



21st Century Healthcare

eHealth Investment Strategy

July 2019 Progress



Queensland
Government

1 Introduction

Digital technology advancements and innovation are an integral enabler for transformation in healthcare delivery. Investing in digital technology and innovation continues to be a cornerstone of Queensland Health's ongoing commitment to improving the healthcare of all Queenslanders.

The Queensland Health eHealth Investment Strategy July 2019 Update describes the achievements made since the strategy was launched in 2015 and provides an overview of the rollout of key initiatives over the coming years. The update is the product of the digital programs review announced by the Minister in response to the QAO Digitising Public Hospitals Report No. 10: 2018-19.

Queensland Health has progressed in delivering across all key investment categories of the strategy. We have embarked on a digital journey that is transforming patient care across Queensland - through the rollout of the digital hospital program which enables delivery of improvements for patients, healthcare professionals and the health system. We are also modernising laboratory and finance

management systems for improved services and sustainability; and establishing foundations and contemporary platforms to support innovation for our digital future.

This update aligns with Advancing Health 2026 and Digital Health Strategic Vision for Queensland 2026 to enable the continued delivery on our vision for the future. It also supports the Queensland Government's Advancing Queensland's Priorities to give our children a great start and to keep Queenslanders healthy through responsive healthcare services enhanced by digital technologies and innovation.



We recognise that digital health transformation is a long-term journey requiring continued collective effort, collaboration and partnership across Queensland Health. We remain committed to delivering on the strategic vision and will continue to prioritise and guide our efforts to grow digital health capabilities across the system - making a difference to Queenslanders through the delivery of safe and effective healthcare services now and into the future.



2 A plan for healthier Queenslanders

The *Digital Health Strategic Vision for Queensland 2026* provides eight strategic goals as targets for the health system stakeholders, which will support digital transformation outcomes in alignment with the vision and four directions of *My health, Queensland's future: Advancing health 2026*.

Strategic Goals

Promoting wellbeing		<ol style="list-style-type: none"> 1. Greater patient engagement through patient involvement and personal health management enabled by digital devices and applications. 2. Healthier and safer communities by harnessing information about people and their communities to inform planning, improved emergency response, wellness campaigns, population health policy and population health considerations such as water, nutrition and food safety. 3. More productive and targeted care using real-time patient monitoring, analytics and genomics.
Delivering healthcare		<ol style="list-style-type: none"> 4. More systematic, high quality and safer care through optimised workflows, information decision support and knowledge management. 5. Improved resource management through streamlined workflows and the ability to match demand with capacity.
Connecting healthcare		<ol style="list-style-type: none"> 6. Better coordinated care through increased collaboration, digitally enabled care pathways across care settings and the secure sharing of information. 7. Improved access to expert knowledge more easily, anywhere and in real-time, enabled by technology.
Pursuing innovation		<ol style="list-style-type: none"> 8. Continuous system improvement and learning with a combination of analytics, science, digital innovation, organisational development and a learning culture.

By 2026 Queenslanders will be among the healthiest people in the world.

3 Key achievements

Clinical Systems

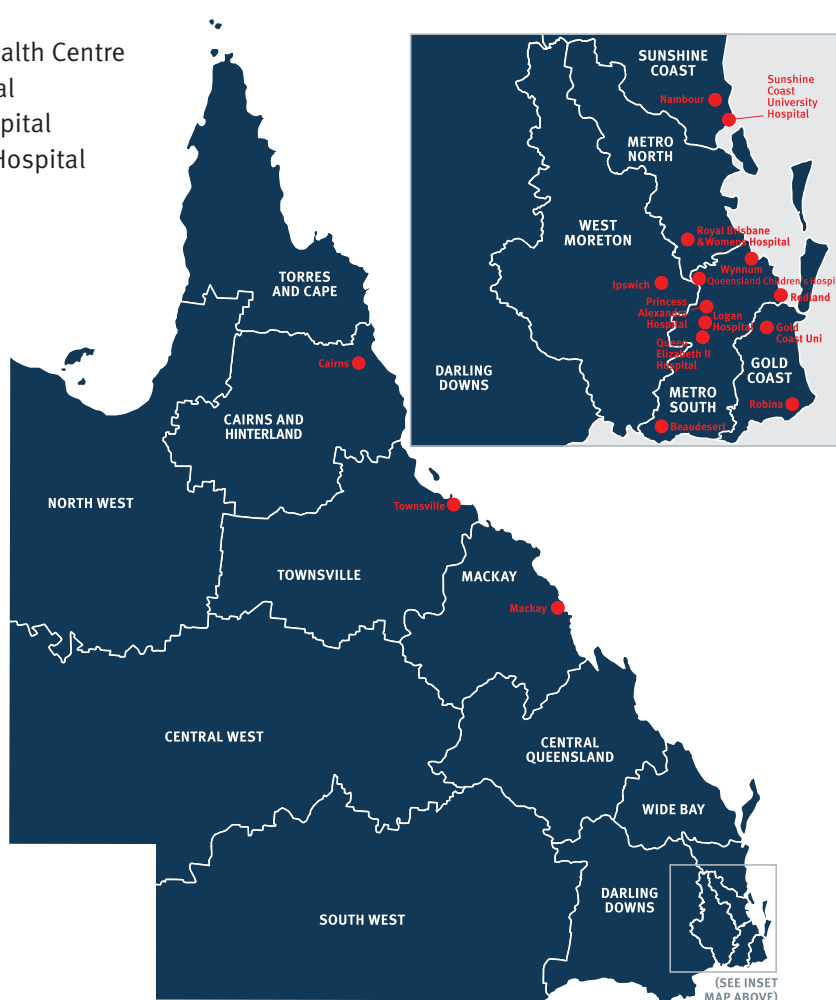
Digital Hospital Program – Integrated Electronic Medical Record (ieMR)

The progressive rollout of the integrated electronic Medical Record (ieMR) solution is underway. Sixteen hospitals and services have gone-live with fourteen sites with advanced functionality, Royal Brisbane and Women's Hospital with basic functionality and Cairns Hospital with intermediate functionality.

1. Princess Alexandra Hospital
2. Cairns Hospital
3. Mackay Hospital
4. Townsville Hospital
5. Logan Hospital
6. Redlands Hospital
7. Queen Elizabeth II Hospital
8. Beaudesert Hospital
9. Wynnum-Manly Community Health Centre
10. Queensland Children's Hospital
11. Sunshine Coast University Hospital
12. Royal Brisbane and Women's Hospital
13. Nambour Hospital
14. Ipswich Hospital
15. Gold Coast University Hospital
16. Robina Hospital

The digital hospital program is now entering an optimisation phase to enhance functionality and consolidate the benefits that have been achieved. The next roll-out phase of the program (Phase 5 rollout) is planned to commence in the second half of 2020 with foundation work in Metro-North Hospital and Health Service and Darling Downs Hospital and Health Service, followed by go-live of advanced functionality commencing in 2021. The Phase 5 rollout will be considered as part of the 2020-21 budget.

The Phase 6 rollout focusing on major hospitals in Central Queensland, Wide Bay, South West, Central West, North West, Torres and Cape, and advanced functionality for Cairns Hospital is planned to commence in 2021 with rollouts commencing in 2022.



The integrated electronic medical record

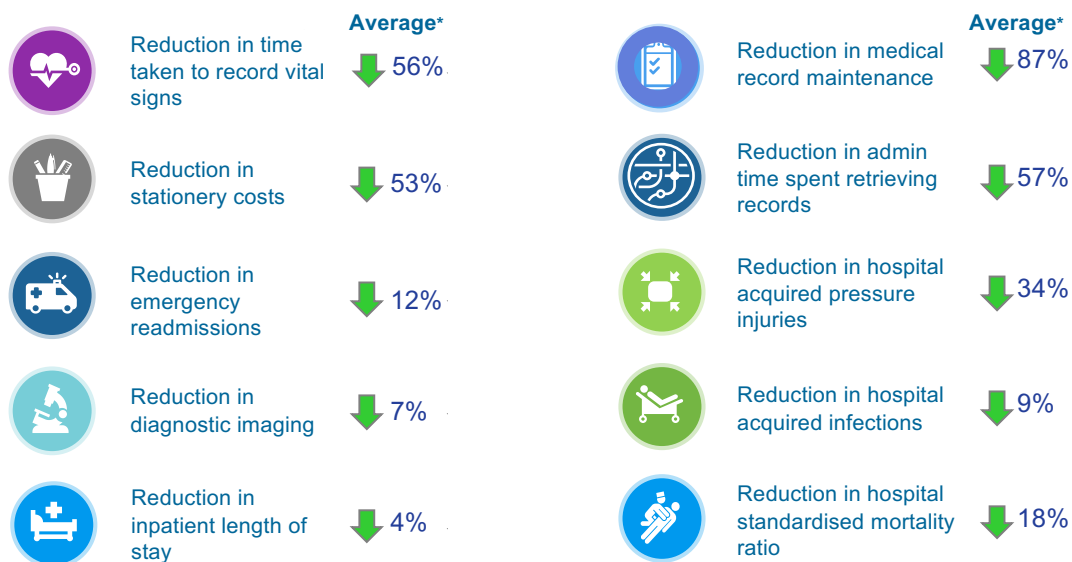
In a digital hospital, processes are streamlined to allow patients' medical records to be created, stored, accessed and shared electronically; and an integrated electronic medical record is one of many applications that contribute to a digital hospital.

Integrated electronic medical records bring together patient information such as consent forms and advanced care directives, with clinical records, data, and results such as radiology, pathology and pharmacy – enabling clinicians to see a patient's medical record anywhere and at any time.

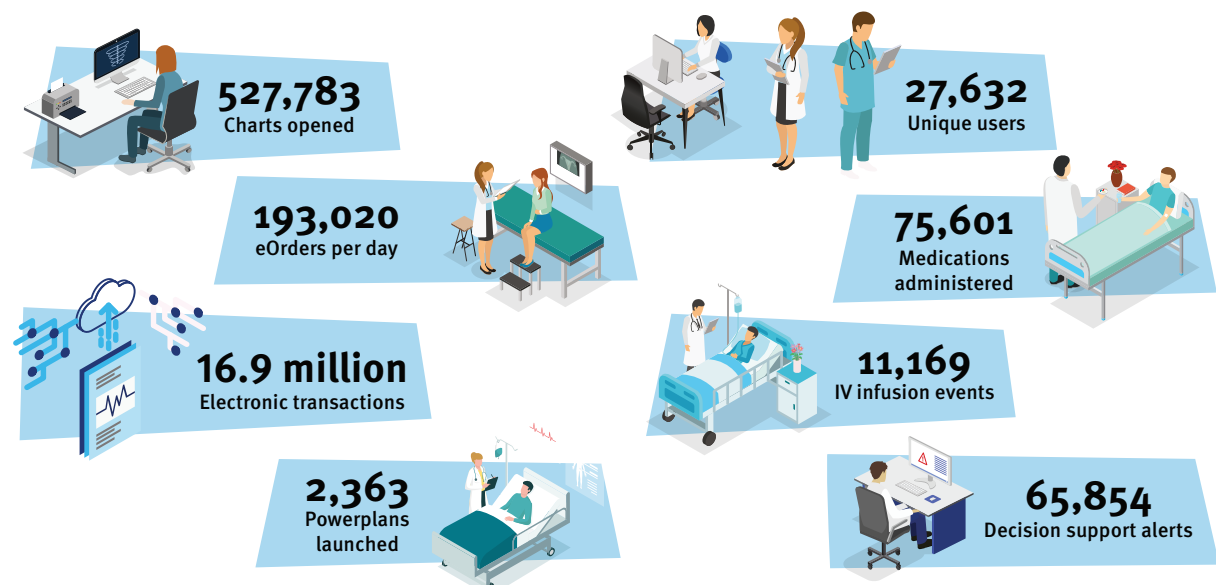
Health care delivery benefits from digitisation as data provides real-time information to help manage hospital and health services, and enhances how patients are monitored, as well as enhancing how medications are prescribed and managed.

Digital hospitals are about better patient outcomes and delivering improvements for healthcare professionals and the health system. An integrated electronic medical record is integral to achieving those outcomes.

Benefits:



A day in the life of the ieMR (July 2019):



4 Optimising our system

Optimisation is the process of clinically enhancing and improving our system. Our optimisation objective is firmly driven by clinicians, ensuring that initiatives are prioritised and aligned to the needs of end users. These improvements are made during the delivery at all digital sites. New functionality upgrades can also be identified by users. These are then endorsed by specialist advisory groups and then approved by a Clinical Advisory Group.

Completed Optimisation Initiatives

QXR Interface

Completed

Provision of an electronic interface between the ieMR and Queensland X-Ray (QXR) for electronic Radiology Orders and Results

Karisma Interface

Completed

Design of bi-directional Orders and Results Interface between ieMR and Kestral's Karisma (RIS – Radiology Information System) used at Logan, Beaudesert and Gold Coast University Hospitals.

Paediatrics

Completed

Completion of the outstanding paediatric build for the Medication and Anaesthetics and Research Support release

Anaesthetics

Completed

Optimisation of the SAA Anaesthesia module of the ieMR and associated medical device connectivity.

SurgiNet

Completed

Stabilising and Optimising the SurgiNet module to better meet the needs of clinicians

Medications

Completed

Completion of outstanding Maternity build. Stabilising and optimising the Medications, Anaesthetics and Research Support Mars and providing core medications support functions

AGFA Interface

Completed

Design and implementation of an Orders and Results Interface between ieMR and AGFA (RIS – Radiology Information System) that can be used for the SCUH ieMR Rollout Go Live.

Queue Manager - SCUH

Completed

Design and implementation of an interface between ieMR (Cerner Millennium) and Queue Manager (Telstra Health) that can be used for SCUH ieMR ESM Go-Live

Transfer of Care (Phase 1)

Completed

Delivery of the digital clinical handover and discharge referral solutions

Perinatal Data Collection

Continuing

Delivery of a working PDC extract from ieMR Maternity. Enable statutory reporting compliance for Statistical Services Branch.

Future Optimisation Initiatives



CareDelivery

Upcoming

New intuitive and efficient functionality for

- Lines and Devices
- Pressure Injury Prevention / Wound management

Acute Resuscitation Plan



Perinatal Data Collection

Upcoming

Annual update



Early Warning Tools



Code Upgrade



Oncology

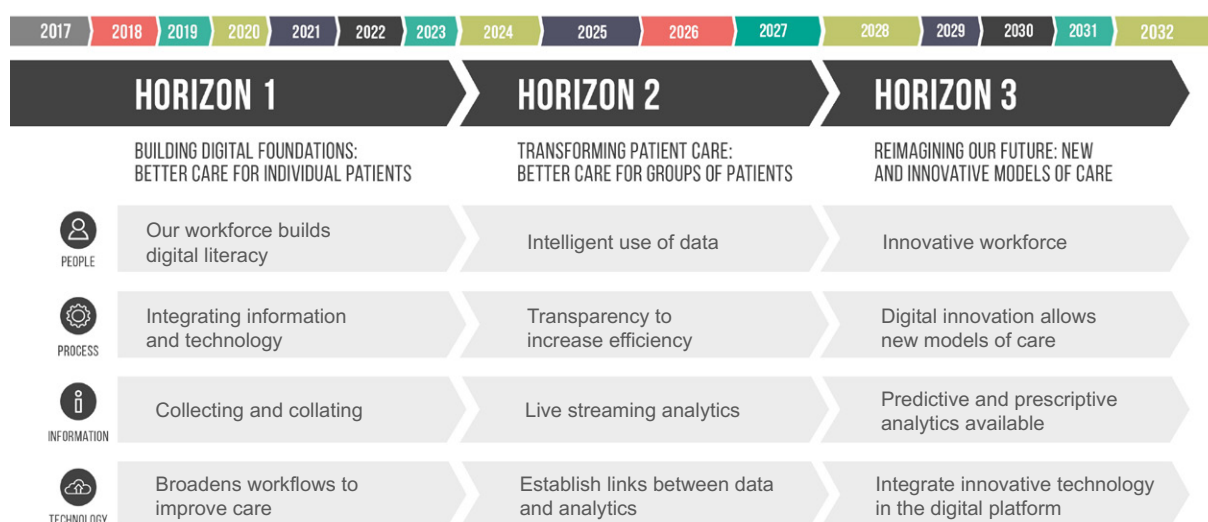
Reimagining our future

Queensland is at the forefront of delivering a digital ecosystem capable of catapulting us towards precision medicine faster than anywhere else in the world.

All of these advances, which have the undoubted potential to transform the delivery of healthcare and patient outcomes, critically depend on the

availability of high quality data and a robust analysis.

The investments we are making today in digital platforms including the integrated electronic medical record will enable us to deliver the medicine of tomorrow and thus set up our healthcare system for generations to come.



Other major clinical systems

The pathology information system is the core operating system that supports the service provision of pathology, forensic and public health laboratory testing services. The delivery of a modern, innovative and integrated end-to-end laboratory information system solution is underway to enable the transformation of the delivery of sustainable services for future generations. The rollout of the pathology information system is planned to commenced in a phased approach from the end of 2020.

The patient administration system procurement pathway is currently being developed and planned to be considered as part of the 2020 budget. In preparation for the updated rollout schedule,

negotiations are occurring to extend support for the current patient administration system and foundation work occurring in relation to the provider directory, integration services and service billing.

Work is underway to establish a patient online portal which aims to improve a patient's outpatient journey through greater visibility and enhanced communication capability across specialist services. The solution also seeks to provide greater flexibility in the provision of outpatient services, enabling patients to better manage their care. The rollout of this platform is planned to occur in the second half of 2020.

Business Systems

Implementation of a new, state-wide business, finance and logistics solution is underway across all 16 Hospital and Health Services (HHSs) and the Department. This will modernise and transform the approach to finance, business and logistics across the system. The new solution will provide real-time reporting and improved functionality, replacing the existing finance system that is over 20 years old.

The implementation of the new finance system is well advanced and the rollout is scheduled to commence in August 2019.

The successful rollout of the MyHR workforce management portal during 2018-19 will be enhanced through the planned phased rollout of electronic

rostering across all Queensland Health sites. Electronic rostering is already deployed in pilot sites and the state-wide phased rollout is planned to commence in late 2020.

The rollout of Microsoft Office 365 and Windows 10 across Queensland Health has been successfully completed to provide a contemporary, secure, mobile and scalable platform that will enable increased collaboration and productivity. This is a major undertaking which includes rollout to 80,000 devices and the migration of over 107,000 user email accounts and almost 8,000 SharePoint sites.

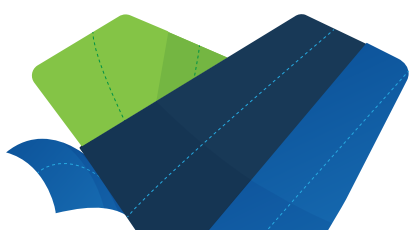
ICT Infrastructure and Interoperability

The introduction of point of care electronic health record management systems, Telehealth, remote vital signs monitoring, and the ability to share diagnostic results online all require investments in infrastructure for high grade, high availability digital connectivity, supported by appropriate point of care technologies.

This includes updating ageing facility telecommunications infrastructure, deploying

Wi-Fi networks, improving network connectivity, implementing modern collaboration platforms and network file services.

Replacement of legacy integration systems is underway that will enable more reliable and efficient information exchange between Queensland Health systems.



June Digital Projects Dashboard

Project Duration and Key Milestone Report

* Projects with a latest approved or proposed budget of greater than or equal to \$10m are included in this report, therefore the number of projects reported does not align with those published on the Queensland Government Digital Projects Dashboard.

	2019												2020												2021												2022											
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec					
Backup Asset Replacement																																																
Financial System Renewal (FSR) Project																																																
Identity Access Management Project																																																
ieMR Program (Funding Package 3 and 4) (go-live dates provided from June ieMR Program status report)																																																
ieMR Program (Funding Package 5)																																																
ieMR Program (Funding Package 6)																																																
Integrated Referral Management Solution (IRMS)																																																
Integrated Workforce Management (IWM) Project - Stage 2																																																
Laboratory Information System Program (LIS Program)																																																
Medical Imaging Informatics Solution (MIIS) Risk Mitigation																																																
Notifiable Conditions System Replacement																																																
Patient Online Portal (POP)																																																
Regional eHealth Project																																																
Restrict and Secure Privileged ICT Access (RSPiA)																																																
Infrastructure Maintenance Program (IMP)																																																
Interoperability																																																