
Case Study



Associate Professor Clair Sullivan

University of Queensland and Queensland Health

Advisory Group Member

This case study focuses on providing insights into the follow key questions about innovation in assessment:

1. **Context:** Provide a brief background about your institution, your learners and assessors.
2. **Purpose:** Explain the rationale for your innovation in assessment – what problems or challenges were you attempting to address through your approach?
3. **Design:** What are some smart design principles you used to maximise the success of your assessment innovation? (Consider any international guidelines i.e. AMC standards)
4. **Implementation:** What challenges did you face in implementing the new approach? How did you maximise a smooth transition and take up of the new approach?
5. **Evaluation:** How did you evaluate the success of your assessment innovation? On reflection, what if anything would you do differently if you knew what you now know?
6. **Future focus:** What are your next steps and what are you working on now to further improve your system of assessment?

CONTEXT

Queensland has a strategy to improve patient outcomes through the implementation of a single statewide instance of an electronic medical record. This rollout is being undertaken in a strategic manner with three horizons of digital transformation (*Figure one*).



Figure 1: Digital Health Strategy for Metro North HHS

This technology facilitates the collection of rich, structured clinical information during each visit. The information recorded includes each blood pressure, heart rate and coded diagnoses using Systematic Nomenclature for Medical Diagnoses (SNOMED).

The fact that this data is collected for every patient, every time, in real time, means that Queensland has a rich and detailed clinical database.

There is an increasing requirement to develop digital literacy and fluency within our workforce through training programs that target new technologies. To effectively harness the value of our digital transformation, the strategic direction for clinical education must be responsive and adjust its curriculum to meet the evolving needs of our interconnected health system.

The literature emphasises the importance of using a multifaceted approach to the implementation of health technologies including educational and training support. We therefore realign these to best support clinicians interacting with the digital health platform.

It will be imperative that our workforce has access to an adequate environment focussed specifically on digital health and equipped to train digital workflows, content, applications, data, analytics, innovation and research.

PURPOSE

The aim of QDA is to provide a centrally coordinated hub and spoke approach that offers educational opportunities in digital healthcare to develop digital literacy, support digital transformation and build digital leadership capacity and capability, capacity and digital health research across Queensland Health.

QDA will address a core need in Queensland Health by developing digital literacy across three horizons.

Horizon one: Digital basics

The focus will be on foundational computer training and digital training using multimodal delivery methods workflow rehearsals. Standardised clinical and administrative workflows will be defined by the relevant digital clinical groups and trained by QDA. This training will enable site training for any digital system go live but will also facilitate the ongoing training and adoption depth.

Horizon two: Data literacy and clinical redesign for better outcomes

Building on skills learned in horizon one this intermediate level program will train digital champions in the principles of clinical informatics and digitally-enabled health systems improvement. Horizon two will also include formalised training pathways for existing staff to attain higher level skills.

Horizon three: Digital innovation and leadership

This advanced level program will train digital leaders and researchers in clinical informatics and digitally-enabled change leadership.

DESIGN

Guiding principles

QDA will have four guiding principles to create a collaborative and open culture with shared vision underpinned by transformational leadership. These ensure its outcomes will reflect an adaptable and personalised approach to learning that can be tailored to a local context.

1. Digital education

Develop a saturation of digital clinicians and leaders who can optimally use the ieMR system (initially with the option to expand to other digital platforms and technologies including the new Laboratory Information System and Patient Administration System) through formalised training pathways and leverage the digital transformation of Queensland Health for the betterment of patient outcomes and healthcare service efficiencies.

2. Clinical redesign

Develop and foster expertise in digital clinical redesign, enabling the development and delivery of new and efficient models of care that influence digital systems to improve patient journey, improve staff experience, reduce cost of healthcare delivery and improve the health of the population.

3. Clinical innovation

Develop and foster expertise in digital clinical solution ideas and innovations. Enable the application of new technologies, innovative partnerships, and new approaches to enhance and transform clinical care.

4. Industry and education partnerships

Foster and develop collaborative working relationships and strategic partnerships to drive value, research and innovation in healthcare and establish formalised training pathways and collaborations.

The content is structured over three horizons to compliment the digital health strategy (*Figure 2*)

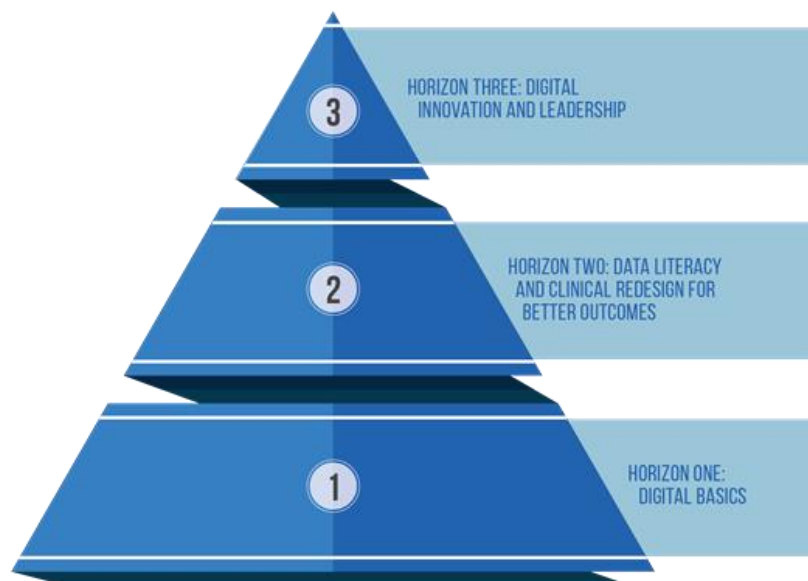


Figure 2: QDA content

IMPLEMENTATION

QDA has been operational now for over 18 months. Over that time, there has been a merging with the University of Queensland Digital Health Research Group and the University is now creating content for delivery via QDA. In 2020 UQ created a short course Basic Clinical Digital Health (Badge level) which has just been delivered to 1600 clinical staff starting at Metro North in 2021 and is in negotiations with Metro South to provide a pilot of this basic course to 50 staff. UQ has been funded by the DHCRC to develop a graduate certificate in digital health and clinical informatics for 2022. UQ now hosts 12 digital health PhD students.

EVALUATION

No formal evaluation of the learning effects has taken place yet, but there is early anecdotal evidence of students finding value with the courses, with routine evaluations uniformly positive. A formal project for evaluation in 2021 by the University of Queensland has just been approved.

FUTURE FOCUS

As funding in the health sector becomes constrained and the academic sector embraces digital health, increasingly the work around digital literacy will be embedded in the undergraduate and postgraduate offerings at UQ. We would consider it an ideal outcome that eventually, QDA is no longer needed, and digital health becomes a routine part of all health care education.