



# Allied Health Digital Transformation Roadmap

2023 - 2033



The Office of the Chief Allied Health Officer acknowledges the Traditional Custodians of the land on which we work. We pay our respect to the Aboriginal and Torres Strait Islander Elders past, present and emerging.

## Allied Health Digital Transformation Roadmap - 2023-2033

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# Message from the Chief Allied Health Officer

Digital transformation is changing the way we provide services and interact with our patients, consumers, and families. Allied health service models and approaches to data insight generation are developing rapidly and supporting sustainable service, workforce and system decision making. In the next ten years, opportunities for digital transformation will continue to accelerate and the allied health workforce is well placed to leverage existing innovations and expertise and drive new digital transformation opportunities at scale.

This Allied Health Digital Transformation Roadmap (the “Roadmap”) sets the direction for realising the digital transformation vision for allied health to:

*“Optimise the use of digital technology to enhance client care, improve safety and quality, and measure service performance and client outcomes”.*

The Roadmap outlines a series of high-level initiatives that can be implemented and driven over the next 10-years and functions as a key lever to achieve the strategic priorities under the digital transformation enabler of the [“Optimising the allied health workforce for best care and best value: A-10 year Strategy 2019-2029”](#).

Achieving digital transformation across the different hospital and health service environments and diverse allied health professions requires collaboration and a shared responsibility. Across the Queensland Health system, opportunities to implement the Roadmap initiatives will be identified and embedded and existing digital innovation will be leveraged to support sustainable change. Allied health leadership, workforce, clinical education, training, and research all have a role in this transformation to enable changes to be integrated into existing planning and practice. The Roadmap acts as a call to action at all levels within Queensland Health to guide and direct the journey of digital transformation for allied health.

Together we can work towards collaboratively implementing and achieving the initiatives and goals of the Roadmap and realise the potential of digital transformation for our patients, consumers and families, and the allied health workforce.



**Liza-Jane McBride**  
**Chief Allied Health Officer**  
**Office of the Chief Allied Health**

# Introduction

The Allied Health Digital Transformation Roadmap 2023-2033 sets the direction and acts as a lever to achieve the strategic priorities under the digital transformation enabler of “Optimising the allied health workforce for best care and best value: A 10-year strategy 2019-2029”.

Digital Transformation is the process of implementing and embedding current and emerging technological advancements to improve efficiency, enhance value and embrace innovation. Globally, healthcare services are utilising digital innovations and data insights to deliver care that meets the needs of today’s patients and consumers. Allied health practitioners are committed to delivering high quality, client-centred care, and digital transformation will enable them to continue delivering this care over the next 10 years.



## Development of the Roadmap

Development of the Roadmap has been informed by best practice evidence and broad consultation with Queensland Health stakeholders and external partners. Importantly, mapping and analysis of the current state of digital transformation within Queensland Health allied health was undertaken and identified exemplar digital innovation that is occurring, what can be learned or leveraged from these changes and experiences, and what challenges need to be overcome to realise opportunities at scale.

Internal consultation with clinicians and other Queensland Health stakeholders highlighted examples of excellence in all areas of allied health from digitally enabled models of care utilising technology such as SMS, telehealth, virtual reality and remote patient monitoring, to the generation of allied health service and clinical insights from data. For many of these innovations, implementation and outcomes are being evaluated rigorously through research in collaboration with local and international research partners. Stakeholders identified that engaged and supportive leadership is critical to enabling digital transformation and that digital champions are needed across all levels of the system to support testing and implementation of innovation and digital capability and capacity building. All levels of the system identified that streamlined, functional and efficient technology systems, platforms and processes were key to success and that there is great diversity in digital maturity, infrastructure and capability across all hospitals and health services which needs careful consideration for implementation. Further detail about the Current State mapping is available on request.

A key component of consultation was consumer engagement. While the Roadmap is targeted at the workforce, its ultimate aim is to enhance clinical care. Consumers told us that communication, learning from others, and co-design is critical.

They offered many examples of how digital transformation can improve access to care and consumer experiences with the health system, based on their previous interactions with multiple poorly integrated information systems across their health care pathways. Consumers told us that from their perspective, digital systems that contribute to transformation should present a seamless experience where their information is only requested once, and only when required, and that all consumers should be given the opportunity of digitally enabled care, regardless of age and apparent digital literacy, without clinicians acting as gatekeepers.

These learnings and opportunities have been used to shape initiatives identified in the scale and spread and support sustainable and equitable digital transformation.



# The vision for Digital Transformation in Allied Health is to:

Optimise the use of digital technology and data insights to enhance client care, improve safety and quality, and measure service performance and client outcomes



The following guiding principles will support decision making and prioritisation of actions for implementation of the Roadmap.

## Guiding principles



A person-centred and holistic approach is taken in digitally enabling allied health care



Digital transformation drives equity in access to health care and optimised health outcomes



Initiatives are guided and supported through a collaborative approach with all stakeholders



Change considers the unique strengths and needs of the various allied health professions



Digital Transformation enables patients and consumers to be engaged, informed and empowered with their care

## Aims of the Roadmap

The Roadmap outlines the high-level initiatives that will progress the digital transformation of allied health service delivery and practice over the next 10 years.

It considers the diverse mix and expertise of allied health professions, workforce capabilities and strengths, and service opportunities in four key action areas below. The Roadmap also recognises the different stages of digital maturity across Queensland's remote, rural, regional and metropolitan Hospital and Health Services by describing the "Outcomes" intended in each key action area to enable locally contextualised implementation.



### Digitally enabled care

Digital health technologies are integrated into routine allied health practice and service delivery enabling safe, high quality allied health care.



### Workforce capability and digital leadership

Allied health professionals are digitally capable, actively influence and contribute to digital transformation that enables high quality safe care, improves service delivery, and enhances patient and client outcomes.



### Data informed planning and outcomes

Allied health practice and services are informed by data and insights to improve planning, performance and patient outcomes.



### Digitally transformed research and innovation

Digital transformation is enabled by, and enables, allied health research and innovation that drives knowledge creation and evidence-based practice.

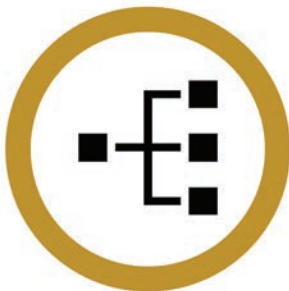
# Delivery of the Roadmap

Importantly, everyone has a role to play in delivering the Roadmap and realising the opportunities of digital transformation. It is intended to inspire and empower allied health clinicians, managers and leaders to drive digital transformation at 3 distinct levels: Local Allied Health Workforce (Workforce), Health Services (Service) and Statewide (System).



## At a system level

Lead a strategic, statewide approach to digital and data innovation in allied health to transform patient care and improve safety, quality and service performance, including client outcomes.



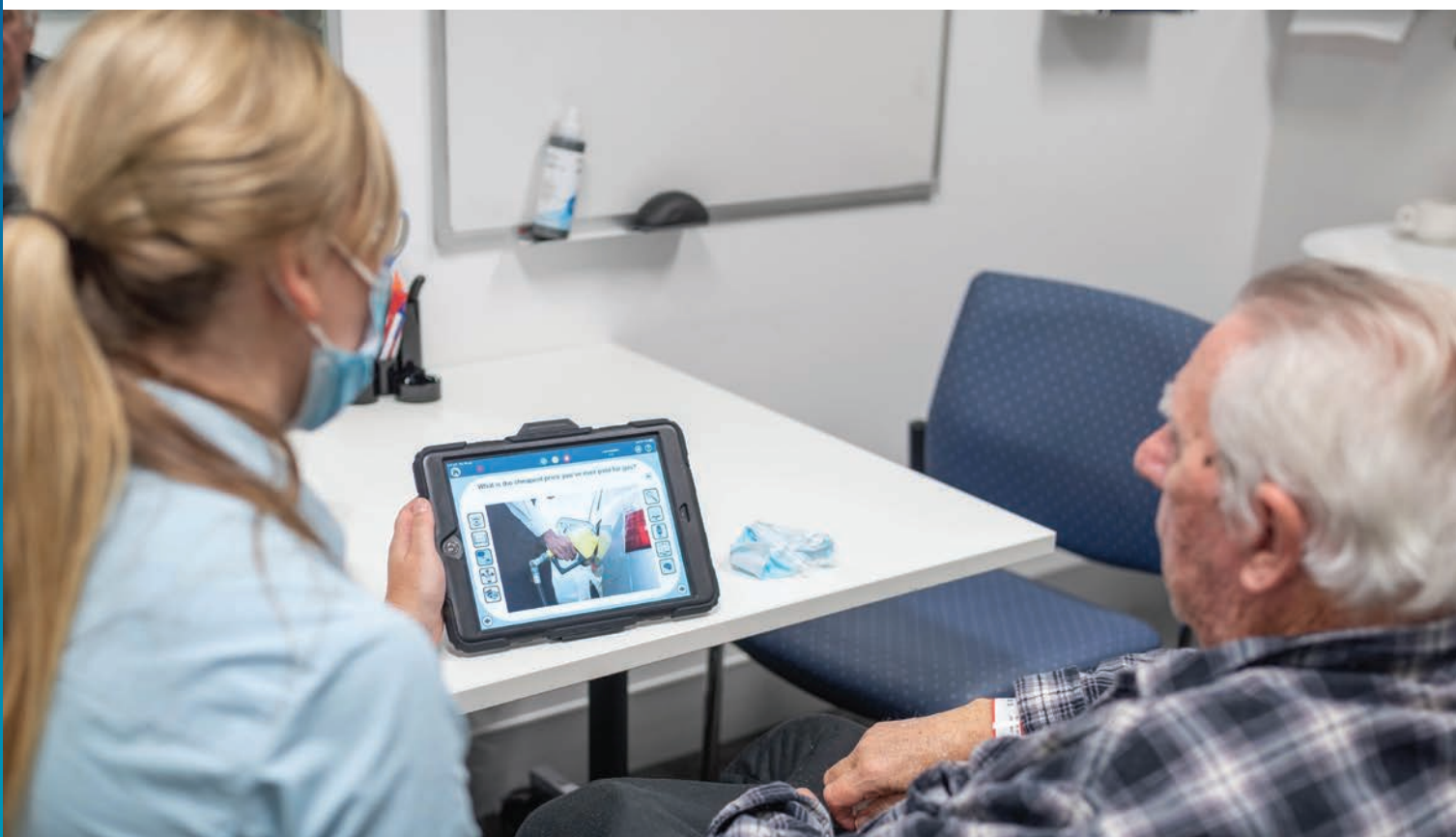
## At a service level

Assist hospital and health services to embed digital and data innovation in allied health, transform patient care, improve safety, quality and service performance including client outcomes.



## At a workforce level

Enable the Queensland Health allied health workforce to engage with and use digital and data innovation in allied health, transform patient care, improve safety, quality and service performance including client outcomes.





# An overview of the Roadmap



## Digitally Enabled Care

### Outcome Statements

1. Digital technologies are embedded into routine allied health care and service delivery.
2. Allied health staff are confident in identifying, implementing and evaluating digital technologies within their practice and services.
3. Patients and consumers are empowered and enabled to utilise digital technologies to enhance their health care journey.
4. Clinical need, evidence-based practice, and research inform decision making regarding infrastructure and resourcing in the implementation of safe and high quality digitally enabled care.

### Initiatives

1. Identify and develop clinical governance mechanisms, policy and guidelines to support the safe and appropriate implementation of digital technologies into allied health practice.
2. Establish targeted and collaborative approaches to the implementation of digitally enabled models of care including formal evaluation of outcomes and mechanisms for scale and spread.
3. Adopt a strategic approach to assessing and elevating digital solutions based on clinical need and organisational priorities.
4. Enhance collaborative partnerships with consumers, engaging consumers in the planning, co-design, and implementation of digitally enabled care.



## Data Informed Outcomes and Planning

### Outcome Statements

1. Evidence based outcome measures drive high value health care through easy access to validated tools.
2. Allied health professionals have access and trust in data and insights that is meaningful and valid to guide practice and inform planning, performance and improvement.
3. Strategic leadership and governance promotes consistency of data collections and tools.
4. Compelling stories regarding the value of allied health services are told and excellence is showcased

### Initiatives

1. Prioritise meaningful metrics that reflect allied health activity that directly relates to clinical outcomes, to strengthen evaluation of allied health models and services and address system priorities.
2. Adopt a strategic approach to the development and use of minimum data sets aligned to the Allied Health National Best Practice Data set.
3. Establish a shared understanding of the value and use of patient generated data within allied health practice and to inform the delivery of high value patient and consumer outcomes, service planning and performance initiatives.
4. Promote the shared adoption of consistent mechanisms and tools for the collection of data, and generation of insights to improve planning, performance and patient outcomes.



## Workforce Capability and Digital Leadership

### Outcome Statements

1. Allied health professionals are capable and future ready to adopt and use digital and data insights in their practice.
2. Digital capabilities are embedded in clinical allied health roles to support the provision of safe and effective allied health care in a digital health environment.
3. Allied health digital career pathways are embedded within services.
4. Allied health professionals and leadership are confident to drive change, adopt new ways of working, and enable and embed digital and data innovation within allied health services and practice.
5. Allied health have access to, and are viewed as leaders in multi-disciplinary digital innovation initiatives and actively participate and advocate in key decision making groups and forums.

### Initiatives

1. Develop and embed allied health digital capabilities in frameworks and standards of practice for the introduction and use of digital/virtual technologies and data insights.
2. Build the capability of the workforce to implement digital and data innovations within services.
3. Support leaders to confidently advocate and influence for the digital transformation of allied health throughout Queensland Health.



## Digitally Transformed Research and Innovation

### Outcome Statements

1. Allied health professionals are actively involved in effective industry and research partnerships to test, embed and evaluate digital and data innovations.
2. Digital research priorities are informed by clinical service and community need and are focused on opportunities that can be feasibly translated into practice.
3. Allied health professionals are able to effectively navigate data governance systems and processes and utilise digital tools for research.

### Initiatives

1. Create opportunities that foster collaborations and connections between consumers, allied health researchers and clinicians, academics, and industry partners.
2. Improve alignment of allied health digital research activity at local, service and statewide levels to identified priorities.
3. Improve navigation of existing data sets, governance systems and processes, and adopt a strategic approach to realise future data driven health care improvement and research.
4. Optimise utilisation of digital tools that can enable the efficiency, effectiveness and quality of research and innovation.



# Digitally Enabled Care

## Strategic Objective

Digital health technologies are integrated into routine allied health practice and service delivery enabling safe, high quality allied health care.

## Outcome Statements

- Digital technologies are embedded into routine allied health care and service delivery.
- Allied health staff are confident in identifying, implementing and evaluating digital technologies within their practice and services.
- Patients and consumers are empowered and enabled to utilise digital technologies to enhance their health care journey.
- Clinical need, evidence-based practice, and research inform decision making regarding infrastructure and resourcing in the implementation of safe and high quality digitally enabled care.

## Initiatives

### 1. Identify and develop clinical governance mechanisms, policy and guidelines to support the safe and appropriate implementation of digital technologies into allied health practice.

Delivery of this initiative will look to:

- Develop a framework to support local clinical governance processes to ensure safe, quality use of digital technologies.
- Leverage existing governance structures to provide leadership and advocacy, improve coordination and reduce unwanted variation within professions and across HHSs.

### 2. Establish targeted and collaborative approaches to the implementation of digitally enabled models of care including formal evaluation of outcomes and mechanisms for scale and spread.

Delivery of this initiative will look to:

- Create a central repository of supportive resources on digitally enabled models of care including business cases and model of care redesign documentation.
- Develop tools and resources to support allied health staff and managers to evaluate and implement new and emerging technologies and for managers to transition existing services to virtual or hybrid care models, where safe and appropriate.

### **3. Adopt a strategic approach to assessing and elevating digital solutions based on clinical need and organisational priorities.**

Delivery of this initiative will look to:

- Utilise relevant governance mechanisms to identify and prioritise key allied health digital tools and solutions for panel arrangements or transition to statewide (enterprise) arrangements.

### **4. Enhance collaborative partnerships with consumers, engaging consumers in the planning, co-design, and implementation of digitally enabled care.**

Delivery of this initiative will look to:

- Foster a patient and consumer-centred approach to redesign of digitally enabled care, including the use of resources such as: A Guide for Health Staff-Partnering with Consumers (Health Consumers Queensland, 2018) and the Queensland Health-Allied Health Value Based Care Framework.
- Develop a model for clinician engagement with patients and consumers to understand the potential value and support choice in the adoption of digitally enabled care.
- Use digital technologies to support patient and consumer health literacy, self-management, and patient and consumer choice.



# Data Informed Planning and Outcomes

## Strategic Objective

Allied health practice and services are informed by data and insights to improve planning, performance and patient outcomes.

## Outcome Statements

- Allied health professionals have access and trust in data and insights that is meaningful and valid to guide practice and inform planning, performance and improvement.
- Evidence-based outcome measures drive high value health care through easy access to validated tools.
- Strategic leadership and governance promotes consistency of data collections and tools.
- Compelling stories regarding the value of allied health services are told and excellence is showcased.

## Initiatives

- 1. Prioritise meaningful metrics that reflect allied health activity that directly relates to clinical outcomes to strengthen evaluation of allied health models and services and address system priorities.**

Delivery of this initiative will look to:

- Identify and prioritise key allied health metrics within HHSs and across professions that demonstrate effectiveness, quality clinical outcomes and impact to service level performance.
- Support allied health leaders and managers to use relevant measures, including PREMS and PROMS to demonstrate high value contribution to system level priorities.

- 2. Adopt a strategic approach to the development and use of minimum data sets aligned to the Allied Health National Best Practice Data set.**

Delivery of this initiative will look to:

- Develop data sets and guidelines on use of minimum data sets to inform clinical practice, decision making and advocacy for allied health services.
- Utilise relevant governance structures to guide quality, access and consent of allied health data sets.



## Initiatives

### **3. Establish a shared understanding of the value and use of patient generated data within allied health practice and to inform the delivery of high value patient and consumer outcomes, service planning and performance initiatives.**

Delivery of this initiative will look to:

- Utilise relevant governance structures to identify and prioritise allied health requirements for the collection and use of patient generated health data.

### **4. Promote the shared adoption of consistent mechanisms and tools for the collection of data, and generation of insights to improve planning, performance and patient outcomes.**

Delivery of this initiative will look to:

- Work collaboratively across the state to establish options for how data is collected for agreed datasets across diverse HHS and profession groups.
- Work collaboratively across the state to enable sharing of existing and expanded access to tools for the generation of insights.
- Work collaboratively across the state to align development of mechanisms and tools which prioritise patient outcomes and the use of relevant measures.
- Explore opportunities for allied health “Big Data” including data linkage, analysis and visualisation for insights.
- Pursue opportunities to leverage emerging technologies to gain insights from new data sets such as artificial intelligence/machine learning.



# Workforce Capability and Digital Leadership

## Strategic Objective

Allied health professionals are digitally capable and actively influence and contribute to digital transformation that enables high quality safe care, improves service delivery, and enhances patient and client outcomes.

## Outcome Statements

- Allied health professionals are capable and future ready to adopt and use digital and data insights in their practice.
- Digital capabilities are embedded in clinical allied health roles to support the provision of safe and effective allied health care in a digital health environment.
- Allied health digital career pathways are embedded within services.
- Allied health professionals and leadership are confident to drive change, adopt new ways of working, and enable and embed digital and data innovation within allied health services and practice.
- Allied health have access to, and are viewed as leaders in multi-disciplinary digital innovation initiatives and actively participate and advocate in key decision making groups and forums.



### 1. Develop and embed allied health digital capabilities in frameworks and standards of practice for the introduction and use of digital/virtual technologies and data insights.

Delivery of this initiative will look to:

- Understand and develop the common foundational capabilities allied health professionals require for the use of digital and data technologies.
- Embed digital and data capabilities within existing capability frameworks to support digital transformation and use of emerging technologies.

### 2. Build the capability of the workforce to implement digital and data innovations within services.

Delivery of this initiative will look to:

- Leverage existing training and development opportunities, across the state and with external partnerships, that support skills in service redesign, implementation science, project and change management to enable digital transformation.
- Identify emerging digital and data capability needs and support opportunities for continued workforce capability development.
- Provide opportunities for allied health at all levels to utilise their existing digital and data capabilities to contribute to quality improvement, innovation and workforce capability development.

### 3. Support leaders to confidently advocate and influence for the digital transformation of allied health throughout Queensland Health.

Delivery of this initiative will look to:

- Develop digital health leadership capabilities and foundational knowledge in allied health leaders.
- Empower allied health leaders to identify and engage with opportunities to contribute to planning, design and adoption of digital and data innovation across the Queensland Health system, hospital and health services and allied health workforce.
- Leverage relevant statewide planning networks and governance structures to influence decision making and prioritisation of investment into system enhancements and infrastructure for allied health.



# Digitally Transformed Research and Innovation

## Strategic Objective

Digital transformation is both enabled by, and enables allied health research and innovation to drive knowledge creation and evidence-based practice.

## Outcome Statements

- Allied health professionals are actively involved in effective industry and research partnerships to test, embed and evaluate digital and data innovations.
- Digital research priorities are informed by clinical service and community need and are focused on opportunities that can be feasibly translated into practice.
- Allied health professionals can effectively navigate data governance systems and processes and utilise digital tools for research.

## Initiatives

### 1. **Create opportunities that foster collaborations and connections between consumers, allied health researchers and clinicians, academics, and industry partners.**

Delivery of this initiative will look to:

- Leverage existing digital and data collaborations and programs that bring partners together to solve clinical and service challenges.
- Explore the establishment of academic and industry partnership grants that support digital and data innovation.
- Prioritise the development of high-value digital research programs that are likely to be competitive for large scale national and international funding opportunities.



**2. Improve alignment of allied health digital research activity to local, service and statewide priorities.**

Delivery of this initiative will look to:

- Identify key allied health digital research priorities that address consumer, local, service and statewide needs.
- Incentivise digital research activities that are aligned with identified priorities.
- Showcase digital innovation research achievements at local, state, national and international forums.

**3. Improve navigation of existing data sets, governance systems and processes, and adopt a strategic approach to realise future data driven health care improvement and research.**

Delivery of this initiative will look to:

- Support capacity building of clinician researchers and research leaders in accessing data and navigating data governance requirements at local and statewide levels.
- Partner with key stakeholders to develop tools and resources to support allied health staff and managers to effectively and efficiently obtain relevant ethics and governance approvals.
- Explore opportunities for allied health “Big Data” including data linkage, analysis and application for research and innovation.

**4. Optimise utilisation of digital tools that can enable the efficiency, effectiveness and quality of research and innovation.**

Delivery of this initiative will look to:

- Develop mechanisms to identify and prioritise digital tools that enable research.
- Support local advocacy for uptake and implementation of digital tools for research.
- Support research teams and leaders to embed digital capabilities into research practice locally.

# Implementation of the Roadmap and Enabling Environment

Implementation will be driven by the relevant hospital and health services, statewide leadership and allied health professionals. The starting point for delivery of the Roadmap will be different across the health system, services, and workforce. Key to the successful delivery of the Roadmap is collaboration between Queensland Health at every level with internal and external partners; the consideration of patients and consumers will be integral.

Successful implementation of the Roadmap requires an enabling environment that supports and sustains digital transformation. These factors are key to success, however while these are within the sphere of influence of allied health leadership and workforce, they are outside of the sphere of control. Allied health can be strong advocates for ensuring these enabling factors are considered and optimised for implementation of the Roadmap.





### **Mobilisation of executive, decision makers and partners**

Decision makers and executives who are engaged and collaboratively action the Roadmap initiatives.



### **Leadership and culture**

An open and supportive environment is embedded across the system and encourages and supports change.



### **Contemporary funding levers**

Funding and policy that is adaptive to the changing health care environment and promote a shift to digitally enabled care.



### **System interoperability**

Existing and newly adopted technologies are fit for purpose and support seamless sharing of information.



### **Digital infrastructure and connectivity**

Contemporary physical and virtual infrastructure that supports equitable access and high quality service delivery.



### **Data access and governance**

Legislative and governing environment that supports the curation, access and use of data for care, improvement, planning, performance and research.

