

Digital Health Transformation – Improving Patient Outcomes

2022-2032





Acknowledgement of Country

The Department of Health Tasmania respectfully acknowledges Tasmanian Aboriginal people as the traditional custodians of the land on which we live, work and play and pays respect to Aboriginal Elders past and present.

Recognition statement

Tasmanian Aboriginal peoples' traditional lifestyle promoted physical and emotional health and wellbeing, centred around Country, Kin, Community and Spirituality. Aboriginal people continue to value the importance of culture, community connection and being on Country as vital components of health and wellness. Through colonisation, Aboriginal people experienced displacement and disconnection, which has significantly affected their health and wellbeing. We recognise that Aboriginal people are the knowledge holders and provide best practice in promoting health and wellbeing for Aboriginal people. We acknowledge and learn from the ongoing work of Aboriginal organisations in ensuring continued health and wellness. We commit to working in partnership with Tasmanian Aboriginal communities and health leaders now and into the future to improve health and wellbeing.



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Glossary

Acronym/ Abbreviation	Description
ACCRM	The Australian College of Rural and Remote Medicine
AI	Augmented Intelligence/Artificial Intelligence
AMA	Australian Medical Association
ANMF	The Australian Nursing and Midwifery Federation
API	Application Programming Interface – a type of software interface that offers a service to other pieces of software.
AT	Ambulance Tasmania
Care Team	A team of health professionals, such as general practitioners, specialists, nurses and allied health workers providing care to a patient, and may include an enduring guardian. This concept was used to establish ‘Care Teams’ for consultation focussed around a specific cohort of consumers, some care teams also included consumers.
Consumer	Patients, patients’ carers, patients’ families and the broader community.
Consumer Portal	The consumer portal acts as the digital front door to accessing a health services. This includes scheduling of appointments, personal details and accessing results and medical advice.
CIS	A Clinical Information System (CIS) is a system that gathers, stores and alters clinical data on patients.
Core Clinical Record	An electronic version of the patient’s medical record. It will be made up of clinical systems of record used across all THS services (e.g. outpatients, wards, emergency, virtual care, community care, etc.).
DMR	Existing clinical information systems supporting inpatient settings (Digital Medical Record).
DoH	Department of Health
ED	Emergency Department
EMM	Electronic Medication Management
EMR	Electronic Medical Record
ePCR	Electronic Patient Care Record/Reporting
eReferral	Electronic referral
FHIR	Fast Healthcare Interoperability Resource is an international standard describing data formats and elements, and an application programming interface (API) for exchanging information in a healthcare context.
GP	General Practitioner/General Practice
HITH	Hospital in the Home
HL7	Health Level Seven (HL7) is a set of international standards that provide guidance around transferring and sharing data between various healthcare providers.

Acronym/ Abbreviation	Description
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IHI	Individual Healthcare Identifier; Australia wide unique patient identifier.
Integrated Care Platform	A solution or solutions that supports the secure sharing of an electronic summary of the patient's medical record, which helps to connect participants in care (e.g. consumers, clinicians across Tasmania and interstate, diagnostic services, etc.). The integrated care platform will draw on systems of record in various healthcare settings as well as other systems of record in primary care where appropriate.
IoT	Internet of Things (IoT) refers to a network of physical devices that use connectivity to enable the exchange of data, that can assist health professionals perform their jobs.
KPI	Key Performance Indicator
mHealth	mHealth refers to health care practice enabled by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants and other devices.
PAS	Patient Administration System
PHN	Primary Health Networks (PHN) are independent organisations funded to co-ordinate primary care in a region i.e. Primary Health Tasmania.
PHT	Primary Health Tasmania – the PHN that operates in Tasmania.
PSA	The Pharmaceutical Society of Australia
Quadruple Aim	An approach to optimising health system performance by improving the health of populations, enhancing the patient experience of care, reducing the per capita cost of health care and improving the work life of health care clinicians and staff.
RACGP	The Royal Australian College of General Practitioners
RACS	The Royal Australasian College of Surgeons
Specialist Systems	Systems that support a specific clinical requirement that is unique to a clinical area of practice/ specialty.
Telehealth	Telehealth services use information and communication technologies to deliver health services and share health information over both long and short distances in the form of video conferencing or telephone.
TGA	Therapeutic Goods Administration
THS	Tasmanian Health Service
TrakED	Existing clinical information system in use in Emergency Departments.
UTas	University of Tasmania

Message from the Premier, Minister for Health and Minister for Mental Health and Wellbeing

I am excited to release the **Digital Health Transformation – Improving Patient Outcomes for Tasmania**.

The Strategy is underpinned by a significant, anticipated investment of \$476 million to be allocated over the next ten years, beginning in 2022-23, and the change impact from this investment will be immense.

It will not only provide the opportunity for Tasmania to become the first Australian State to deliver a fully integrated health care system but will increase capacity in the system so more Tasmanians can get access to the healthcare they need.

Over the past eight years, the Tasmanian Government has invested heavily into health, from funding new hospital facilities, to employing new staff and delivering new health care services across our communities. Through our response to the COVID-19 pandemic, we have set a new benchmark in deploying digital health technologies with the success of our innovative COVID@Home program.

The success of our response to the pandemic is due to the hard work and skill of our health professionals, and again I thank them for their work.

However, we acknowledge that despite our investments into every level of the health system, challenges remain. An ageing population and increased rates of chronic disease are driving up demand for hospital care, and demand is projected to increase significantly over the next 20 years. All too often Tasmanians end up in hospital because it is the only care available – not because they need hospitalisation.

We have heard from our health professionals that too much of their time is spent chasing up paperwork, or duplicating tests, because our community health care and hospital sectors don't interact with each other. We also acknowledge that Tasmanians are having to spend time travelling to major centres for access to health specialists.

Our **Digital Health Transformation – Improving Patient Outcomes for Tasmania** will change this and act as a circuit breaker to not only shift more care into the community and prevent unnecessary hospital visits but also to improve access to healthcare. This investment will enhance access to patient information for our health professionals and reduce time spent on unnecessary duplication of tests or administrative tasks.

With virtual care, such as telehealth, we can deliver a range of safe, treatment options in our communities, providing healthcare for more Tasmanians and making health care more convenient for individuals and families.



With a statewide integrated care platform, we can improve communications and the transfer of information across care settings for hospitals, community health, GP, specialists, allied health, to reduce hospital admissions and the cost of care, benefiting both patients and health professionals.

Through investment in digital technologies, we can optimise decision-making using advanced data and analytics, while giving our health professionals access to the right data, in the right place, at the right time, improving outcomes for patients.

The Tasmanian Government recognises that improvements in healthcare must be informed by clinicians and all staff in our health system, consumers and the wider Tasmanian community, and this Strategy is informed by an extensive consultation process. In developing the Strategy we've accessed and considered national and global expertise in the use of digital technologies to improve access to healthcare and health outcomes for patients.

And importantly, as we implement the Strategy, patients will continue to be at the centre of everything we do.

Through the adoption of world-class digital technologies and by executing this Strategy, Tasmania has a real opportunity to become a leader in improved access to healthcare and improved clinical outcomes for patients.

Jeremy Rockliff MP

Premier, Minister for Health and Minister for Mental Health and Wellbeing

Messages from our stakeholders

“This investment will enable the seamless sharing of a patient’s health information across clinical and organisational boundaries. As a result, those using our health system will see improved health outcomes, with appropriate services able to be safely delivered closer to home, and providers will see real improvements in the safety, quality and efficiency of clinical practice.”



Prof Tony Lawler – Chief Medical Officer and Deputy Secretary Clinical Quality, Regulation and Accreditation



“A statewide Digital Health Transformation that considers the information needs of our GPs and other primary care providers is a huge step towards a truly patient-centered healthcare system. Primary Health Tasmania is excited to be involved in the execution of this strategy over the coming years.”

Phil Edmondson – CEO Primary Health Tasmania

Delivering the Health Infrastructure of the future includes consideration to both built and digital capabilities. Strong digital capability will allow us to optimise the use of our built infrastructure, driving the best value from our complementary investments and improving service delivery.



Shane Gregory – Deputy Secretary Infrastructure



“We have data rich systems, but not the tools to derive real-time insights. We don’t need more data; we need information relevant to the situation in an accessible, agile timely manner. The focus on informatics and analytics in this strategy will finally move us in that direction.”

Dr Sonj Hall – Deputy Secretary Policy, Purchasing, Performance and Reform

“Healthcare professionals providing services in the community will be able to access and share information with clinicians in both hospital and primary care settings. This will lead to more “joined up care” for our patients accessing care in different settings, meaning the community won’t be having to endlessly retell their story.”



Dale Webster – Deputy Secretary Community, Mental Health and Wellbeing



“This strategy will give allied health professionals data and information at the point of care that will improve how we work with patients and other health professionals to plan and deliver patient centred care in hospital and the community. In the longer term, this strategy will also enable allied health professionals to harness innovation and adapt services based on improved health informatics.”

Kendra Strong – Chief Allied Health Advisor

Messages from our stakeholders



“Digital transformation in the health sector is more than technical change, it will require our clinicians to transform how they deliver care supported by a dedicated workforce plan. This strategy will allow us to not only improve how we deliver services to the community, but also increase our ability to retain and attract talented staff.”

Susan Gannon – Chief Executive Hospitals South

“With the increasing complexity of patients, clinicians are crying out for tools that give us a complete picture of the patient at point of care to aid in prompt, safe and efficient healthcare delivery. This investment will deliver that complete view through a fit for purpose electronic medical record.”

Eric Daniels – Chief Executive Hospitals North / North West



“Ambulance Tasmania meets the needs of Tasmanians across a range of settings – from emergency response, to secondary triage, to after-hours healthcare services. Having our systems integrated with acute and primary care settings means our paramedics will have the information they need to make the best possible decisions for patients in a timely and safe manner.”

Joe Acker – Chief Executive Ambulance Tasmania

“Having patients’ clinical information available in one place means our nurses and midwives will spend less time looking for information and more time with our patients, delivering person centred care.”

Francine Douce – Chief Nurse and Midwife



“In developing this Digital Health Transformation for Tasmania, we have listened to our clinicians, administrators and the community to understand their needs. We have looked at what is working locally, elsewhere in Australia and globally to develop a strategy that will deliver first class digital solutions supporting the delivery of great care.”

Warren Prentice – Chief Information Officer



Executive Summary



Executive Summary

The Our Healthcare Future paper identifies a set of health challenges facing Tasmania and Tasmanians. The Digital Health Transformation deals with the role of digital technologies in helping to solve these challenges, and lays out a set of digital initiatives to be delivered over a 10 year period.

Tasmania has been a leader in its response to the COVID-19 pandemic, and now Tasmania has the opportunity to become a leader in Digital Health.

An ageing population and increasing rates of chronic disease are driving up both the demand for healthcare services, and the cost of delivering those services.

Increasing the capacity of the health system is challenged by the need for additional beds, staff and equipment, and by the split responsibilities across Federal, State, and Community health jurisdictions and the Private sector.

Digital health technologies are emerging as a way to accommodate increased demand, and to bridge these gaps. They create the opportunity to increase the capacity to provide care in the community and in the home, and to link health information across parts of the health system.

The vision for the Digital Health Transformation is “To empower consumers and healthcare workers to deliver better patient outcomes through system-wide, digitally enabled technologies”. In other words, Tasmanians will experience a health system that is better integrated, more transparent and which allows clinicians and healthcare consumers to make better informed decisions around their health.

Developed through broad statewide consultation and in alignment with the Tasmanian Government’s Our Healthcare Future consultation report, the four focus areas of the strategy are to:

1. Improve community care
2. Engage patients in their care
3. Optimise clinical and operational workflows
4. Foster statewide collaboration



Our Vision

“To empower consumers and enable healthcare professionals to deliver better patient outcomes through system-wide, digitally enabled technologies.”

The initiatives outlined in the Digital Health Transformation are underpinned by 8 key guiding principles that will ensure continued focus on achieving the vision even as technology evolves and changes through the delivery of the strategy.

The strategy has been framed to capitalize on technology advances that occur over the coming years, as well as incorporating learnings from other jurisdictions and global health providers.

There are three horizons outlined in the Strategy that form a roadmap to deliver effective digital transformation over a 10 year period. Each horizon incrementally delivers change in each of the focus areas, to deliver economic and social benefits to the community, such as improved patient experience, improved clinician experience, better health outcomes for Tasmanians and sustainable costs for the healthcare system.

Finally, the Digital Health Transformation identifies the roles and responsibilities of key stakeholder groups who will be critical to the success of the strategy. Each stakeholder group has an important role in commissioning and implementing the initiatives outlined in the Horizons. Successful delivery of the strategy will improve the coordination of care for consumers, ensuring that they receiving the right care in the right place at the right time.

Digital Health Transformation on a Page

Our Vision

“To empower consumers and enable healthcare professionals to deliver better patient outcomes through system-wide, digitally enabled technologies.”

Focus areas



Improve Community Care



Engage patients in their care



Optimise clinical and operational workflows



Foster statewide Clinical Collaboration

Principles

Patient centred approach

Clinically led

Timely care delivery through service optimisation

Leverage proven solutions

Real-time responsive and adaptive environment

Close the digital divide

Harness innovation

Private, secure and high quality patient data

Horizons and Key Initiatives

Horizon 1

Horizon 1 makes the most of what we have now by increasing access to systems and expanding key capabilities.

In parallel, foundations will be built to prepare for the major change and investment phase of Horizon 2.

Strategy Foundations

Stand-up program

Set standards – data, interoperability

ICT infrastructure uplift

Workforce capability uplift

Horizon 2 planning and readiness

Enhancements

Increase access to clinical information

eReferral & Separation Summaries

First responders digital foundations

Expand telehealth & virtual care

Health information sharing H1

Clinical information viewer

Leverage national standards

Outcomes

- Increased visibility of clinical information across all settings; improved patient handover and outcomes
- Digital transformation readiness, including true interoperability foundations

Horizon 2

Horizon 2 builds a digital health record that spans acute, outpatients and community care, integrates speciality and diagnostic systems and supports primary care and consumer interactions. Horizon 2 also enhances patient flow, diagnostic and support services.

EMR & Integration

Patient administration uplift

Patient flow optimisation

Acute, outpatients, community

Electronic Medication Management

Specialty system & diagnostics integration

Integrated patient record

Diagnostic services

Support services

Decision support

Health information sharing H2

Patient engagement

Extended clinical information viewer

Outcomes

- Modern EMR capability
- Improved patient flow, scheduling and demand management
- Consumer portals
- Well integrated clinical systems
- Information sharing across care settings

Horizon 3

Horizon 3 draws on the rich data and digital capabilities established in Horizon 2 to optimise clinical decisions and patient outcomes, anticipate and manage service demands and support innovative, personalised approaches to care.

Outcomes measurement

Patient outcomes & experience

Care team reported outcomes

Care co-ordination and transitions of care

Advanced Data Analytics / Service Optimisation

Predictive analytics

Optimised demand management

Advanced decision support

Clinical Innovation

Personalised and precision medicine

AI and machine learning / Digital twins

Health information sharing H3

Integrated Care Platform

Outcomes

- Integrated care planning and management across all care settings
- Effective consumer participation in care
- Predictive and responsive services
- Advanced analytics and personalised/precision medicine



Why does Tasmania need a Digital Health Transformation?



Introduction

Around the world, the demand for hospital or acute care services continues to outstrip the availability of facilities and healthcare professionals.

Australians demand high quality healthcare services from all levels of government, particularly state and federal. It can rightly be considered part of the social contract governments have with their citizens.

People expect to be able to access the healthcare system whenever they need to and have trust that those providing services, have the capacity, capability, facilities and technology available to them to deliver high quality, personalised treatment.

Put simply, the right care in the right place at the right time.

Healthcare needs are evolving in Australia and globally, with an increased demand driven by an ageing population and increased chronic disease; factors particularly relevant to the Tasmanian context.

The COVID-19 pandemic, with its daily focus on hospital admissions and the occupancy of ICU beds, has brought into stark reality the ability for the health system to cope with peaks in demand.

Globally, the demand for hospital or acute care services continues to outstrip the availability of facilities and healthcare professionals.

The system has never been under greater challenge.

While the causal factors of these challenges typically centre on the volume of workers within the system and the number of available beds, the information technology utilised within system is also a major factor impacting the efficacy of the patient experience.

Technology's role in delivering the capabilities meant to allow front line staff to have greater focus and flexibility in providing patient care is not as effective as it could be and in fact is contributing to the challenges being encountered by the Tasmanian Health system.

Key reasons include;

1. Disjointed Systems and Ways of Working
2. Lack of visibility/integrated information to patients clinical history
3. Solution focussed on specific areas of care
4. Challenge of awareness and access to Health Services
5. Lack of decision making support

While the investments being made in critical health infrastructure and additional doctors, nurses and allied health professionals is vital, these must be augmented with well designed, well-integrated, and purposeful technology solutions that have the agility to meet the increasing whole of life healthcare needs of all Tasmanians.

Technology can be a key enabler for shifting the point of care to the community and the home reducing the demand on the hospital system and improve patient outcomes.

Like other sectors such as retail, digital technologies have disrupted the health industry, shifting the community's' and clinicians' expectations around the delivery of care.

Tasmania has been a leader in this area, providing care for COVID positive cases in the community through the adoption of digital technologies. The success of these early services should be embraced, as the COVID experience has demonstrated that clinicians and the community are ready and expect increased digitisation of healthcare services.

The Digital Health Transformation outlines a 10 year roadmap for transforming Tasmania's health system through digital technologies. The strategy has been informed by a wide-ranging consultation process across primary, community, sub-acute, and acute care settings and seeks to address the healthcare challenges identified in the Our Healthcare Future paper, published in November 2020.

By taking a system-wide approach to digital transformation, Tasmania has the unique opportunity to systematically address the technology siloes that have evolved over years, and in the process become a leader in Digital Health.

As a result, Tasmanians will experience a health system that is better integrated, more transparent and allows clinicians and healthcare consumers to make more informed and responsive decision making around their health.

Key Themes Identified by Participants

Throughout consultation, there were a number of common themes that were raised from clinicians, support and operational staff and consumers. These themes are outlined as the following;



Disjointed Systems and Ways of Working

Evident though 400+ systems as well as siloed and inconsistent ways of working across and outside the THS.



Lack of clinical information visibility and sharing

Disjointed systems and a lack of integration negatively impact visibility of clinical information and information sharing.



Solutions focused on specific areas of care

Investment into current systems has been based on areas of care or region, with limited focus on advancements in interoperability and functional capabilities.



Challenge of awareness and access to Health Services

Consumers face challenges accessing information on what health services are available, location of the services and issues with the wait-times.



Lack of decision making support

Lack of information to support clinical and operational decision making.



We desperately need an electronic referrals system. Forms go missing on a daily basis leaving patients without appointments and increasing work for clinicians and admin staff.



The current health system relies on clients being able to advocate for themselves – very difficult to navigate if they are unable to do so.



Electronic prescribing with embedded decision support tools will minimise the chance of medication errors, patient harm and extended length of stay.



Electronic diagnostic requesting will improve workflow, reduce identification error, reduce repeat request errors and ensure identification of requesting physicians to action results.



If Ambulance and GP practices had access to some of the Electronic Medical Record from the main hospital, this would make a massive difference to patient care.



Too much of what we do is governed by people operating in silos and not having the patient at the centre of what they do.



Seamless sharing of health information between primary and secondary care will improve health outcomes.



Many hours of clinician time could be diverted to direct patient care with the introduction of a statewide electronic medical record.

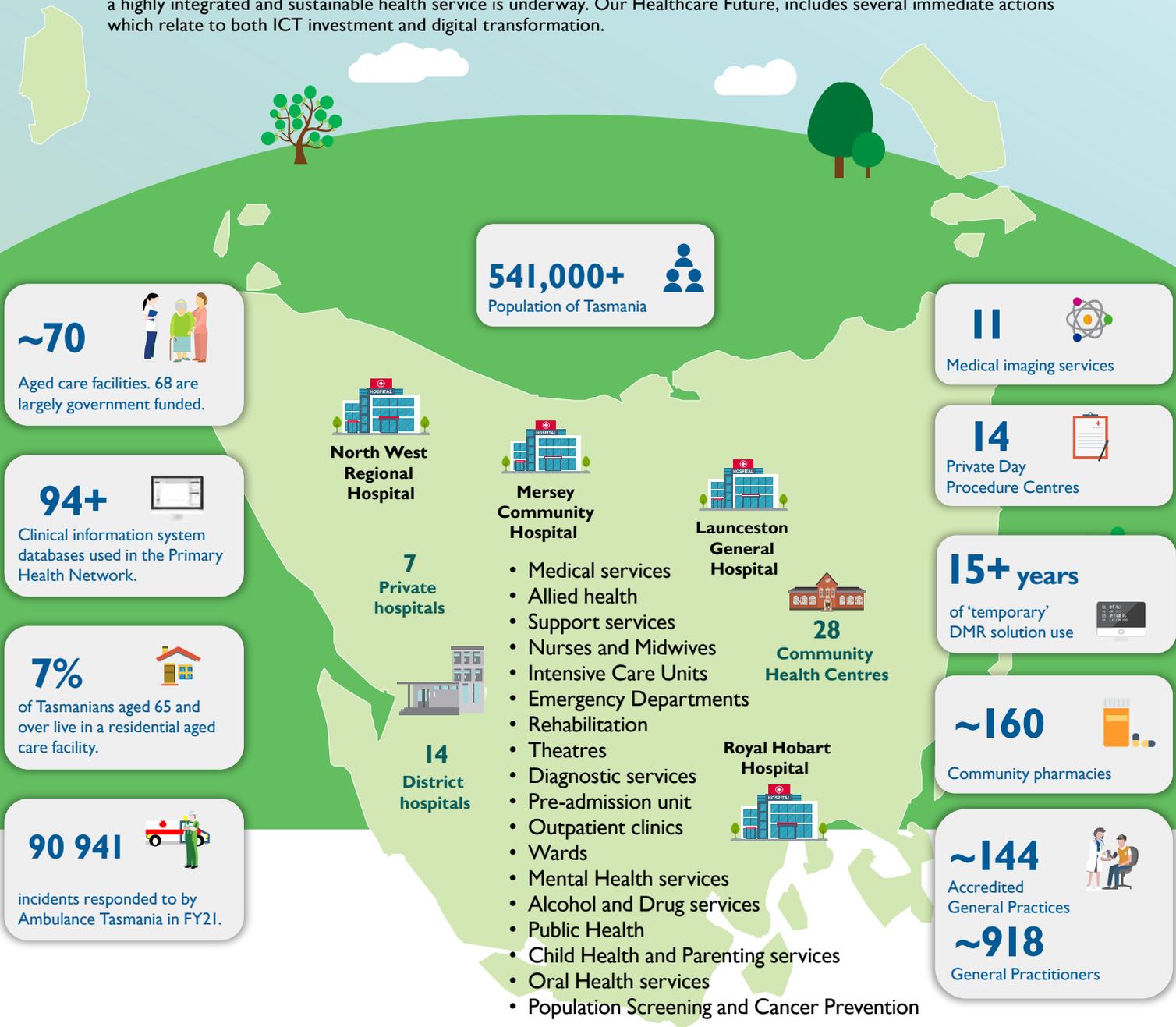
Our Health System Today

Like other jurisdictions within Australia, Tasmania's health system has grown organically over decades.

While the core fundamentals have been established, without a clear, coherent strategic roadmap being in place during that time, investments in people, process and technology have resulted in a health system that is siloed, disconnected and unable to respond to peak demands in a manageable, sustainable way.

Put simply, it is not representative of an agile, efficient, well-integrated system that is able to meet the healthcare needs and expectations of the Tasmanian community into the future.

In recognition of this, stage two of the Tasmanian Government's long-term reform agenda to consult, design and build a highly integrated and sustainable health service is underway. Our Healthcare Future, includes several immediate actions which relate to both ICT investment and digital transformation.



Nationally:



25.7 million
Total population

My Health Record

My Health Record is the national digital health record – 23M records in Australia, 490K in Tasmania.



All States and Territories in Australia have invested in digital technologies, representing a collective approximate investment of 10.1bn over 10 years (2015-2025).

Managing Increasing Demand for Healthcare Services in Tasmania

Throughout consultation, there were a number of common themes that were raised from clinicians, support and operational staff and consumers. These themes are outlined as the following:

Receiving Care at the right place



\$100m spent on care in acute settings, which could have been provided in more appropriate settings.

The Our Healthcare Future report highlights the high number of people that are receiving care in acute settings unnecessarily, resulting in poorer outcomes for patients and a high cost to the system. Conservative estimates suggest this equates to a potentially avoidable cost of between approximately \$33 million and \$47 million per annum. Proving care in less expensive sub-acute, non-acute or community-based settings can reduce unnecessary costs, and have direct economic benefits by keeping Tasmanian's more active and engaged in our community.

Population Demographic Shifts



Tasmania has historically faced challenges with educational attainment, digital literacy and health literacy.

Tasmania has the third smallest population by state or territory in Australia, with a large percentage of the population dispersed in rural or remote areas. Access to specialist healthcare services, emergency response services, and in some cases GP and community care services is limited in rural regions. Our population is also ageing faster than the rest of Australia, meaning the prevalence of chronic conditions will continue to grow. These factors increase the demand for healthcare and consequently, the cost of providing health services.

Changing and Growing Demand for Health Care



The rates of chronic disease are higher in Tasmania than the national rate.

As a result of an increased prevalence of chronic conditions, an ageing population and significant growth in emergency presentations, there is an increased demand for investment in health care. Chronic conditions can reduce a person's quality of life and participation in everyday activities, work and education. Complex patients with multi-morbid chronic conditions typically require a higher level of care, and are therefore at a higher risk of poor health outcomes. Additionally, their care is more likely to be at higher cost to the system.

Digital Technology can Improve Patient Outcomes



Digital Technologies can create efficiencies for clinicians, reduce costs and improve health outcomes.

Digital technologies have helped to transform and modernise healthcare internationally and in Australia. These technologies can improve the quality and safety of health care and make interactions between health professionals and consumers more effective and efficient. They also provide new options for how we deliver and scale our health system. Current systems are not fit-for-purpose, and the hybrid paper-electronic environment is creating inefficiencies for clinicians, referrers and administration staff, and poses risks to patient safety.

Alignment with National Digital Health Initiatives

Digital technologies can improve the quality and safety of healthcare, make interactions between health professionals and consumers more effective and efficient, and provide new options on how we deliver and scale our health system.

Alignment with the National Digital Health Strategy

All governments are dealing with constrained healthcare resources at a time when demand for quality healthcare is growing. Clinicians and healthcare professionals are seeking timely access to information to improve decision making, increase efficiencies and achieve better patient care.

The Australian Digital Health Agency (the Agency), with funding and support from the Commonwealth and all State and Territory Governments is delivering the current National Digital Health Transformation (to 2022) and developing the new national strategy for the following five years to 2027.

There are strong national digital health technologies and foundations in place, with real traction achieved over the last four to five years. The Tasmanian Digital Health Transformation leverages and builds on those foundations and is closely aligned to the National Digital Health Transformation.

Tasmania's position on National Digital Health

The Tasmanian Government remains committed to promoting the use of the My Health Record System and all other aspects of the national digital health infrastructure.

Uptake of My Health Record is proportionally high (497,000 records registered in Tasmanians), there is a statewide patient identifier that links to the national Healthcare Identifier Service, and there are active initiatives underway to make greater use of secure messaging, reducing reliance on paper and fax machines.

The table below illustrates how the initiatives outlined across the three horizons in this Digital Health Transformation build on the national digital health infrastructure.

		Aspects of the National Digital Health Infrastructure								
Horizons		My Health Record	Healthcare Identifiers	Secure Messaging	Clinical Terminology Service	National Health Services Directory	Electronic Prescriptions	Health API Gateway Services	Digital Pregnancy Health Record	Child Digital Health Record
✓	Horizon One	●	●	●						
✓	Horizon Two	●	●	●	●	●	●		●	●
✓	Horizon Three	●	●	●	●	●	●	●	●	●

Workforce Considerations

The success of any digital transformation initiative, particularly in health, is critically dependent on the active engagement and digital readiness of the workforce. The Tasmanian Health Workforce 2040 is a long-term strategy to shape a health workforce to meet the needs of Tasmanians now and into the future. The Digital Health Transformation has identified six key workforce considerations, using focus areas within the Health Workforce 2040 strategy as a guide. These workforce considerations will be addressed as part of the execution of the Digital Health Transformation over the next ten years.

Shaping the health workforce



In 2040, Tasmania's health workforce will be better aligned with the needs of the community

With the move to more care in the home and the community enabled through the initiatives identified in the Digital Health Transformation, more of the healthcare workforce will be operating outside traditional healthcare settings. Confidence in operating in a less structured environment and in using digital tools to access the clinical information needed to support care delivery, will be a key characteristic of participants in the future workforce.

Education and Training



The health workforce will be supported with training and education at all stages of their career and will engage in lifelong learning

Additional skills and competencies are required to ready the workforce for digital ways of working. The mindset change in recognising and treating data as an invaluable clinical asset will need to be embedded and maintained. Undergraduate, Postgraduate, VET and bridging curricula that reflect changes to professional practice, roles and working digitally will be a key enabler. Cyber awareness and supporting practices will be core content for education.

Fostering Innovation



In 2040, Tasmania will embrace new and innovative health workforce roles and models to respond to the changing needs of communities.

Looking to what's working well and achieving scale across the state will create a basis to embed a culture of continuous improvement and the adoption of innovative approaches. A workforce that is adaptable to models of care that rapidly evolve to meet changing community needs, and that is equipped to increasingly leverage digital technologies, will be essential to fostering innovation in the Tasmanian health ecosystem.

Workforce Considerations (continued)

Enhancing culture and wellbeing



High quality, safe, person centred service delivery is the goal. Promoting and supporting the health and wellbeing of the workforce will be a priority.

Digital technologies have helped to transform and modernise healthcare internationally and in Australia. They more readily enable person centred service delivery by enabling clinical information to be recorded and shared digitally. Ensuring that digital solutions positively impact the clinician experience as well as the patient experience will be vital for adoption and acceptance of digital ways of working.

Recruitment and effective working arrangements



The Tasmanian public health sector will be a workplace of choice.

A healthcare system that leverages digital technologies as a core component of its delivery model provides a point of difference over traditional models of healthcare delivery. The flexibility possible through digital channels has the potential to attract candidates that may not have previously considered roles in the sector. For the Department, more flexible working arrangements could be offered to its front line healthcare employees providing greater job satisfaction, motivation and productivity.

Planning



In 2040, Tasmania's public health sector will have accurate workforce data to inform evidence-based decision and policy making and to provide more effective and efficient procedures.

The richness of the data realised through fully integrated digital solutions leveraged throughout the healthcare journey will provide insights that inform quality, evidence based planning decisions. Descriptive, diagnostic, predictive and prescriptive analytics techniques will be possible resulting in a step change in being able to match healthcare services with the demographical attributes of the Tasmanian community. In turn this will enhance decision making and planning for the health workforce,

Focussing on these workforce considerations as we move forward to detailed planning and execution of the Digital Health Transformation will help to ensure the necessary growth in digital capability in our workforce. Guidance and learnings will also be taken from the *National Digital Health Workforce and Education Roadmap* (published by the Australian Digital Health Agency in 2020) to incorporate successful approaches being used in other jurisdictions and to align the capabilities of the Tasmanian healthcare workforce with the national direction.



The Digital Health Transformation

Vision and Focus Areas

Our Vision



“To empower consumers and enable healthcare professionals to deliver better patient outcomes through system-wide, digitally enabled technologies.”

The Digital Health Transformation will deliver across four focus areas highlighted, which align with the priorities identified in ‘Our Healthcare Future’.



Transform Community Care

Care is delivered closer to home. Digital solutions will strengthen the link between acute and community settings to enable consumers to receive appropriate care in their home for longer, and avoid people going to hospital when they do not need to. Improving patient access and flow, and supporting new models of care will benefit consumers and lead to better patient outcomes.



Engage patients in their care

Empower patients to play a greater role in managing their own care, by providing them with greater access to health services, education and health information via digital technologies. Providing patients with access to digital technologies will improve their experience of the health system, build trust and achieve better health outcomes.



Optimise clinical and operational workflows

Clinical and operational workflows will be optimised through integrated digital solutions, reducing duplication of effort and enabling workforce efficiencies that will contribute towards increasing health system capacity. Data will be a key clinical asset from which rich analysis can be performed and transformed into actionable insights.



Foster statewide clinical collaboration

Foster multi-sector, inter-professional collaboration that spans regions, settings and disciplines to provide the longitudinal patient centred view. This includes real-time, secure communication and the exchange of information between primary, community, acute, sub-acute and aged care settings.

Vision and Goals

Our Vision



“To empower consumers and enable healthcare professionals to deliver better patient outcomes through system-wide, digitally enabled technologies.

The vision and goals of the Digital Health Transformation are aligned to the quadruple aim of healthcare transformation. The outcomes of the strategy are described below in terms of what it means to consumers and clinicians, and how these outcomes can be measured.



Improved Patient Experience

- I'm confident that people know about me and my information is secure
- I can see the services I can access, understand how to access them and manage my upcoming appointments. Accessing services virtually when appropriate is an option for me
- I spend less time waiting

- More Patient Reported Measures routinely captured
- Improvement in Patient-Reported Measures
- Waitlist times reduced
- Improved patient demographic data quality



Improved Clinician Experience

- I spend less time looking for information, which means I can spend more time on patient care
- It's easier to access information that helps me make the best decision, leading to better patient outcomes and supporting high quality performance
- Care coordination is no longer a separate process; it is enabled through my day to day documentation

- Improved staff / clinician satisfaction measure by survey
- Improvement in employee retention
- Reduced time on administrative tasks



Better Health Outcomes

- Managing population health proactively ensures that services are directed, early, to those that will benefit the most
- Keeping people out of hospital when they don't need to be there, facilitating the allocation of resources to those who need it the most
- Clinical decision support tools effectively contribute to the to avoidance of harm, facilitating a longitudinal view of the patient record and earlier detection of chronic conditions

- Fewer unplanned hospital readmissions
- Fewer adverse drug events
- Faster identification of deteriorating patients
- Improved risk stratification for early interventions



Sustainable Elasticity in Health System Capacity

- Waste in the system is reduced
- There is a clear line of sight to the cost of delivering services
- Ability to correctly and efficiently access appropriate funding
- Reduce carbon emissions by minimising unnecessary travel through virtual care, reducing paper and removing duplicate testing to contribute toward the state target of net zero carbon emissions for 2030

- Shorter length of inpatient stay
- Fewer “did not attend”
- More services delivered closer to home
- “Targeting zero fax machines”

Digital Health Transformation Principles

The following principles will underpin all initiatives outlined in the Digital Health Transformation. They form new governance pathways that will ensure that even as technologies evolve, the Strategy can adapt and maintain focus on the vision and outcomes defined.



Patient centred approach

Enable a patient centred approach through clinical service collaboration across health services where the patient's goals of care are consistently the area of focus, regardless of where care is provided.



Optimise ways of working

Optimise ways of working for the clinical and operational workforce through digital technologies that streamline processes, remove paper forms and create better resource management across Tasmania's Health System.



Real-time responsive and adaptive environment

Enable adaptive and agile responses through the implementation of flexible digital solutions.



Harness innovation

Develop an internal innovation culture and invest in organisational development and research that strives for continuous improvement across digital solutions to identify and scale local innovation to sustain value within the system. An eye to industry innovation will ensure Tasmania appropriately adopts and benefits from external innovation, including augmented intelligence, augmented reality, robotics, precision medicine, genomics and other technologies.



Clinically led

Achieve strong engagement and collaboration with clinicians in all settings across the state, supporting workforce preparedness towards digital transformation, and facilitating initiatives that are designed and delivered to support clinical workflows and outcomes.



Leverage proven solutions

Reduce unwarranted variation by leveraging approaches and solutions that have been proven elsewhere. Avoid over-customising solutions to drive consistency and standardisation wherever appropriate.



Close the digital divide

Incorporate accessibility and ease of use principles at the core. Human connection and the need for face to face services will remain to ensure inclusivity in the Tasmanian community.

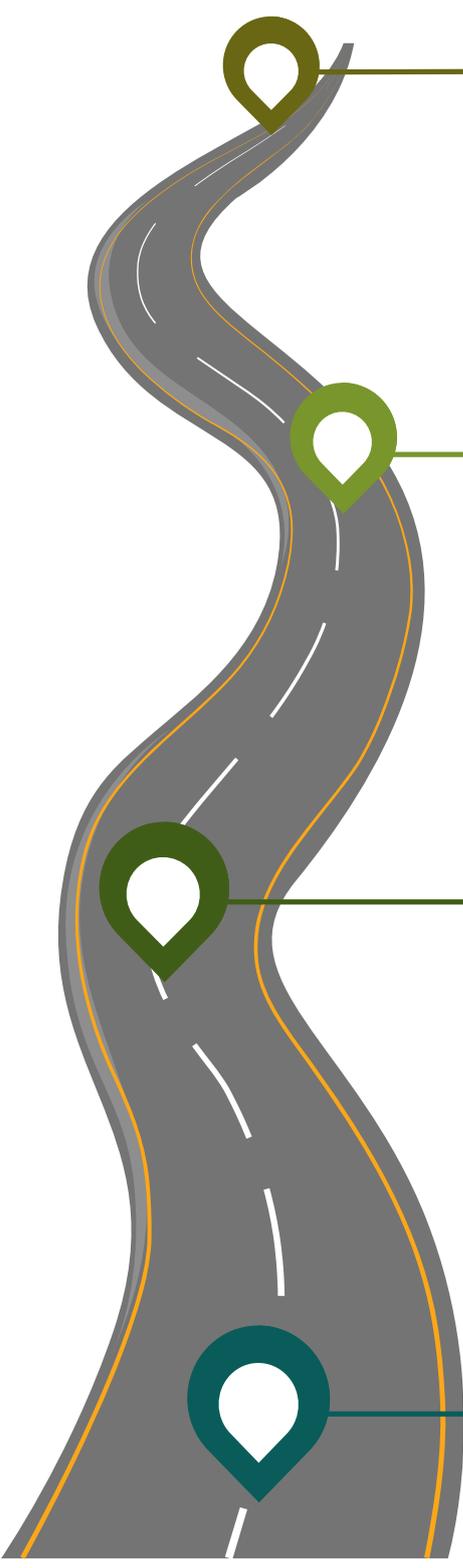


Private, secure and high quality patient data

Ensure all data is secure and all digital platforms comply with State and Federal cyber security and privacy legislative provisions to safeguard protected health information (PHI) and sensitive data. Protect data against threats and build trust with consumers and clinicians through ensuring only appropriate access to information. Improve data quality across the health system.

Digital Health Transformation Roadmap

The Digital Health Transformation is a multi-year strategy that is digitally transforming the state's health system into a modern, contemporary capability, delivering equitable access to healthcare for Tasmanians. Over a ten year period, initiatives have been structured into three horizons which build from today's landscape to the goal state.



Horizon 1

- **Improved visibility to clinical information across the state's healthcare settings will promote effective collaboration** regardless of where care is delivered, including primary, community and aged care settings, AT, Mental Health, Child Health, Oral Health etc.
- **Capitalise on early clinical information systems investment and opportunities** to aggregate data and improve patient outcomes
- Patients are proactively engaged in their care through **extension of virtual health solutions** and mHealth
- **Systems for first responders** will be improved and extended
- **Data remediation and quality improvement and adoption of standards** will lay the groundwork for efficient workflows and true interoperability with digital solutions

Horizon 2

- **Modern EMR and EMM capability** leveraging lessons learnt from other jurisdictions
- **Improved patient flow, scheduling and demand management** will reduce patients' time traveling to access services and **promote advances in virtual care** to support more remote provision of care
- **Consumer portals** providing education and engagement material, and enable patient self-scheduling appointment ability to increase engagement
- **Well-integrated clinical systems across the acute and district hospitals** improving the capacity of our workforce and facilitating scalability of current services
- **More information** from the acute sector will be available in the community to **support care team collaboration** and **delivery of virtual and telehealth services**
- **Clinical information will be integrated** across specialty services, including Mental Health, Community, Child Health, Oral Health and Aged Care

Horizon 3

- Achieve a true **integrated care management platform across the state** that supports care being delivered closer to home by any involved care providers, using face to face or virtual modes
- **Patients and consumers have the tools they need** to help them make decisions and manage their care with increased transparency around access to services and wait-times
- Streamlined service delivery processes from waitlist to appointment, integrating virtual care capabilities to support **a multi-channel delivery model**
- **Clinical data across the state can be viewed and updated efficiently in the course of clinical workflows**
- Advanced decision support and Augmented Intelligence across clinical and operational data supports better decisions faster. **Personalised and precision medicine is enabled**
- **Transitions of care and care planning is seamlessly supported** regardless of the location of the patient's care team; acute hospitals, community or private hospitals, primary care, aged care or virtual settings

Goal State

- **Improved Patient Experience**
- **Improved Clinician Experience**
- **Better Health Outcomes**
- **Sustainable Elasticity in Health System Capacity**

Horizon One (2022-2024)

Horizon one focuses on ensuring the Tasmanian Health system has the right infrastructure, processes and executive and clinical leadership to support digital enablement.

Initiatives within horizon one will set the base for further horizons, by addressing critical gaps within the current health ecosystem, addressing tactical wins and establishing the frameworks, governance and adoption for digital improvement projects.

Key Outcomes from HI	Alignment to Focus Areas				Alignment to Goal State			
	Improve Community Care	Engage patients in their care	Optimise Clinical and Operational Workflows	Foster statewide Clinical Collaboration	Improve Patient Experience	Improved Clinician Experience	Sustainable Elasticity in Health System Capacity	Better Health Outcomes
<ul style="list-style-type: none"> Improved visibility to clinical information across the state's healthcare settings will promote effective collaboration regardless of where care is delivered, including primary, community and aged care settings, AT, Mental Health, Child Health, Oral Health etc. 	●		●	●	●	●	●	●
<ul style="list-style-type: none"> Capitalise on early clinical information systems investment and opportunities to aggregate data and improve patient outcomes 			●		●		●	●
<ul style="list-style-type: none"> Patients are proactively engaged in their care through the extension of virtual health solutions and mHealth 	●	●			●		●	
<ul style="list-style-type: none"> Systems for first responders will be improved and extended 	●	●	●			●		●
<ul style="list-style-type: none"> Data remediation, quality improvement and adoption of standards, identifiers and terminologies will lay the groundwork for efficient workflows and true interoperability with digital solutions 	●		●		●	●	●	●

Horizon One – Initiative Overview

Strategy Foundations – ICT

To support digital transformation, solid ICT foundations need to be established. These build on the initiatives outlined in the Health ICT Strategy, which was launched in 2021.

Initiatives

Clinical grade ICT Infrastructure and support¹

- Clinical Grade, resilient network upgrades
- Data centre server and backup infrastructure upgrades
- Enhanced Cyber Security Capabilities
- Single-sign on
- 24/7/365 availability and support

Digital Capability Uplift and Securing the Right People

- Effective governance groups
- Communications and change management plan and rollout

Horizon 2 Procurement

- Requirements definition for H2 procurement

Incremental Enhancements

These initiatives build on existing activities in Digital Health and optimise use clinical information systems already deployed or where deployment is already underway in Tasmania.

Initiatives

First Responders Digital Foundations

- New clinical information system (ePCR) and first responder app

CIS Optimisation

- Standardise existing clinical workflows onto statewide systems as a preparation for new EMR – clinical handover, clinical pathways, clinical alerts, care plans
- Hospital in the home (HiTH) virtual care model across home, aged care and rehabilitation facilities
- Digital outpatient management and virtual care – delivering outpatient appts outside the hospital setting
- Expansion of electronic referrals, separation summary capabilities and external correspondence
- TrakED/DMR access extensions
- Tactical integration of existing prescribing, dispensing and supply systems
- External Pathology results copied to DMR

Leverage Capital Infrastructure Investments

- Take opportunities to digitise new build or upgraded built environments
- Meal management rollout

Horizon 1

Strategy Foundations – Data Quality, Standards and Workforce

Data quality improvement and standardisation of terminology, workflows and protocols, and upskilling of the workforce will lay the groundwork for data migration and adoption of new clinical and administrative systems in Horizon 2.

Initiatives

Data quality, standards and capture

- Data quality uplift including patient demographics and identity
- Alignment of clinic / service details
- Standardisation of allergies/ alerts, order sets, protocols
- Diagnostic Test Request form standardisation

EMR Planning

- Current state footprint of existing clinical systems and biomed fleet
- Data migration planning

Workforce readiness

- Cultural change and uplift the digital literacy of staff – clinical, technical and administrative

Health Information Sharing

Over the three horizons, work will be undertaken to progressively improve the ability of clinicians to view and update relevant clinical information across care settings in Tasmania.

Initiatives

Leverage Broader Digital Health Initiatives

- National Digital Health Infrastructure, including: My Health Record, HI Service, Secure Messaging, HealthPathways and National Health Service Directory

Clinical Viewer

- Aggregate and provide view-only information from existing clinical systems
- Provide better access to clinical information across child health, community and aged care, mental health etc.
- Limited scope care plan sharing e.g. comprehensive care plan digitisation
- Tactical clinical dashboards to provide greater diagnostic opportunities

¹ A number of these initiatives are underway as part of the ICT Strategy.

Horizon Two (2025-2027)

Horizon two focuses on **implementing the right systems, to create strong systems of record within Tasmania.**

Horizon two will also optimise the consumer and clinician experience, by improving access to health services and fostering statewide clinical collaboration. This will provide improved health services and enable more care to be delivered closer to the consumer's home.

Key Outcomes from H2	Alignment to Focus Areas				Alignment to Goal State			
	Improve Community Care	Engage patients in their care	Optimise Clinical and Operational Workflows	Foster statewide Clinical Collaboration	Improve Patient Experience	Improved Clinician Experience	Sustainable Elasticity in Health System Capacity	Better Health Outcomes
✓ Modern EMR capability leveraging lessons learnt from other jurisdictions		●	●	●	●	●	●	●
✓ Advanced EMM capability to support patients to receive the right medicines at the right time, using contemporary decision support			●	●	●	●	●	●
✓ Improved patient flow, scheduling and demand management, reducing patients' time traveling to access services and promote advances in virtual care	●	●			●		●	●
✓ Consumer portals providing education and engagement material, and enable patient self-scheduling appointment ability to increase engagement	●	●			●		●	●
✓ Well-integrated clinical systems across the acute and district hospitals improving the capacity of our workforce and facilitating scalability of current services		●	●	●	●	●	●	●
✓ More information from the acute sector will be available in the community to support care team collaboration and delivery of virtual and telehealth services	●	●	●	●	●	●	●	●
✓ Clinical information will be integrated across specialty services, including AT, Mental Health, Community, Child Health, Oral Health and Aged Care	●	●	●	●	●	●	●	●

Horizon Two – Initiative Overview

Electronic Medical Record and Integration

Establish core systems of record across clinical, administrative and operational domains. Implement standards and module/API based approach or comprehensive EMR.

Initiatives

Administration and Operational record

- Next generation patient administration and flow
- Contemporary billing solution
- Statewide meals management (including dietary restrictions/requirements/preferences), general services, etc.

Core clinical record – THS EMR and EMM

- Comprehensive, integrated, standards-based electronic medical record
- Across Emergency, Outpatients, Inpatients, Community, Mental Health, Child Health, Theatres, Anaesthetics and Perioperative, Intensive and high dependency care
- Orders and results
- Advanced Electronic Medications Management (EMM) and electronic prescriptions, integrating medication management across acute and community settings
- Clinical notes and observations

Care collaboration

- Increase adoption and uptake of multi-disciplinary team case conferencing
- Integrated telehealth solution across the state to provide emergency assessment and clinical support to regional and rural sites

Diagnostic Services

- New Pathology system
- Integrate Radiology systems, including consideration of specialty imaging

Specialist Systems and Pharmacy System Integration Asset management

Patient Engagement

Providing a ‘digital front door’ for patient engagement and participation in care.

Initiatives

Access to Services

- Booking and admissions portal and personal information management
- Wayfinding solution(s) for Launceston General Hospital and Royal Hobart Hospital
- Appointment management and notifications
- Virtual Care

Patient Participation and Outcomes

- Patient and carer access to clinical results and reports
- Patient and carer access to shared care plan and online goals of care participation
- Personal / virtual health monitoring integration
- mHealth initiatives
- Virtual care solutions that can be used to connect admitted patients with their families and carers

Horizon 2

Health Information Sharing

Over the three horizons, work will be undertaken to progressively improve the ability of clinicians to view and update relevant clinical information across care settings in Tasmania.

Initiatives

Extended clinical information viewer

- Shared care plan expansion
- Integration of additional clinical information sources

Decision Support

Improved clinical and operational systems and comprehensive system integration lays a foundation for enhanced decision support.

Initiatives

Clinical decision support

- Clinical decision support – allergies, alerts, etc.
- Medication decision support – allergies, drug interactions, dosing
- Early predictive decision support – e.g. deteriorating patient

Operational management and decision support – Patient Flow optimisation

- Dashboards / visualisation and patient flow decision support

Horizon Three (2028-2032)

Horizon three drives additional value from the investments made in horizon two through targeted continuous improvement, and is where innovation opportunities come to life.

This three year phase is centered around continuous improvement through data analytics and augmented intelligence. It sustains and enhances the shared care platform and improves upon clinical and operational decision support, while leveraging IoT technologies to scale the health system capabilities further.

Key Outcomes from H3	Alignment to Focus Areas				Alignment to Goal State			
	Improve Community Care	Engage patients in their care	Optimise Clinical and Operational Workflows	Foster statewide Clinical Collaboration	Improve Patient Experience	Improved Clinician Experience	Sustainable Elasticity in Health System Capacity	Better Health Outcomes
✓ Achieve a true integrated care management platform across the state that supports care being delivered closer to home by any involved care providers, using face to face or virtual modes	●	●	●	●	●	●	●	●
✓ Patients and consumers have the tools they need to help them make decisions and manage their care with increased transparency around access to services and wait-times	●	●			●		●	●
✓ Streamlined service delivery processes from waitlist to appointment, integrating virtual care capabilities to support a multi-channel delivery model	●	●	●	●	●	●	●	●
✓ Clinical data across the state can be viewed and updated efficiently in the course of clinical workflows.			●	●		●	●	●
✓ Advanced decision support and Augmented Intelligence across clinical and operational data supports better decisions faster. Personalised and precision medicine is enabled.	●	●	●		●	●	●	●
✓ Transitions of care and care planning is seamlessly supported regardless of the location of the patient's care team; acute hospitals, community or private hospitals, or primary care settings aged care or virtual settings	●	●	●	●	●	●	●	●

Horizon Three – Initiative Overview

Integrated Care Platform

Creation of a standards-based, FHIR/API-driven integrated care platform that can be accessed and updated through systems of record across all settings to optimise clinical workflows and enable more person-centred care.

Initiatives

Integrated Care Platform

- Relevant history and results, allergies and results
- Current and recent medications
- Care plans and goals of care
- Upcoming appointments

Outcomes measures

- Patient reported outcome and experience measures
- Care team reported outcome measures

Care co-ordination and transitions of care

- Immediate visibility to latest medications and care plans on transitions of care

Advanced Data Analytics, Operational and Clinical Decision Support

Drawing together and analysing data from a range of sources to provide deep insights to clinicians and administrators.

Initiatives

Advanced Clinical Decision Support

- Personalised medicine

Quality improvement

- Identification of unwarranted variation
- Performance benchmarking
- Outlier identification and management

Operational support

- Asset and facilities management
- Billing
- Planning

Horizon 3

Optimised Demand Management

Statewide optimisation of scheduling – including resourcing across all settings including in-hospital, out of hospital and virtual using predictive modelling and AI.

Initiatives

Whole of state scheduling view

- Portal which enables visibility of a consumer's appointment schedule across all settings
- Advanced scheduling that can cater for family or carer relationships, care preferences
- Actionable, whole of state view of demand and patient flow

Self-scheduling

- Portal which enables consumer / clinician self-service

Workflow optimisation

- Predictive modelling based on demand

Clinical Innovation

Harness innovative ideas to better patient care and become leading practice exemplars.

Initiatives

Precision medicine

- Precision medicine support
- 'Omics – e.g. Pharmacogenomics, clinical proteomics
- Biobanking and genomics

Augmented intelligence

- Broader use of augmented reality training for staff
- Assisted robotic surgery

Determinants of Health

- Bring social determinants of health into clinical decision support and preventative care

Digital Twins in Healthcare



**What does this mean
for Tasmania?**

The Future Tasmanian Health Landscape

The Digital Health Transformation will transform the healthcare experience for the Tasmanian community.

Tasmanians will benefit from greater access to engaging information and tools to help them make more informed decisions about their health. Innovations in technology will enable care to be delivered in the comfort of home, or within the convenience of local community facilities, rather than our major hospitals being the focal point for care delivery.

The patient experience will be transformed through the simplification and modernisation of the systems used by our healthcare workers. Like never before, the timeliness, quality and richness of information available to all involved in a patient's care will lead to improved treatment outcomes.

The ultimate outcome of the Digital Health Transformation will be a more connected healthcare system that delivers a step change in the quality and flexibility of care provided to the Tasmanian community.



Healthcare Consumers



Current Experience

- I would rather receive treatment at home, but my options are limited and I therefore rely on attending the hospital for care.
- I have no visibility to where I am on the waitlist for community and outpatient appointments, and when I do finally get an appointment scheduled, the information is mailed, which is easily lost or misplaced.
- Living in a rural area of Tasmania, it is difficult and emotionally taxing to travel long distances for care.
- I find it difficult finding the right service for my condition.
- I get frustrated by constantly having to repeat my health history to each new clinician I see.
- I also get frustrated that information about my surgery in private hospital isn't available when I'm in the public system.
- I am not confident that everyone understands my allergies, meaning that I need to be hyper-vigilant when in hospital.



Required Transformation

- Improved virtual care options with TGA approved devices will better monitor my condition and build confidence that my care is safely managed in my home setting,
- Enable visibility of waitlists, meaning consumers may select care elsewhere if they had been provided information of timeframe across the care settings.
- Establish a consumer-centred source of personal health information to enable consumers visibility over their goals of care and care plans anywhere.
- Best practice care can be received locally in Tasmania through support of elite medical practitioners elsewhere in Tasmania, interstate or overseas. Clinicians can offer their advice and approach after digitally reviewing all the relevant patient's clinical notes, tests and results.
- Integration of clinical information across all health care providers in the state – both public and private.
- Improve integration of My Health Record with current systems, meaning patient information is consistently uploaded.



Digital Futures

- I have greater access to health services through virtual care and home monitoring, this reduces travel time and allows me to spend more time with my family. This improves the quality of my life, while giving me comfort that my model of care is contributing towards lower carbon emissions.
- I know that all my healthcare providers have secure access to the information about me that they need to make the best treatment decisions in line with my goals of care.
- I can securely access my health information through a Consumer Portal, enabling me to make more informed health decisions, while keeping track of my progress and goals of care.
- I no longer have to cancel work and family commitments last minute to cater to the rigid scheduling of outpatient and community appointments, I can book appointments online at a time that suits my schedule and check my status on the waitlist.
- It's easier for me to find appropriate health services closer to home, and I can view health information from my Consumer Portal to find the right service.



Clinical Staff



Current Experience

- I am operating in a hybrid paper/electronic environment, which leads to a duplication of effort, as I don't have a single source of truth for patient information.
- Due to the number of systems that require duplication of information, I use manual workarounds to complete my administrative activities, increasing the risk of potential errors.
- I too often have to rely on the patient to provide their medical history, as I don't always have visibility of the patient's treatment across care settings. If I can't find the test result I need, I may reorder a recent test, which is inconvenient for the patient and costly to the system.
- I often have to work overtime, due to staff shortages.
- Communication with other clinicians across care settings uses a variety of outdated methods (phone, fax and letters), due to not having a secure and standardised communication platform. This will allow efficient management to ensure goals are aligned amongst clinicians.
- I can't see patient's allergies and alerts in one place, some systems show an allergy whilst others list nothing.



Required Transformation

- Visibility of relevant clinical information across care settings to inform diagnoses and treatment plans, and to track progress of the patient and changes in plan or goals of care.
- Better support for community-based care and a "joined-up" health system through the implementation of an integrated care platform, which is accessible by all involved clinicians across all healthcare providers.
- Secure communication across care settings (including private hospitals and day surgery facilities) using a reliable, scalable, available and affordable digital communications infrastructure.
- Single-sign on solution for the clinician within the healthcare settings.
- Optimal workstation solutions that are suited to the hospital environment, that encourage care at the bedside, and that consider health and safety for clinicians.
- Systems are integrated, removing the current issues with information not being available when I need it to securely access patient data.
- Ability to subscribe to alerts on specific patients to ensure I am kept up to date on important changes to their treatment plan.
- Implement an integrated approach to managing core patient information such as allergies and alerts.



Digital Futures

- I can view and edit a shared care record through the integrated care platform with the full patient history with ease as part of my clinical workflow. This record is accessible by all clinicians treating my patient, regardless of care setting, strengthening the link between acute and community care, while reducing the reliance on the patient to provide critical clinical information.
- I can communicate with my colleagues across care settings using a real-time, secure digital messaging platform.
- I can easily update my clinical notes, which are automatically reflected in the integrated care platform. I can easily access tests ordered and results from a single platform, shortening the time to diagnosis and saving the system money.
- I am able to attend training virtually, using augmented reality and other technologies to gain skills that I would otherwise have to travel to acquire, or that are difficult to find opportunities to learn in the real world.
- I have an opportunity to participate in clinical practice benchmarking and care analysis, enabling increased opportunities for supportive practice development and reflection.



Operational and Support Services Staff



Current Experience

- There is poor supply chain visibility due to the siloed/fragmented ICT landscape.
- Assets are regularly misplaced, we have to use a PA announcement in hospital settings to locate critical equipment.
- Poor supply chain visibility (e.g. asset management) due to siloed / fragmented systems.
- Limited visibility to track performance and utilisation of resources due to a lack of reliable data.
- I have to rely on whoever is admitting the patient to ensure they have listed allergies for food services, as there is no clear alert that is consistent across all systems.
- Patients can get frustrated and sometimes aggressive when they can't find where they are going in the hospitals, and they end up in wards which they are not meant to be allowed in.
- There is no priority system with cleaning, meaning beds are taking longer to be available.



Required Transformation

- Improved asset management, procurement timelines and proposing a pathway to a single digital stock management solution.
- Remove manual collation of reports, implement sophisticated data capture and management systems with advanced analytics capability.
- Implementation of a meal management system across hospitals that are still using paper-based food ordering and present an allergy risk.
- The billing process is streamlined, and clinical activities are captured and billed correctly.
- Implementation of a Patient Administration. System where patient demographics are updated once and will be reflect across all health systems.



Digital Futures

- I am able to confidently manage assets, have visibility over supply chain, ensure timely maintenance on assets, reduce wastage and forecast demand more effectively.
- I am able to efficiently generate quality reports with required data to present to executives.
- I can login to the system and have a customized view relevant to my role to access real-time reports that support operational and executive level decision making.
- Using the meal management solution has created huge efficiencies for my workforce and being able to trust the alerts in the system are accurate for allergies and intolerances has removed a lot of stress.
- The patient billing system accurately reflects the billing of clinical tasks, and streamlines the billing process for consumers.
- I am able to easily and efficiently admit patients using the Patient Administration System.



What does this mean for Tasmanian clinicians?

The following example demonstrates the digital future for clinicians and enables greater communication between care settings.



“When a patient presents acutely unwell to ED, we can easily access information about their last hospital presentation (wherever in Tasmania that was), and see information from their regular GP. This allows the team to make better decisions sooner, and reduces the reliance on the patient to repeat their medical history.”

Michael

Emergency Department Medical Officer



“Ready access to the surgeon’s notes, and progress notes and handover from rehab have really helped me accelerate my patients’ recoveries. Not having to chase information or rely on the patient to tell me what their goals of care are saves so much time that I can spend on actual care.”

Sally

Community Physiotherapist



“Being able to get a holistic view of my complex patients across all aspects of their care, including allied health and encounters with the public hospital system, informs my treatment decisions. I don’t even need to go into another system to look for this; it is all visible from within my main practice management system.”

Dina

General Practitioner



“Our residents are now assured of getting the right medications in a timely manner after hospital discharges and GP reviews as I have direct line of sight to changes to meds made during their hospital stay.”

Alex

Aged Care Nurse



What does this mean for Tasmanian consumers?

The following example demonstrates the digital future for consumers and how care in the community can be improved.



“I often struggle to understand what the doctors are saying during my appointments. Having a Consumer Portal where I can view a summary of what was discussed, review my goals of care and health information with my family gives me confidence to manage my chronic disease more effectively.”

Jim

Middle-aged individual with chronic disease



“While caring for my mother can still be stressful, I am so relieved not to be the ‘keeper of the knowledge’. Mum’s doctors and other care givers are all on the same page and accessing the same information – that’s no longer up to me.”



Jane

Full-time carer for elderly mother



“I can do virtual appointments with my obstetrician from NWRH whilst looking after my kids. I schedule appointments using my digital pregnancy handbook and find information about travel options on there for when I need to go in for a physical examination. I feel more prepared about the upcoming travel and can organise a babysitter for the children in advance.”

Lily

General Practitioner





Roles and Responsibilities

Roles and Responsibilities Overview

The healthcare landscape across Australia is made up of local capabilities, systems and services with multiple governing bodies overseeing service delivery. Successfully executing this system-wide Digital Health Transformation can therefore not be done in isolation. Clearly defining roles and responsibilities across the system is central to successful delivery of the Strategy and underpinning initiatives. Good governance requires accountability, transparency and responsiveness to change. This must be enabled by a strong governance model to support successful execution of the Strategy.

Roles are aligned to the Australian Digital Health Agency's Framework for Action:

Lead

Dedicate resources and take responsibility for activities by facilitating collaboration and co-design between all relevant stakeholders. Develop effective strategies that result in the practical delivery of improved outcomes for consumers and clinicians. Monitor, evaluate and continuously improve solutions to ensure consumer and clinician expectations are being met.

Advocate

Contribute to the development and implementation of activities by ensuring that the interests of clinicians and consumers are being met. Encourage adoption of solutions that deliver improved outcomes for clinicians and consumers

Partner

Dedicate resources and play a key role in developing and implementing strategies in partnership with other organisations which results in the practical delivery of outcomes for consumers and clinicians.

Support

Contribute to the co-design of planning and delivery of activities and understand and execute their role in implementation to ensure practical delivery of outcomes for consumers and clinicians

Engage

Become involved, where possible, in the planning, design and delivery of activities. Participate in using digital solutions that are designed to improve health outcomes

Roles assigned to key Stakeholder Groups for execution of the strategy

Tasmanian Department of Health

Lead

The Tasmanian Department of Health is responsible for public hospitals, the ambulance service and many community health services. It works in collaboration with other governing bodies across a range of areas to provide oversight, policy direction and enable optimal healthcare delivery and innovation opportunities by providing primary components of the Digital Health Transformation as well as ICT initiatives and investments. As the Digital Health Transformation is implemented, DoH's lead will be vital in fostering a coordinated effort among stakeholders across the state and other jurisdictions.

Clinical Advisory Groups

Partner

The Clinical Advisory Groups (CAGs) provide expert, discipline-specific clinical advice and undertake clinical engagement across the health system. These groups will have a significant role being clinical champions who communicate the benefits of the Digital Health Transformation and promote support for implementation within their own services and across the state. The CAGs will also provide feedback throughout initiation and implementation of the Digital Health Transformation through formal channels to the THS executives and the Department of Health.

Primary Health Tasmania

Partner

Primary Health Tasmania (PHT) engages clinicians to assess, design, implement and evaluate services to improve the health and wellbeing of Tasmanians and support the coordination of care, ensuring people are receiving the right care in the right place at the right time. PHT also supports community-based healthcare providers to deliver high quality care for Tasmania, particularly those at risk of poor health outcomes.

Throughout the Digital Health Transformation implementation, PHT will promote the initiatives rolled out across the community health care providers to reduce the fragmented care experience received by consumers, deliver care closer to the home and facilitate collaboration across the health systems.

Roles and Responsibilities Overview (continued)

Clinicians, consumers, families and volunteers

Engage

Volunteers, clinicians, consumers and their families are the primary focus of improvement impacts through implementation of the Digital Health Transformation initiatives. Clinicians will be engaged as subject matter experts and change champions for adoption of the initiatives in the Digital Health Transformation. They will also relay the feedback provided by their colleagues back to their peak bodies and/or the project team to drive continual improvement. Similarly, volunteers, consumers and families will engage with HCT or their services to provide feedback on their experiences.

Health Consumers Tasmania

Engage

HCT is the peak health consumer organisation in Tasmania that provides an informed and independent consumer voice and engaging with health service providers to improve the services and health outcomes of all Tasmanians. Throughout the Digital Health Transformation implementation, the HCT will facilitate feedback on the changes employed across the health services and provide training to health consumers on how to engage with the health system and utilise the new technology to improve their experience across the healthcare settings.

Industry Participants/Suppliers

Partner

Delivery of the Digital Health Transformation will involve partnership with a number of industry vendors and suppliers based on the chosen solutions for different initiatives. The relationship with each vendor/supplier will be managed by Department of Health with a view to drive collaboration and innovation across the digital landscape. Such suppliers could include digital technology vendors, biotech and consumables.

Australian Digital Health Agency (the Agency)

Partner

The Agency is a Commonwealth entity that promotes accelerated implementation and adoption of innovative digital technologies and services to promote collaborative care, particularly following COVID-19, where digital health has increased relevant and importance in care delivery from healthcare providers to the community. The Digital Health Transformation encompasses these goals and the support of the Agency with key initiatives will uplift Tasmania to be the leading example of an integrated statewide healthcare system who provide care to consumers at the right place at the right time.

Peak Bodies and Colleges

Support

Engage

Advocate

National and state peak bodies and colleges (e.g. ACCRM, AMA, ANMF, RACGP, RACS, PSA, Pharmacy Guild) promote and protect the professional interest of their members and the healthcare needs of consumers and the communities. They will provide information, support and resources on the initiatives within the Digital Health Transformation which affect their members' line of work. A number of peak bodies have expressed their support for implementation of an interoperable system to improve the workflow of clinicians and improve health outcomes for patients. They will monitor and provide feedback on the expected benefits with implementation of the Digital Health Transformation which can consist of reduced workloads for clinicians, improved compliance requirements for clinical software vendors, enhancement in digital maturity and a greater focus on innovation.

Research and Education

Engage

Advocate

The Menzies Centre and other research organisations perform significant medical research that will be crucial in supporting innovative solutions for the Digital Health Transformation. Engaging and advocating digital health initiatives with such research and education institutions (e.g. UTas) will ensure the initiatives within the strategy are supported by leading research that will lead to healthier, longer and better lives for Tasmanians.

Local Government

Support

Integrated care within Tasmania will require support from the Local Governments across the state for an efficient implementation (as seen with COVID Vaccination response to achieve high vaccinations rates in a short period of time). The collaboration is critical to achieve optimal outcomes with implementation of the Digital Health Transformation and to enable providing the right care at the right time in the right place.

Other States and Territories

Engage

Integrated care beyond Tasmania, such as cross border transfers for specialist care, will be achieved through the Australian States and Territories working collaboratively with Tasmanian Health and identifying prospects for cross-agency integration of central IT systems.

Closing Comments from the Secretary and State Health Commander

In August 2021, the Department of Health published its strategic priorities to further deliver immediate actions identified in the 'Our Healthcare Future' consultation paper. The Tasmanian Government is committed to its reform agenda, delivering transformational changes to our community's health system. This includes investments in physical and digital health infrastructure to support better patient care now and into the future.

The 'Our Healthcare Future' consultation identified the need for additional investment which included digital transformation, long-term infrastructure, workforce planning, improving access to services, and supporting new models of care. I am proud to share with you this major investment in digital health that will allow the Department to make a step change in capacity and performance. The Digital Health Transformation for Tasmania outlines a 10-year program of work for the digital transformation of our health system.

Further, Tasmania has put in place a world class response to COVID-19, both clinically and digitally. For example, we have achieved high levels of uptake in vaccinations leading the nation with our online booking systems and screening tools. We have put in place highly effective models of care, facilitating the management of COVID-19 positive cases at home, reducing the risk to our community and vulnerable people in aged care and hospital environments. Each of these initiatives has been underpinned by investments in digital technologies. Tasmania can build on this track record of success, to improve access to our health services and their scalability, for all Tasmanians.

Further, in March 2022 we launched *The Healthy Tasmania Five-Year Strategic Plan 2022-2026*. The Plan identifies the role of digital technology has as one of the determinants of equity and access to health services for Tasmanians. It also singles out the importance of digital literacy as a component of increasing health literacy, to put Tasmanians in charge of their health care. More specifically, the Plan recommends the implementation of a range of measures to improve digital inclusion, which means having access to the internet and devices, the financial means to get online and the confidence to use the internet safely.



The shift to digital technologies will facilitate broader access to clinical professionals who may choose to practice remotely. Our transformational technology capability will help us to continue to attract the best talent to Tasmania, in addition to being a great place both to work and to live.

The digital strategy also brings together services across the state, whether public or private sector. This will enable Tasmanians to be the first Australians to experience a fully integrated healthcare system. It will be a multi-year journey, but one that I am confident will lead to better health outcomes and a more sustainable healthcare system.

Kathrine Morgan-Wicks
Secretary and State Health Commander

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Department of **Health**
GPO Box 125
Hobart TAS 7001

1300 135 513

Produced by the Office of the Chief Information Officer:
www.health.tas.gov.au

For any queries or feedback, please contact:
ocio.healthict@health.tas.gov.au