
2	What gets in the way of health professionals	The pace at which new technologies are adopted is often slow. Technology is often perceived as simply a tool, rather than something that can transform the way health professionals do their jobs.

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	being able to connect, communicate and coordinate with the right people?	<p>Silos and technology constraints</p> <ul style="list-style-type: none"> • Nationally coordinated investments in digital technologies should provide holistic solutions that break down silos of information. • Issues that need to be addressed include: <ul style="list-style-type: none"> – a general lack of interoperability and integration between healthcare providers (across the public and private healthcare sectors) that prevent health professions from effectively communicating with the right people; – differing levels of technological capability to support health service delivery in metropolitan, rural and remote areas (across the public and private healthcare sectors); – health professionals across Australia frequently have to work with outdated systems (which can result in duplicate data entry), lack equipment (including access to video-conferencing, computers, et.), experience poor internet connection and are bound by paper-based processes. <p>Constraints in rural and remote areas</p> <ul style="list-style-type: none"> • Digital transformation of the health system should be a key enabler: providing connected care across service providers; overcoming issues of distance and isolation; and having a great potential to improve services and provide better outcomes in rural and remote setting. New technologies should help address the challenges of working in rural or remote locations, such as being isolated from their clinical networks and frequently having to rely on passive aids such as online or printed guidelines to support clinical decision-making. <p>Workforce capability and other constraints</p> <ul style="list-style-type: none"> • It is recommended a national workforce capability strategy be developed to address concerns relating to resistance to change, risk adversity and fear of loss of role to help adoption of new technologies and digital health tools • Such a strategy should empower health professionals to stay at the forefront of developments – enabling health professionals to constantly seek out ideas for how digital innovation and technology can streamline processes, increase productivity, improve the overall consumer/client experience and reduce risk of errors in diagnosis. • Workforce capability is a major constraint when new technologies are introduced (particularly in rural/remote areas) and the strategy should address issues such as: <ul style="list-style-type: none"> – training to increase awareness of the available resources and systems as well as enhance the use of individuals to use the available technology – health professionals being time poor and additional training commitments may be considered as lower priority, which can considerably slow down adoption and full implementation of new systems – workforce capability constraints are intensified in areas where there is a transient workforce and healthcare workers are required to adapt to different systems and/or versions of software at each new location.
3	What do health professionals need to be able to effectively connect, communicate and coordinate	<p>Access, interoperability and better quality data</p> <ul style="list-style-type: none"> • Health professionals (across the public and private healthcare sectors) should have real-time access on their preferred device to all relevant patient health information (common set of patient records). In addition, they should have ready access to the necessary systems to work collaboratively with other health service providers to make fully informed decisions on the best care for consumers/clients and help provide coordinated and connected care. • All patient data should be recorded in an electronic medical record and accessible from a data warehouse using business intelligence tools to view information about the care and treatment patients are receiving. This improves clinical decision-

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	with the right people?	<p>making, eases stress on systems, reduces delays and unnecessary duplication of tests, and has the potential to reduce errors in diagnosis.</p> <ul style="list-style-type: none"> • New technologies should lead to a system that is constantly improving patient care through the intelligent use of data and analysis to deliver a learning healthcare system. It should provide health professionals with a clear understanding of health pathways across care settings and the importance of nationally consistent terminology as well as the ability to easily enter data at the point of care and subsequently access the system to improve data quality and reliability. • Subject to the appropriate level of consent, health professionals should be able to use secure messaging delivery platforms to reliably and seamlessly share patient information across acute and primary care settings (including public and private providers). This functionality should allow for secure electronic sharing of discharge and other summaries to facilitate clinical handover and timely discharge planning (e.g. specialist medical services, aged care facilities, homeless shelters). • Clinical decision making is enhanced by access to real-time information, advice and guidance through information systems, but also from relevant clinical networks and specialists who use and contribute to real-time information systems. <p>Modern tools</p> <ul style="list-style-type: none"> • Health professionals need ready access to and funding for contemporary and reasonably priced desktop tools, devices and business solutions that offer increased automation, workflow and workforce mobility (e.g. national high-speed broadband, consistent and ready access to video-conferencing equipment, close-up cameras, portable/mobile and other devices as well as training for digital skills). • Other tools that would help health professionals include: <ul style="list-style-type: none"> – granular service directories and related tools (i.e. wait times/time to emergency, suggestions for alternative services) to help manage referrals and integrated care – consistent patient and provider identity management – legislative instruments that enable secure sharing of information. <p>Collaboration between agencies</p> <ul style="list-style-type: none"> • The Strategy should outline how it is proposed that a more holistic and customer centred approach be established that is supported by appropriate legislative and policy measures across local, state and federal government agencies. • Benefits to be achieved should include: <ul style="list-style-type: none"> – subject to appropriate consent, sharing relevant information about customers/clients to reduce administrative burden across agencies – information sharing protocols across government agencies' (local, state and federal) to foster a partnership approach across government – creating a digital health environment that will help multi-disciplinary case management with timely follow-ups and will strengthen pathways between the healthcare service systems and other service systems for priority populations (e.g. welfare, social services, housing, disability, child safety, aged care) – establishing connectivity with systems such as the National Disability Insurance Agency's referrals or My Aged Care to strengthen pathways between the healthcare service systems and other service systems.
4	What are your organisation's priorities in respect to digital health or eHealth?	<p>Queensland eHealth investment strategy</p> <ul style="list-style-type: none"> • Queensland Government's priorities in respect to digital health are outlined in the Queensland eHealth investment strategy (available at: https://publications.qld.gov.au/dataset/ehealth-investment-strategy). <p>Digital Health Strategic Vision for Queensland 2026</p> <ul style="list-style-type: none"> • The Queensland Strategy provides a target for the health system stakeholders to

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		<p>aspire to when considering their digital health initiatives and investments over the next three to ten years. These goals will enable a digital health system that will deliver on the vision of Advancing Health 2026 as well as achieving the desired digital health outcomes.</p> <p>Queensland specialist outpatient strategy – Improving the patient journey by 2020</p> <ul style="list-style-type: none"> The Queensland specialist outpatient strategy (available at https://www.health.qld.gov.au/publications/system-governance/strategic-direction/specialist-outpatient-strategy.pdf) identifies 11 key areas for improvements in the patient journey, many of which are closely related to digital health. <p>The Queensland digital infrastructure plan (under development)</p> <ul style="list-style-type: none"> The Queensland digital infrastructure plan (QDIP)—under development—will provide a strategic infrastructure strategy which supports one of the priorities in the State Infrastructure Plan (http://www.dilgp.qld.gov.au/infrastructure/state-infrastructure-plan.html) – ‘deliver a safe, equitable and sustainable healthcare system through a focus on technology’. As a priority for the Queensland Government, the QDIP will inform future regional planning and investment opportunities of digital infrastructure in Queensland through the examination and gap analysis of current digital infrastructure. The QDIP may assist the Queensland Government infrastructure delivery agencies (including Queensland Health) to take advantage of smart technologies across each asset classes. It is intended that principles of the QDIP will provide a framework that may be integrated into future sectoral strategies and plans.
5	How could data and technology be better used to improve health and wellbeing?	<p>Access to clinical and administrative data that is easily accessible through the use of newer business intelligence technologies allows decision makers to identify opportunities to improve current services that promote value and better outcomes.</p> <p>Big data</p> <ul style="list-style-type: none"> In healthcare, complex and innovative analytics of ‘big data’—defined as high volume, highly variable information about people and the environment—can be particularly beneficial to improve the overall quality of life, address the burden of disease and preventable deaths and even predict epidemics. Better access to ‘big data’ can highlight specific threats, issues and patterns in behaviours, enabling sophisticated predictive modelling and increase quality and safety leading to better identification of problems and improvement to system performance. This improves targeted management and preventative programs for individuals, whole communities, segments within a community or particular areas of burden of disease. These benefits can be further enhanced by communication and reporting, helping to generate community awareness which can then promote better wellbeing and self-empowerment. At an individual level data and technology can be used in a myriad of ways, both in terms of better informing a patient of their current health and also in terms of their future prognosis. For example: <ul style="list-style-type: none"> people can monitor their well-being, upload their data and compare themselves with other people with similar conditions or in their community increase in motion sensing technologies and implanted devices with ‘back to base’ capabilities (and potentially upload into My Health Record system for ongoing monitoring) will have a material impact on those with chronic conditions with the added benefit of reducing the costs of healthcare when shared and combined across healthcare systems and health providers, personalised care planning is improved as are the decision making capabilities of clinicians and other health professionals.

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		<p>Genomics</p> <ul style="list-style-type: none"> One area where technology is increasingly being used to improve health is the mapping of the human genome, which allows the practice of medicine to become more personalised. As the cost of genomic sequencing decreases, its use will increasingly assist in the test screening and diagnosis of disease, tailoring treatments to individual patients and enabling increased research into genome-wide association studies, which will result in more effective treatments and practices. <p>Telehealth</p> <ul style="list-style-type: none"> Continued investment in expanding the suite of telehealth services means that patients can receive specialist care closer to, or in the home, which has numerous benefits to both the patients and the health system. In Queensland telehealth is already widely accepted, connecting rural and remote communities with health practitioners. Practitioners can also connect with each other to share and discuss clinical practices and treatments. Telehealth reduces the need for face to face visits and opportunities exist to increase the scope (e.g. also include aged care and ‘hospital in the home’) and expand the reach of telehealth services even further seeking to offer it as a routine option (especially chronic disease management). It is essential that health professionals have access to the necessary tools to offer telehealth services and training to use the equipment.
6	What are the barriers or obstacles to innovation in health and care?	<ul style="list-style-type: none"> Queensland recommends a national review of legislative requirements across the board, some of which is still designed for a non-digital era and is preventing or limiting data sharing. Areas that need consideration in particular include governance around privacy of information on mobile technologies, outdated requirements for records management practices, quality controls for electronic documentation and appropriateness of access by relevant professionals as well as nominated carers. There is considerable resistance to the unknown and mistrust of new technologies in the community. This leads to concerns and constraints relating to information security, loss of privacy and confidentiality, in particular when data is exchanged across government agencies (local, state and federal) affecting the capacity to complete end-to-end linked services. Furthermore, one of the main barriers to digital innovation in healthcare is that digital advances are being seen as information technology projects, rather than projects to improve healthcare.
7	What opportunities would you prioritise in respect to innovation in health and care?	<ul style="list-style-type: none"> Pursuing innovation by developing and capitalising on evidence and models that work, promoting research and translating it into better practice and care is one of the directions in Advancing Health 2026. The health system relies on highly skilled staff to make clinical and management decisions – innovative digital technologies must be developed in consultation with clinicians in order to support best practice clinical decision making and outcomes. Digital innovation is a key enabler for advancing healthcare for consumers, clinicians and the community. One of the key principles underpinning all digital initiatives in Queensland is focussed on innovation by building the foundations for change to capitalise on opportunities and remove barriers to innovation. One of the most pressing priorities is to improve interoperability, integration and secure messaging capability of the various systems (with appropriate privacy parameters) of public and private organisations to share data, which is critical for providing coordinated and connected patient care.

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		<ul style="list-style-type: none"> • In order to meet greater information sharing requirements, priority should be given to a scalable, information-sharing capability that is open-standards based, reliable, flexible and allows interoperability between new and existing systems. An information interoperability platform will enable information sharing to be leveraged in a more efficient, flexible and agile manner that will help to reduce costs, improve the quality of patient care, and support technical, corporate and clinical innovation. • Consideration should be given to co-designed healthcare, to develop a culture of thinking where consumers, clinicians and community are always at the centre of the evolving health system. A particular effort should go into learning from customer insights and partnering with them to co-design digital solutions to help deliver personalised, predictive and joined up services. • A further effective strategy to encourage and support digital innovation is the creation of collaborative 'testbed environments' where clinicians, IT project staff, industry and research organisation can develop, pilot and evaluate innovative technologies to encourage 'fast fail' projects without adversely impacting 'business as usual' projects.
8	What would you like the system to do to make the My Health Record more useful for you?	<ul style="list-style-type: none"> • Over time, as the amount of clinical information in the My Health Record increases, the reliance by clinicians and patients on the record, as a richer source of patient related information will also increase. The increased use of internet based portals will provide healthcare consumers with the capability to access their healthcare information including their own medical record. • The main issues raised by health professionals in relation to the current status of the My Health Record relate to its lack of current content, integration issues with other systems, accessibility and useability. • It has been raised that there is too much focus on GPs in the current the My Health Record system. More effort is therefore required to work with the rest of the healthcare sector to identify what they would find useful and need from the My Health Record system, which will help improve content, adoption, usage rates and useability of the system. <p>Content and integration issues</p> <ul style="list-style-type: none"> • There should be continued focus to increase usage of the My Health Record to facilitate enhanced community awareness and uptake. This should include development of consumer apps accessible from mobile devices that link with data on the My Health Record, more targeted campaigns to increase awareness of the My Health Record and its evolving role in healthcare as well as assistance to those experiencing digital exclusion. • There should also be continued engagement with the healthcare community in order to ensure all relevant patient information (including advanced care planning documents, outpatient letters, referrals, etc.) is recorded accurately. In particular, more effort is required for clinical handovers to be recorded and uploaded in timely manner. • Shared health summaries provide the key health information for patients. It is acknowledged that since the eHealth Practice Incentives Program (ePIP) commenced, significantly more summaries have been uploaded; however, it is still unlikely if a healthcare professional looks at a patient's My Health Record that there will be clinical records available. • As the My Health Record is intended to be the platform for a shared care/single care plan amongst healthcare providers, it is important that clinical systems used at the point-of-care integrate with the My Health Record. This will support seamless access to the My Health Record by clinicians to view relevant patient information held or linked within the system. • There should also be capability to integrate with other health records systems,

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		<p>such as nationally standardised pregnancy health records, to monitor the care of pregnant women, and screening registers, to capture historical information about clients screening episodes as well as outcomes and results so the client can manage and share this information with their health providers. Integration with other systems may provide additional incentives for people to register for their My Health Records.</p> <p>Accessibility and useability</p> <ul style="list-style-type: none"> • Health professionals have highlighted that the My Health Record system should be readily available as well as easily accessible for them to treat patients more effectively. Suggested improvement include: <ul style="list-style-type: none"> – addressing the current level of confusion in the healthcare and wider community in relation to required consents to access the full or only part of the data (i.e. restricted sections) contained in the My Health Record, and whether additional parties (e.g. school staff) could be granted access; – the My Health Record should allow for simple input; users should be able to add information quickly (no more than a few minutes) using a logical structure. Clear guidance is required about which aspects in the My Health Record should be patient controlled and which need clinical control; – GPs would find it helpful to be alerted when new documents relating to their patients have been uploaded to the My Health Record as well as a more useful viewing system of Medicare items and real time monitoring of Schedule 8 medicines.
9	<p>What should be the immediate priority initiative for the My Health Record to ensure it delivers real value for healthcare professionals ?</p>	<ul style="list-style-type: none"> • Better understanding is needed as to why there is limited usage of the My Health Record system by the primary healthcare sector and a clear plan established to address any issues identified (for example only 1.2 per cent of all Queenslanders have a shared health summary – 4.7 per cent of registered Queenslanders have a shared health summary uploaded). • The key priority in relation to the My Health Record is to develop and agree on a plan for: <ul style="list-style-type: none"> – a participation model – including planning for future uptake (dependent on the model chosen by the Federal Government), addressing infrastructure stability and performance – a strong awareness and education campaign about My Health Record and its evolving role in healthcare delivery – a roadmap for key clinical documents to be included in the My Health Record—acknowledging the need for increased flexibility and agility to cater for evolving healthcare system – more seamless integration with systems used by clinicians.
10	<p>How would you describe the working relationship between the research and science community and the technology sector in respect to healthcare</p>	<p>Expand opportunities for focus areas</p> <ul style="list-style-type: none"> • Queensland has a strong research skills base and the successes in life-sciences and medical biotechnology have placed the state firmly on the world stage. However, researchers are increasingly in demand globally and have a high level of mobility, so maintaining this research strength continues to be a priority. • Providing opportunities for researchers to work more closely with all levels of government and business will help improve their skill sets to undertake large scale system wide and commercialised research projects and become more outcome orientated. In addition, programs to train the next generation of health services researchers are required. • Significant advances and progress are being made in some areas of health, such as in the fields of biomedicine and genomics.

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	innovation?	<p>Implementation issues</p> <ul style="list-style-type: none"> • Development of the Strategy offers an opportunity to agree on and articulate a shared vision for the whole community that will help foster a positive and efficient working relationship between the researchers and users. • Many health professionals have great ideas about how to improve health services, more focus is required on the quantification of the ideas and translation of this into evidence-base as well as giving clinicians' incentives to pursue their ideas. Translation of innovation into practice is often iterative as implementation of system wide, single solutions involves too much risk.
11	What support do entrepreneurs need to encourage greater innovation in healthcare?	<ul style="list-style-type: none"> • New strategies around the governance structures and engagement of relationships with innovators are required to enable innovation to happen where the service is delivered. • The vast majority of 'breakthrough' digital innovations arise from new ventures as either research spin-outs or entrepreneurial start-ups. • All governments need to be more proactive in supporting such organisations in ways that mitigate failure risk and collaboration through 'test bed' environments. The My Health Record system should be viewed as a platform, and not as a product, with more opportunities provided to developers to seek out and model new approaches to innovation and application programming interfaces (APIs). <p>Red tape</p> <ul style="list-style-type: none"> • Assistance should be offered to innovators to help them with navigating the regulatory and ethics frameworks relevant to the health system. <p>Clear requirements and culture of sharing</p> <ul style="list-style-type: none"> • Innovators would benefit from a clearer understanding of the problems and challenges; input should be sought from service users (providers and consumers) to develop innovations that respond to service needs. • Formal and informal networks, across organisations, disciplines and jurisdictions, provide opportunities for entrepreneurs to leverage their own internal capabilities, and keep pace with market developments, new research and emerging opportunities. • Better access to available market research data, datasets (including de-identified data from My Health Record system) in a 'sandpit' environment would help innovators to develop analysis tools and applications. • Start-ups and seeding of innovation have the potential to improve the health system's ability to respond quickly to new healthcare practices and technology.