



Digital Health 2031

A digital vision for Queensland's
health system



Queensland
Government

Acknowledgements

We acknowledge the Aboriginal peoples and Torres Strait Islander peoples as the First Nations peoples and Traditional and Cultural Custodians of the lands we work upon to support the provision of safe and quality health services, and pay respect to Elders past, present and emerging.

Digital Health 2031

Published by the State of Queensland (Queensland Health), May 2022
IBNN or ISBN if needed

Security classification	IN-CONFIDENCE (Default)		
Document licence	Creative Commons Attribution 3.0 Australia licence*		
Copyright	©State of Queensland (Queensland Health) 2021		
Authority	State of Queensland (Queensland Health)		
Author	eHealth Queensland		
Documentation status	Approved	Release	1.0

*To view a copy of this licence,
visit creativecommons.org/licenses/by/3.0/au

For more information contact: Digital Strategy and Transformation
Branch, eHealth Queensland, Department of Health, GPO Box 48,
Brisbane QLD 4001, email eHealthQLD-DSTB-Corro@health.qld.gov.au.

Disclaimer:

The content presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations or warranties about the accuracy, completeness or reliability of any information contained in this publication. The State of Queensland disclaims all responsibility and all liability (including without limitation for liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason reliance was placed on such information.

Foreword

Digital continues to be a critical enabler for effective health services for the people of Queensland.

Since the development of our digital health strategic vision in 2016, Queensland Health has set a strong foundation for digitally enabled healthcare. This includes:

- investing in 15 digitally-enabled hospitals and two community facilities to deliver safer and quality care
- planning and development of modern and accessible telehealth and virtual care services, enabling the delivery of healthcare closer to home
- doubling the bandwidth available to 78% of rural and remote locations to help improve equity of access
- rolling out full coverage Wi-fi across 97% of sites providing mobility support for digital solutions
- augmentation of our clinical information systems and supporting technology infrastructure to deliver a faster and more efficient health system
- establishing digital capabilities to support Queensland's response to the COVID-19 pandemic.

This new digital strategy is an extension of the progress we have made and seeks to continue the transition to a world-class, digitally-enabled health system. The health context has changed significantly over the past few years, particularly with the ongoing impacts of COVID-19. Now is the optimal time to refresh and enhance our digital strategy so that it can continue to deliver sustained value to those that access our care.

This strategy identifies key strategic themes that set clear directions in what we seek to achieve in the future. This future puts our consumers and clinicians at the centre and provides the digital capabilities and innovations that they need to enhance outcomes. Digital is a key enabler in providing consumers greater access and control of their health information, while providing clinicians the insights and intelligence to make better, more effective care decisions. I am particularly excited about the opportunities for artificial intelligence and predictive analytics, modern digital capabilities that can spot trends and provide targeted, personalised advice for early intervention and prevention.

I would also like to acknowledge our partners involved in the health system. Digital provides the opportunity to support greater information exchange and collaboration to realise shared health objectives and better outcomes across the continuum of care.

Delivering this strategic vision will result in a more integrated and value-based health system enabled by digital. With digital capabilities in place we can continue to deliver better outcomes and provide the world-class health system that Queenslanders deserve.



Damian Green

Deputy Director-General, eHealth Queensland
and Chief Information Officer,
Queensland Health

Executive summary

Queensland has a commitment to delivering world-class health services to our population. To support this and build a sustainable health system, we need to invest in the right digital capabilities.

Digital health better connects consumers with their health information and enables them to be a more active partner in their care. It unlocks channels for health system access and engagement, supporting better experiences and outcomes. For clinicians, digital is about user friendly, integrated and intelligent health services, with meaningful insights to support better decisions and proactive care.

To ensure digital can support a sustainable health system, our focus is on providing digital capabilities across four strategic themes.



Empowered consumers

Empower all consumers to manage and optimise their healthcare throughout the course of their lives.



Connected and insight-enabled workforce

Foster a connected workforce with greater access to meaningful insights and tools to enable smarter, safer and higher quality care delivery across the continuum of care.



Digitally-enabled population health

Deliver equitable and accessible care closer to home for our First Nations people and other diverse communities across Queensland.



Health service modernisation for sustainability

Ensure we have a robust health system that that is value-based and can sustainably meet the needs of our population.

To deliver on these strategic themes, three horizons have been identified that seek to incrementally deliver digital capability over the next 10 years.

We will set the foundations for growth in the first horizon, while unlocking enhanced digital capability and new models of care in horizons two and three.

Our digital vision:

*Improving healthcare outcomes for all
Queenslanders through digital innovation.*



Introduction

Queenslanders have benefited from a mature health system that continues to deliver safe, quality care. However, the health system is continuously evolving and reform priorities, such as improving access and sustainability, call for health capabilities that have agility to meet the changing needs of our population and health ecosystem. Investment in digital health is a critical enabler to improving outcomes.

What is digital health?

Digital health is the use of technology and innovation to deliver and enable healthcare services. Examples of digital in health settings include:

- supporting consumer engagement and capturing consumer health information
- enabling predictive modelling to support prevention and point of care decision making
- providing intelligence to inform strategic and operational decisions on models of care
- reporting on outcomes and supporting system governance
- enabling health research and education.

Why is digital health so important?

The *Queensland Health Systems Outlook to 2026* identified transform, optimise, grow as crucial strategic priorities in healthcare reform. For each of these, digital was identified as a key enabler in realising targeted objectives for a better health system. Examples include the use of electronic medical records, health data and analytics to support effective decision making, and more efficient service delivery across health settings. In parallel, technology innovations continue to evolve and unlock

opportunities for better outcomes. To deliver on wider strategic priorities, while meeting evolving healthcare opportunities, it is important to ensure there is the right investment in the right technologies that deliver meaningful outcomes for Queenslanders.

What are we seeking to achieve?

This digital strategy provides directions to help continue Queensland's journey to be world-class provider of safe, quality and sustainable healthcare. The ultimate objective is to enhance outcomes for all Queenslanders that access our care. It seeks to:

- **define the future state for digitally enabled healthcare** in Queensland, which supports strategic priorities that recognise digital as a critical enabler in effective care delivery
- **provide a strategic framework and goals for digital initiatives** for those in the healthcare care system who need to deliver the future state
- **build on the prior *Digital Health Strategic Vision for Queensland 2026***, by identifying the digital capabilities that should be developed to support the continual evolution of our healthcare models
- **facilitate the ultimate realisation of improved healthcare outcomes** by outlining the roadmap and key success factors for co-designing, delivering and sustaining digitally-enabled services for Queenslanders.

Queensland Health Systems Outlook to 2026, reform directions:

Transform
health services
to improve health
outcomes

Optimise
the system,
making the best
use of resources

Grow
the system to
maintain
access



“Better use of data and technology is helping people live healthier lives, with greater control and better access to important health information. Digital health is about connecting you to better healthcare and Australia to a healthier future.”

Australian Digital Health Agency,
(www.digitalhealth.gov.au)

Where we are: the health system

Queensland Health provides leading healthcare, however, our system faces challenges of rapidly increasing, dynamic demand, and the evolving health needs of our population.

The current health system

The health system in Queensland is well established, delivering world class, quality care across multiple health domains. Our growing population consists of diverse communities across the state, all with different healthcare needs and expectations.

Population

The 2031 population is projected to be approximately **6,207,000 persons**

By 2031, 19.2% of Queensland's population will be **aged 65 and older**

By 2031 approximately **300,000 Queenslanders** will identify as Aboriginal and Torres Strait Islander

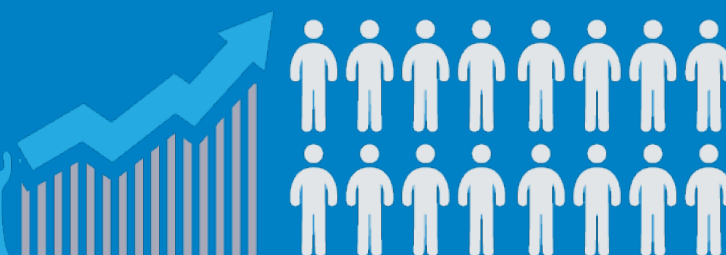
Our health services

Almost \$40 billion was spent on health in Queensland in 2018–19

The **hospitalisation rate in Queensland has increased** from 39,000 per 100,000 population in 2008–09 to 55,400 per 100,000 in 2018–19

There were **more than 25 million general practice presentations** in Queensland in 2018–19

The most **common outpatient services** were for midwifery (20%), orthopaedics (15%) and physiotherapy (13%)



Our health

- 25% of children and 66% of adults are overweight or obese in Queensland.
- 10% of adults are smoking daily in 2020.
- In 2018, the median age at death was 80.4 years; 77.7 years for males and 80.5 years for females.
- Burden of disease is increasing. In 2020, 77% of Queenslanders had one or more long-term health condition.
- Prevalence of chronic conditions is highest in the most disadvantaged of the population.

Future

Mental health is a growing concern and affects health and wellbeing across the lifespan.

Our ageing population will continue to challenge the health of individuals, their communities and health services.

The effects of COVID-19 on our future are yet to be fully understood.

Rapid change in our social and physical environments presenting many opportunities for health and wellbeing.

Where we are: digital landscape

Digital continues to be a fundamental enabler for the health system. It supports integrated models of care and health system operations that deliver value to our consumers and community.

Our digital ecosystem has been informed by state and national strategies which include:



Digital Health Strategic Vision for Queensland 2026 (2016)



Queensland Digital Health Consumer Charter (2020)



Queensland Digital Clinical Charter (2019)



National Digital Health Strategy and Framework for Action (2020)

Digital initiatives

Queenslanders have benefitted from investment in multiple digital initiatives over the past five years:

Integrated electronic records – deployment of a connected health record capability at 15 hospitals and two community facilities across Queensland.

Consumer portal – providing the yourQH portal for consumers to coordinate referrals and appointments.

Telehealth – delivery of one of the largest managed telehealth networks in Australia, including video conferencing at more than 200 facilities.

Clinician health portal (The Viewer) – delivery of a portal for internal clinicians and external care partners that collates relevant consumer information from multiple health systems.

Remote Patient Monitoring – providing remote solutions to enable care in the appropriate setting.

Clinical and Business Intelligence – bringing our large complex data sets together and generating insights.

My Health record (national electronic health record) – better integration with nationally-shared consumer health information.

Use of agile development and cloud platforms – Enabling rapid responses including the COVID 19 response and automating workflows.

Technology snapshot (May 2020 to May 2021)

Collaboration

- Nearly 600 million emails sent
- More than one million Teams calls/meetings

Telehealth

- Largest telehealth network in Australia with more than 870 videoconference systems across 260 sites across Queensland
- More than 200,000 telehealth enabled outpatient visits

Infrastructure and security

- Managing more than 100,000 devices
- More than three billion enterprise clinical systems messages
- More than 50,000 hours of staff time saved by rapid access
- More than 19,000 active cyber threats investigated and responded to.

Investment

More than \$725M expended on digital investments over the past five years.

Digital hospital coverage

15 of Queensland Health's digital hospitals cover more than 50% of acute inpatient beds, however only 3% of non-metro hospitals are fully digital using electronic medical records.

Integrated electronic medical records system (ieMR)

10,358,212 Patient encounters
543,177 allergies documented
24,908 Births recorded
23,723,544 medications administered.

Drivers for change

Why digital transformation is important.

By leveraging digital innovations we can deliver improvements in healthcare safety, quality and efficiency, as well as revolutionise the consumer experience by transforming how and where they access healthcare services. This will enable us to do more for the health system through:

- **prevention** – keeping people healthy and well into the future
- **value** – doing more and doing better for our consumers.

Now is the time to do something different.

Consumers and community expectations	As outlined in the <i>Queensland Digital Health Consumer Charter (2020)</i> , consumer expectations and digital literacy continue to rise. Technology is strengthening consumers' knowledge, allowing them to be increasingly empowered, understand more about their health and be engaged as an active partner in their care journey.
Growing demand and access needs	There is an increasing demand for services, as our population continues to grow and age. While Queenslanders are living longer, they are spending more years in poor health with reduced quality of life. We also live in a geographically spread out and diverse state which leads to challenges delivering equitable services, especially to our First Nations peoples, rural and remote and other diverse communities.
Healthcare workforce efficiency	Our workforce and partners require more connected and intelligent ways of working. The increasing and evolving demand of healthcare impacts our workforce, partners and the way we operate. As such we need to ensure those who deliver services in the healthcare system are appropriately equipped with the right digital capabilities.
New models of care	Models of care and health needs continue to evolve. Research and innovation continue to transform the way we deliver health services. This need to leverage digital effectively is further supported in the <i>Queensland Digital Clinical Charter (2019)</i> . Furthermore, evolving population needs, such as physical health, mental health, geriatric and palliative care for the aging population, require a sustained and targeted shift in the care we deliver.
System sustainability	There are broader strategic priorities that call for a more cost optimised and sustainable health system. Meeting the increased demand by funding the current model is not sustainable. Moreover, disruptors such as COVID as well as state and national directions for value based healthcare, are stressing the need for a health system that can adapt to meet the changing healthcare context.
Digital disruption	Digital disruptors provide new opportunities for more intelligent and efficient care delivery. The past decade has seen rapid development and adoption of new technologies that change both how we live and how we deliver healthcare. In order to continue to deliver leading, world-class care, we need to continuously innovate and evolve.

*Source: Queensland Health, 2020. System Outlook to 2026



Guiding principles

Our guiding principles set the foundation for the design of our future state and reflect the desire to leverage technology as a key asset in effective, person-centred and sustainable healthcare.



Person-centred, mobile-enabled and inclusive design - Our consumers and healthcare workforce are at the centre of everything we do. Digital must use a person-centric, mobile-enabled, omnichannel, disability friendly technology and equitable approach to maximise value for participants in our system. This includes ongoing collaborative engagement and inclusive co-design to validate what exactly our health consumers and workforce need and what is important to them.



Interoperability and Information Sharing - Digital must act as an integrator of internal and external healthcare systems to facilitate effective information exchange between providers across the continuum of care.



Data-led decision making - Enable a 'data culture' by leveraging Queensland Health's shared data assets to provide real-time, quality information to deliver meaningful insight and decision guidance. Realise the full value of our information by enabling a learning and knowledge based healthcare organisation that supports ongoing education and training, clinical and business analytics, artificial intelligence/machine learning, and research to ensure that Queensland Health is at the forefront of digital health innovation and to drive the health system towards precision medicine and future sustainability.



Safety and quality - Digital should provide the tools and capabilities to reduce risk and enhance value in order to realise safe and quality care outcomes. Our goal is to deliver better quality healthcare for Queenslanders, and digital investment needs to clearly demonstrate how they are clinically safe and promote better health outcomes.



Agile, platform approach for reliable, scalable delivery - Digital needs to evolve to meet changing needs through leveraging contemporary, scalable technology foundations and architectures. A focus should be on simplifying how we operate and using proven and repeatable technologies, processes and standards.



Sustainable and well governed - Digital needs to offer ongoing business driven value for money while being compliant with broader health priorities and legislation through strong governance. Digital investment should focus on leveraging existing digital capabilities, optimising costs and value, while being 'future proofed' for evolving needs.



Security and privacy - Digital must provide secure and protected access to systems and information to only those that need it, when they need it. A focus should be on having the right controls to maintain consumer and workforce trust in how we use data.

Strategic vision overview

Our digital vision:

Improving healthcare outcomes for all Queenslanders through digital innovation

Themes	Strategic goals
 1. Empowered consumers	Empower all consumers to manage and optimise their healthcare throughout the course of their lives by: • providing greater transparency and control over their health information • delivering care where and when they require it • empowering them to be an active partner in their care outcomes • supporting a seamless care experience across their health journey.
 2. Digitally-enabled population health	Deliver equitable and accessible care closer to home for our First Nations people and other diverse communities across Queensland by: • improving equity of access by delivering health services to consumers regardless of where they live or who they are, ensuring no-one is left behind • adopting user-friendly and culturally appropriate digital health services • promoting wellbeing through the delivery of personalised care for our communities and individuals • ensuring our clinicians are equipped appropriately to deliver health services in rural and remote settings.
 3. Connected and insight-enabled workforce	Foster a connected workforce with greater access to meaningful insights and tools to enable smarter, safer and higher quality care delivery across the continuum of care by: • improving communication, collaboration and information exchange between clinicians, workforce and partners • equipping clinicians to make better decisions across the continuum of care - from prevention to wellness • ensuring our health system is intelligent and leverages insights to support better outcomes • supporting the workforce to optimise use of digital capabilities.
 4. Health service modernisation for sustainability	Ensure we have a robust health system that is value-based and can sustainably meet the needs of our population by: • ensuring consumers are directed to the most appropriate care in the right care settings • optimising our workforce and resources through smarter ways of working • innovating our models of care through effective collaboration with our research and industry partners • supporting a learning and knowledge- based health system that leverages our information and digital capabilities.

Digital foundations

- Simplified access channels for consumers
- Security and resilience to protect from cyber threats
- Human centred design and agile service delivery
- Digital readiness and digital literacy
- Information management standards and governance
- Cloud enabled fit-for-purpose infrastructure
- Platform-oriented for delivering transformational healthcare services
- Integrated cloud repositories facilitating quality health data from across the health system
- Information exchange automated through secure, established integrations and patterns
- Proven artificial intelligence models are embedded to provide decision support and insights at the point of care
- Continuously enhance the digital ecosystem to leverage new technologies, while maintaining existing digital assets

Outcomes



Improved consumer and clinician experience



Improved access and performance



Improved health outcomes

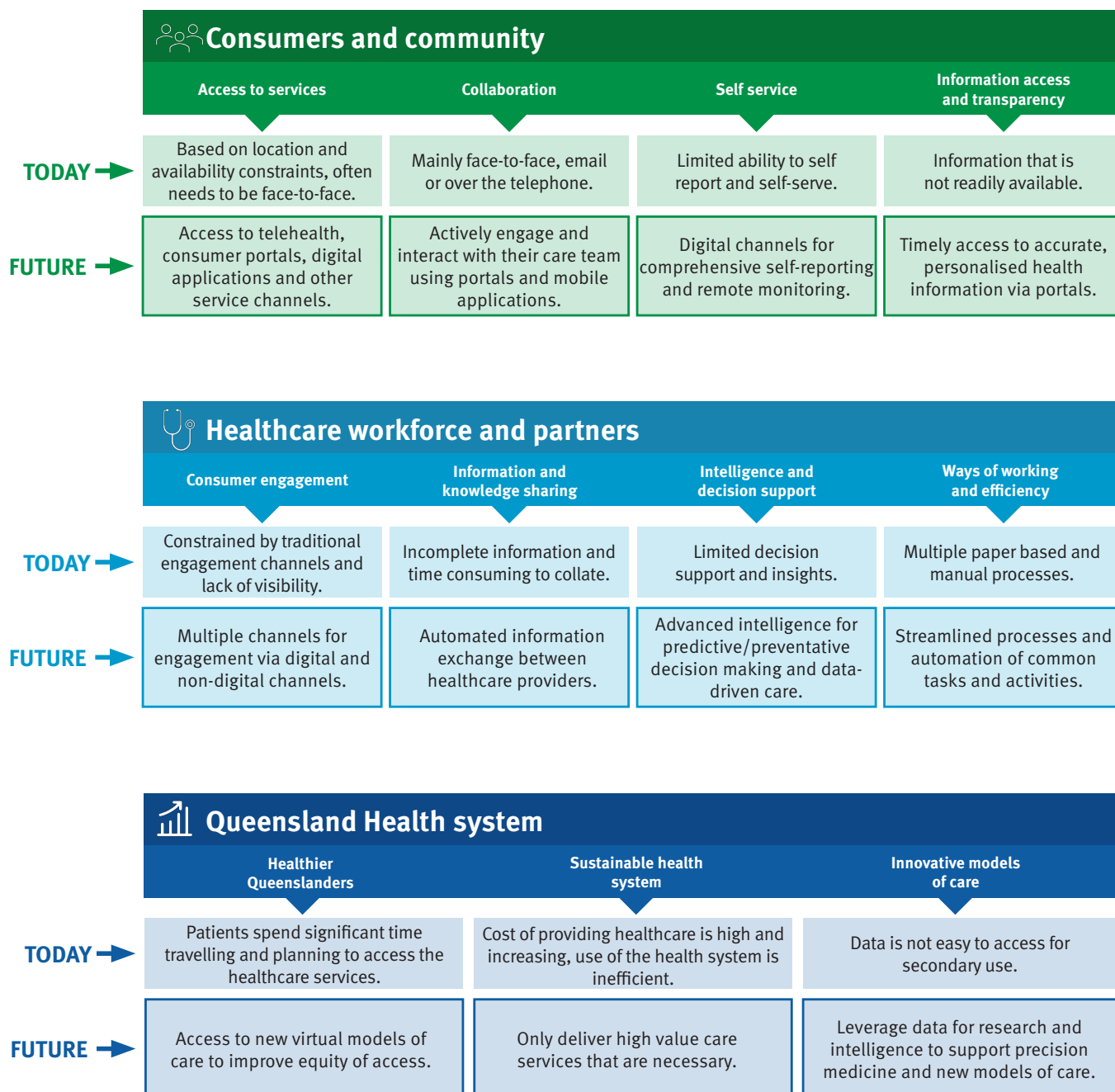


Deliver safe and quality healthcare



Ensure system sustainability

Our future state: Expected outcomes



Strategic themes and capabilities





Empowered consumers

Empower all consumers to manage and optimise their healthcare throughout the course of their lives. Put consumers at the centre of their care for an improved health experience, and give them options on how they access and engage the health system.

Goals



Provide consumers with greater transparency and control over their health information, with digital tools that are simple, easy to use, inclusive by design, private and secure. The aim is for consumers to be the ultimate owners of their health information and better equip them to manage it.



Deliver care where and when the consumer requires it, such as virtually or in their community. The focus is on consumer choice and providing both physical and virtual channels accessible where and when needed.



Empower consumers to be actively involved in their care. Equip consumers with self-care tools to be a true partner in care through self-service, health literacy and active engagement with their clinicians.



Support a seamless care experience across a consumer's health journey. Consumers should be able to receive consistent and integrated experiences, for example without having to repeat their care history, across the continuum of care and build relationships with care partners along their health journey.

Capabilities	What does this mean for our consumers?
Consumer information access and self-service	• Provides a convenient way for consumers to securely access to their health information, make updates where appropriate and provide information (e.g. patient reported experience measures and patient reported outcome measures). • Provides credible, up-to-date, accessible and 'plain language' information to support health and wellness. • Provides consumers a single point to manage bookings, view alternative care options, self-report symptoms, consent to participate in research studies, and access tools for triage, navigation and advice.
Virtual visits	• Allows consumers to virtually engage with diverse health services from anywhere including where traditional care settings do not exist (e.g. hospitals). • Enables consumers and clinicians to collaborate virtually on prevention, diagnosis and treatment. • Provides consumers choice in accessing services via physical or virtual channels.
Connected, integrated care	• Provides consumers with a seamless experience where their care providers and care team, across different health settings, know their health history. • Provides care providers with access to a holistic view of a consumer's health history and view of their interactions with other care partners in the health system.
Remote health monitoring	• Allows consumers to use smart devices to automatically capture key bio-indicators outside of hospital settings and communicate to their care providers. • Enables clinicians to have a near-real time view of consumers and allows them to detect trends or concerns and intervene early.
Consumer-managed mobile healthcare	• Allows consumers to use smart phones, user-friendly apps and wearables to manage health and wellbeing, receive reminders and share relevant information with care providers. • Provides a simple way to enter data, view schedules, and manage key health information wherever they are.



Digitally-enabled population health

Deliver equitable and accessible care closer to home for our First Nations people and other diverse communities across Queensland - It seeks to connect First Nation peoples, rural and remote and other diverse communities to care that is equitable, safe and of high quality.

Goals



Improve equity of access, by delivering culturally appropriate health services to all Queenslanders regardless where they live or who they are - ensuring no-one is left behind.



Adopt user-friendly and culturally appropriate digital health services, enabled by fit for purpose digital health solutions for First Nation peoples, rural and remote communities and other diverse communities. This includes services that enable personalised care that is appropriate for the community.



Promote wellbeing via targeted advice for our communities, with better data collection and analytics on population data. This is about harnessing our information for planning, wellness campaigns and support services to realise healthier communities across the state.



Ensure our clinicians are equipped appropriately to deliver health services in rural and remote settings. This aims to support clinicians in rural and remote areas connect to self-help resources and access clinical advice from experienced care professionals or specialists who are in other locations.

Capabilities	What does this mean for our consumers requiring improved access?
Co-design and tailor services for diverse communities	• Provides healthcare solutions co-designed by consumers, communities and key stakeholders, and tailored for the diverse communities in Queensland, whether they be language, cultural and disability appropriateness (e.g. readability, language translation, accessibility services). • Provides consumers access to a user friendly and inclusive care service using virtual consultations with local health workers (for relationship/culture) and digital prescriptions. • Provides the rural and remote clinical workforce with the right tools and knowledge assistance that support them to deliver appropriate care in their locations.
Connected healthcare partners in rural and remote settings	• Connects consumers to care providers, using the virtual healthcare network to receive advice and support, and access virtually enabled services including central intake hub, home model of care, remote monitoring and virtual acute models. • Coordinates remote services for faster access and delivery of equipment, specimens and medications. • Enables better coordinated and seamless care to communities regardless of location.
Targeted population insights	• Informs care providers of insights from population data to customise health promotion and prevention initiatives for their target populations. • Provides relevant insights for wellness initiatives of our diverse communities for clinicians when they make their care plans. • Provides state-wide digital capability to prepare for future pandemic responses.
Reliable connectivity and access	• Provides a coordinated approach across the levels of government and other organisations to provide reliable and high-speed connectivity and access points in rural and remote communities, and other care pathways. • Coordinates local support and care organisations in rural and remote areas to help deliver health services in those locations.



Connected and insight-enabled workforce

Foster a connected workforce with greater access to meaningful insights and tools to enable smarter, safer and higher quality care delivery across the continuum of care. Empower the workforce to innovate and optimise our way of working, to improve service performance.

Goals



Improve communication, collaboration and information exchange between clinicians, workforce and partners. Enabling a more connected, collaborative workforce that can work anywhere, anyhow, with information and knowledge sharing to make better decisions across care settings.



Equip clinicians to make better decisions across the continuum of care - from prevention to wellness. Providing clinicians with analytics and intelligence at the point of care from available health data, to support effective decision making - with a focus on early detection and early intervention and preventing avoidable hospital readmissions - and to deliver personalised advice in all care settings.



Ensure our health service is intelligent and leverages insights to support better outcomes. Embedding a data and insight driven culture in our health system leveraging meaningful insights from peer comparative data, adopting better practices; and supporting education and research.



Support the workforce to optimise use of digital capabilities. Equipping our workforce with the knowledge and training to maximise value from health information, technologies and innovation to create smarter, more-efficient processes and automation to enable more productive, consumer orientated care.

Capabilities	What does this mean for our healthcare workforce?
Integrated, digital view of consumer health information	• Enables an integrated digital view of consumer health information, as a source of truth across the continuum of care. • Supports real-time, up to date clinical information which spans the different domains of clinical data acquisition enabling more personalised care and advice. • Supports best practice consumer engagement and information management processes to reduce information risks and variation in care.
Shared health information across clinical partners	• Supports better care decisions through connected, equitable real time health information sharing across our clinical partners. • Enables clinicians to deliver safer care via systems integrated across the continuum of care (including QAS, hospitals, primary care, aged care).
Insight-driven decision making and intelligent care	• Provides advanced knowledge to make better care decisions across care settings and to improve access to clinical specialists and knowledge repositories. • Measures clinical service delivery and provides a data feedback system for clinicians to act on variation to drive high reliability healthcare. • Equips clinicians with intelligent assistants to shift focus to early detection and prevention, reducing the burden on the health system. • Facilitates State-wide use of research and information, and leverages modern innovations in AI to drive insights from the point of care to population levels.
Mobile-optimised workforce and smarter service delivery	• Enables the workforce to securely work anywhere, any time through intuitive mobile enabled ways of working, communications and sharing information. • Enables the workforce to undertake their jobs more intuitively and to use real-time information to realise service delivery efficiencies.
Digital leadership, learning and knowledge based health system	• Provides an intuitive experience for delivering education that is inclusive, contextually specific and available in different modes of delivery. • Enables the workforce to know where they are at with their learning and share their learnings and knowledge with their peers.



Health service modernisation for sustainability

Ensure we have a robust health system that is value-based and can sustainably meet the evolving needs of our population. Realise innovative best practice models of service that leverages digital to create measurable system capacity by aligning care with people's needs and goals.

Goals



Ensure consumers are directed to the most appropriate care in the right care settings. This delivers a more coordinated care system by directing consumers to relevant care services to ensure they receive the right care, at the right place, at the right time.



Optimise our workforce and resources through smarter ways of working. This seeks to leverage contemporary digital innovations to evolve and enhance how we deliver care services in both clinical and non-clinical settings.



Innovate our models of care through effective collaboration with our research, education and industry partners. Seeks to work with our partners to advance health services through shared, evidenced-based practices.

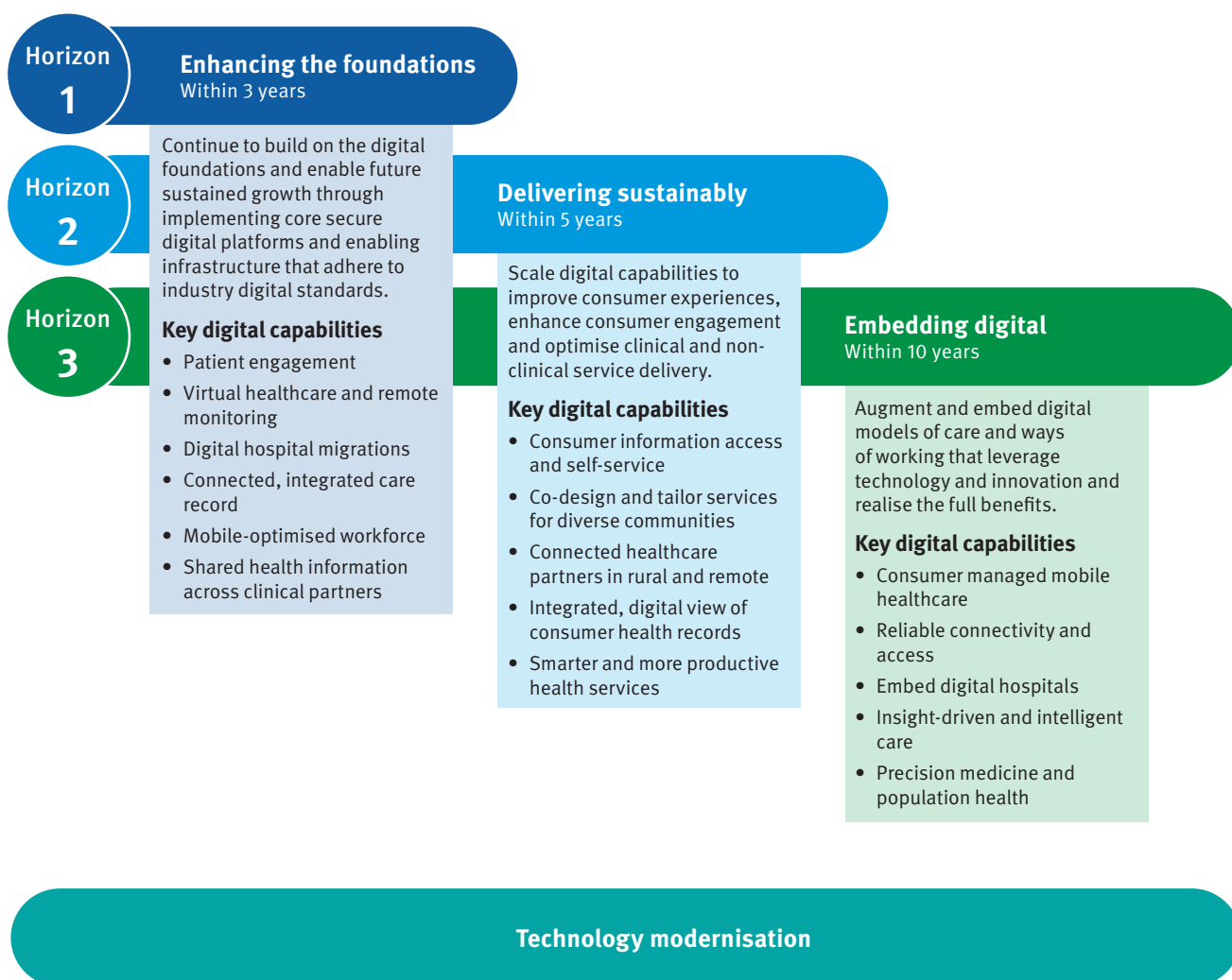


Support a learning and knowledge based health system. Supports an evolution of our health system to one that continuously improves through intelligence, analysis, learning and research; to drive the health system towards future sustainability.

Capabilities	What does this mean to the health system?
Virtual healthcare hubs	• Connects consumers to care providers, using the virtual healthcare network to provide advice and support to, and facilitate the provision of virtually enabled services including central intake hub, home model of care, remote monitoring and virtual acute models.
Digital hospitals	• Provides hospital service facility with highly connected, interactive digital information systems which support precise, informed treatment of individual patients/clients while enabling efficient use of infrastructure. • Optimises our workforce and operational processes. For example through contemporary workforce management, scheduling and business intelligence tools.
Precision medicine and population health	• Enables clinicians to improve diagnosis and interventions through precision medicine using capabilities such as informatics, genomics, phenomics and geospatial analysis. • Provides consumers with personalised treatments and therapies that operate across the spectrum of prevention, intervention and monitoring.
Clinical research analytics	• Ensures clinically-driven improvement of the system through the use of consumer reported measures, integrated health data and research to analyse and identify improvements that matter to consumers and community. • Enables findings to inform new models of care and better healthcare practices. • Leverages clinical research analytics that improve the flow of data, insights and research outputs, while maintaining strong clinical governance. • Supports digital applications that streamline research approvals and participation.

Roadmap

The sequenced, overlapping implementation of the following digital capabilities will transform the care experience for consumers, healthcare delivery for clinicians and engagement with wider partners. This will be done to support the delivery of healthcare priorities and system transformation.



Key success factors

Success can only be achieved through a robust governance framework, coupled with the right partnerships, delivery models, technology capabilities and investment.

Governance and risk management

We need to ensure alignment to strategic objectives and wider legislation, reduce duplication, improve coordination, control, accountability and confidence over the delivery of a complex set of digital initiatives to realise the Digital Health 2031 vision. An appropriate governance framework will be required to achieve this.

Information management and technology

We will continue adoption of policies and standards to enable better sharing and utilisation of our information assets, while maintaining trust in our information security. We will implement core and common digital and ICT solutions to maximise the impact of our technology portfolio.

Change management and new ways of working

We need to prepare for a culture that is more collaborative, data-driven and open to learning, supported by contemporary leader-led change management which has appropriate resourcing, and strong commitment from our stakeholders. To be responsive to evolving needs, we will need ongoing digital workforce planning to define where and what capabilities are required.

Partnerships

We need to continue to collaborate with non-government organisations and research and industry partners to achieve success in digitally enabled healthcare. This provides opportunities for effective sharing of information and resources and uplifting our capabilities.

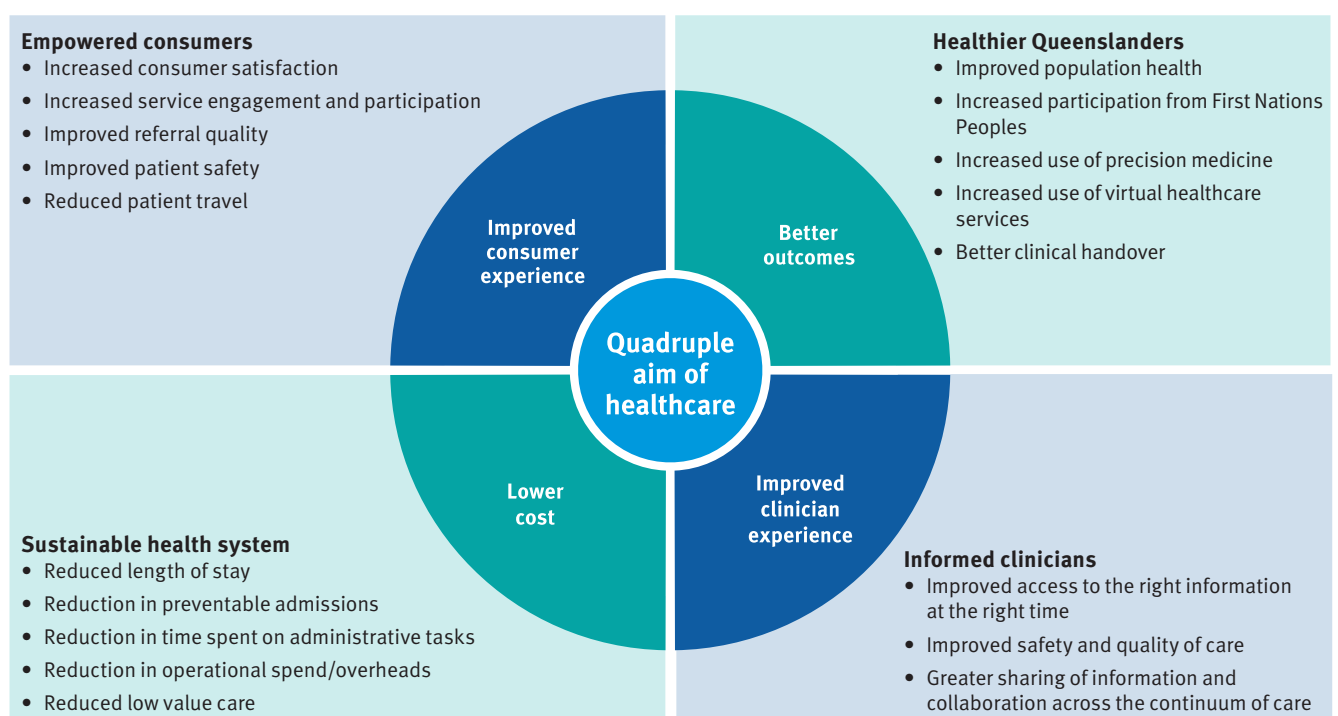
Alignment to models of care

We will use person-centred design to define and agree on the new models of care and service delivery first and use digital as an enabler. We will have a continual process to review this with evolving health needs.

Sustainable funding

We need to appraise the total cost of digital capabilities and assets and explore as-a-service/consumption-based models as part of funding proposals for digital initiatives. This coupled with agile ways of delivery will allow for us to start small, adapt and scale fast, while providing transparency of costs and value delivered.

Success measures help to exhibit the value of digital in service delivery and demonstrates improved outcomes for our consumers, community, clinicians and health system.



References

Australian Digital Health Agency, 2018. National Digital Health Strategy and Framework for Action

Health Consumers Queensland, 2020. Digital Health Consumer Charter

Queensland Clinical Senate, 2019. Queensland Digital Clinical Charter

Queensland Health, 2017. The Digital Health Strategic Vision for Queensland 2026

Queensland Health, 2020. System Outlook to 2026

Queensland Health, 2020. The Health of Queenslanders 2020. Report of the Chief Health Officer Queensland. Queensland Government

Queensland Health Information Management Strategy and Roadmap

Queensland Health Digital Strategy for Rural and Remote Healthcare

Queensland Health Virtual Healthcare Strategy

Queensland Health 2021. Technology Service Statistics (1 year to May 2021)

Glossary

Artificial intelligence	The ability of a digital computer or computer-controlled robot to perform tasks typically associated with intelligent beings.
Analytics	Capability to explore data and information to generate insights, and inform and optimise decisions.
Automation	The process of performing an activity routinely based typically without human intervention.
Cloud	Refers to highly scalable and agile software, infrastructure, and platform services available online without the need for local physical hardware. The clinical and business intelligence service is built on Microsoft cloud infrastructure.
Consumers	Patients, patients' carers, patients' families and the broader community.
Decision support	Augments human decisions with computer generated insights.
Digital hospital	Enables integrated care in hospital settings using computers and electronic records to reduce manual based processes.
Interoperability	The ability of different technology systems to work together to communicate, share data, and apply data that has been shared.
Mobility	The ability to work remotely or anywhere, typically away from fixed locations.
My Health Record	A shared, online summary of your key health information available across Australia.
Omics	Analysis of large amounts of data representing an entire set of some kind, especially the entire set of molecules.
Population health	Focusing on the health outcomes of a group of individuals.
Remote patient monitoring	Exchange of medical data between a consumer at home and a healthcare provider, typically based in hospital or other clinical setting.
Telehealth/telemedicine	Use of telecommunication techniques for providing care services and education over a distance.
Virtual care	The provision of care services remotely that replicates a physical care setting (similar to telehealth).
Wearable	Electronic devices that can be worn on the body and acquire physical information (such as activity trackers).



Digital Health 2031

A digital vision for Queensland's health system