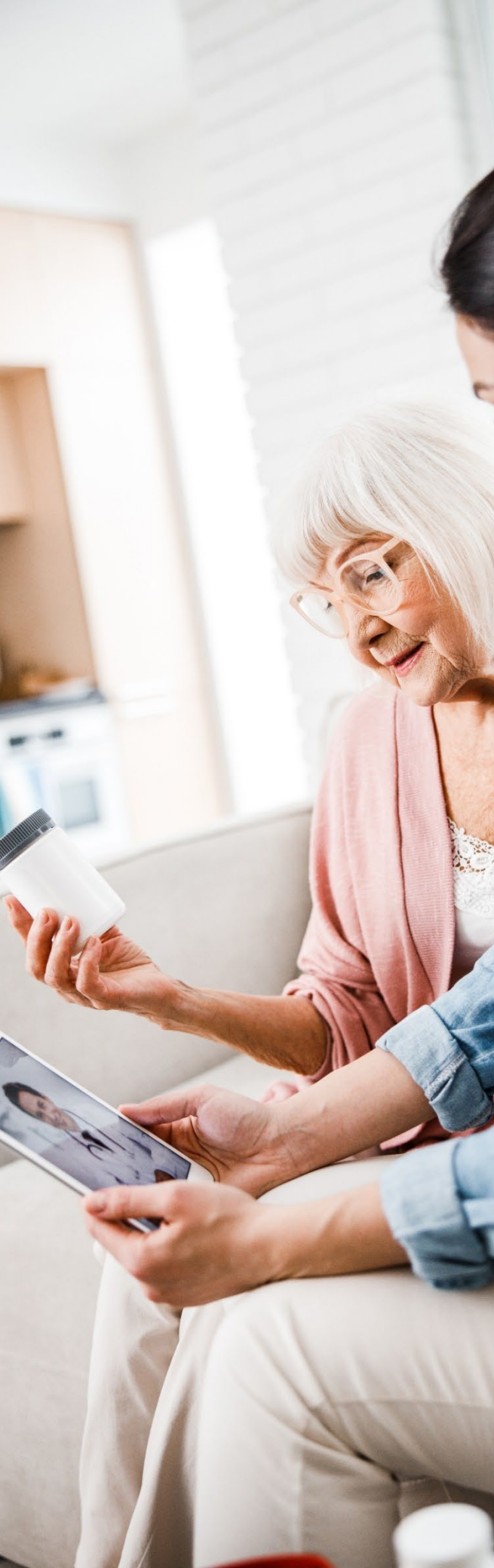# SESLHD
Virtual Health Strategy
2022-2024

FOREWORD

I am delighted to present SESLHD's inaugural 2022-2024 Virtual Health Strategy, which sets out our plan to become leaders in the use and scale of virtual health across our services.

Virtual health has become an increasingly important component of how we provide care and support to patients and consumers. Virtual health has been rapidly growing in momentum over a number of years and has been accelerated by the COVID-19 pandemic.

Virtual health capability has grown organically in SESLHD and significant innovation is occurring across the district. To date, these initiatives have been approached largely in isolation and we recognise the need to bring these together in a collaborative and transparent vision to ensure future investments in this space are equitable and cohesive.

SESLHD is well positioned to take advantage of this momentum and need for change, and the development of this Strategy signals our desire to embed virtual models of care and modalities across all aspects of our services. The Strategy sets the direction and priorities for building a common foundation that will enable this innovation and scaling.

The SESLHD Virtual Health Strategy has been developed with significant input from our consumers, clinical and non-clinical staff, service partners, and other external stakeholders. This strategy will be the cornerstone on which we all, as the SESLHD community, work together to achieve our vision for virtual health.

Mr Tobi Wilson | Chief Executive

ACKNOWLEDGEMENT OF COUNTRY

SESLHD acknowledges the Australian Aboriginal and Torres Strait Islander peoples of the Dharawal, Gadigal, Wangal, Gweagal and Bidjigal peoples as the traditional custodians of the lands we operate on. We pay our respects to ancestors and Elders, past and present.

SESLHD is committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.

CONTENTS

“

The vision…is to improve health for everyone, everywhere by accelerating the development and adoption of appropriate, accessible, affordable, scalable and sustainable person-centred virtual health solutions.

World Health Organization

”

THE FUTURE OF CARE PROVISION IN SESLHD

The future of how SESLHD provides care and delivers services is exciting.

> " The long-term vision for virtual health will be driven by **vast volumes** of **interoperable data** and **accessible, secure platforms**.
> This data will allow consumers to **own their health** in a way that was never possible before. As well, greater opportunities will exist to garner insights into the **health of the entire SESLHD population** and surrounding communities.[1] "

The way patients are engaging with their health is shifting.

Telehealth has acted as a bridge for many patients to feel comfortable interacting with virtual health, but opportunities to support patients with chronic disease, in particular, are growing.

A virtual approach to healthcare will have a greater emphasis on mental health and wellbeing, with a balance of physical and virtual solutions to proactively manage determinants of health.

Virtual technologies, integrated into existing and new systems, will allow consumers and patients to access care without having to visit the hospital. As well, virtual health will enable a 24-hour connection between the patient/consumer and their care team.

Virtual health promotes true patient/consumer engagement.

People's experience of healthcare will be increasingly personal – people will collect and know their own health data and genetic make-up, aiding diagnosis and personalised treatments. Technology such as wearables and other smart devices will allow people to closely and continuously monitor themselves, with this data streamed back to the care team and processed through algorithms to understand their health trajectory.[2]

A network of connected care means several specialists can look at this data simultaneously, enabling the early diagnosis of health issues. Rapid access to this data and to individual medical histories by healthcare professionals will increase the effectiveness of interventions, resulting in fewer hospital visits and time spent in healthcare facilities.[2]

Patients/consumers will also benefit from increased one-on-one personal care as a result of automation and the reallocation of human resources.[2]

> " Individual's **Personal Health Profiles** will be used to immediately **detect and address deviations through real-time services.**
>
> **Personalised experiences**, highly tailored to one's preferences and needs, **become the norm.**[1] "

[1] Source: Deloitte, The future of health. Available here.
[2] Source: ARUP, Future of healthcare ecosystems. Available here.

THE FUTURE OF CARE PROVISION IN SESLHD

## The possibilities of virtual health are endless.

ARTIFICIAL INTELLIGENCE [3]

AI is becoming increasingly sophisticated and in some cases can be more efficient than humans. Two examples of future applications of artificial intelligence (AI) in healthcare are:

1. Clinical assessment and evaluation. AI can assist patient history-taking by learning and asking a set of questions or prompting a clinician to reach a diagnosis. From a population perspective, AI can be used to model disease progression and trajectories, leading to better prediction through the use of algorithms and the accumulation of large datasets.

2. Assisted diagnosis. AI is already being used in clinical diagnosis, such as in early melanoma/skin cancer diagnosis. AI-assisted diagnosis can map lesions/moles over time, and detect and notify of changes. This technology will mature over time and have more clinical applications.
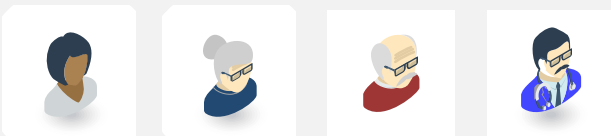
VIRTUAL AVATARS [1]

Two examples of avatar-assisted therapies are:

1. Applications that require the client to "embody" or represent themselves as an avatar in order to participate in the therapy.

2. Applications that do not require the client to embody an avatar, but rather, require the client to interact with another avatar, be it the therapist or an "other."

VIRTUAL AND AUGMENTED REALITY [2]

Virtual reality (VR) and augmented reality (AR) can be used for clinician education and training. For example, assisting surgeons to visualise the area on which they are to operate by projecting 3D representations of the patient's anatomy into the surgeon's field of view; projecting a map of a patient's veins onto their skin to make it easier for clinicians to find the vein first time.

VR and AR can be used to help healthcare workers better understand patients' conditions and situations, such as what it's like to live with dementia, chronic disease, or a debilitating injury. This can encourage deeper empathy amongst healthcare professionals and improve personalised treatment.

VR and AR also have applications in clinical care, such as assisting with chronic pain management and in mental health settings.

ROBOTS AND ROBOTICS [4,5]

Companion robots could be used to autonomously carry out tasks for patients; respond to humans and provide psychological support; and lift, mobilise and transport people. These robots will be aware of human movement and needs, detecting issues early on and providing health reminders, such as taking medication.

The use of robotics in surgery is already increasing. In future, more advanced robotics and a greater understanding of these machines can enable more complex surgical procedures to be performed. As well, robotics can be used to protect healthcare workers (either against infection, disease or other unsafe practices) by disinfecting surfaces, positioning medical equipment and devices, distributing medicines, and screening patients.

[1] Source: Rehm, I, et al. What Role Can Avatars Play in e-Mental Health Interventions? Exploring New Models of Client-Therapist Interaction. Available here.
[2] Source: Madison, D. 2018. The future of augmented reality in healthcare. 18(1). Available here.
[3] Source: Kuziemsky, C et al. 2019. Role of artificial intelligence within the telehealth domain. 28(1). Available here.
[4] Source: Seven visions of the future of healthcare. Available here.
[5] Source: Robotics in healthcare to improve patient outcomes. Available here.

DRIVERS OF CHANGE

Health systems are in the midst of profound change at every level. Shifting population needs, heightened consumer expectations and rapidly advancing technology are increasing pressure on limited budgets. Advances in clinical care and innovations in service delivery are transforming the way we think about health and aged care services.

COVID-19 created rapid demand for virtual health. Health services have actively taken up remote care technology and extended care beyond the hospital walls. This new way of connecting has given rise to new models of care and is changing the health care experience.

The eHealth Strategy for NSW Health[1] identifies **five major drivers** of change towards a virtually-enabled health sector (below).

PATIENT REDEFINED

New patient

Knowledge increase

Patient expectations in healthcare **continue to increase.**

WORKFORCE SHIFTS

Service demand

Ageing population

An ageing population, increasing burden of disease and greater focus on health prevention results in **increased demand for healthcare services and workforce.**

INTEGRATED CARE

Connected health systems

Patients with chronic and complex support needs

Healthcare demands are **changing and increasing.**

DIGITAL DISRUPTION

Smart device

Portable diagnostics

Implant medication delivery

Digital therapeutics

Genome sequencing

Machine learning

The past decade has seen **rapid development and adoption of technologies** that change the way we live and will have a similarly **transformative impact of health and care.**

OPEN INFORMATION AND BIG DATA

Access to data

Knowledge increase

Greater **access to quality data** is increasing our **understanding of how diseases develop and spread.**

---

[1] Source: eHealth Strategy for NSW Health 2016-2026. Available here.

THE NEED FOR VIRTUAL HEALTH

Without a **change** in the way we care for our community…by 2027 SESLHD will have:

112,500

50% MORE

Emergency **D**epartment presentations.

& 21,685

(20%) MORE acute admissions.

We will need **480** **ADDITIONAL ACUTE BEDS** to address this demand.

However, **rapid innovation is transforming how we engage** with the community in the provision of health care. Virtual health is uniquely placed to help reach those people who are currently not accessing services by overcoming issues of distance, cost, and stigma.

SYSTEM

Virtual health is one means of addressing this demand. For example, by providing proactive care to a greater number of patients, we can reduce potentially preventable hospital admissions (PPHA) and length of stay (LoS). **In the immediate-term, virtual health will save:**

Up to
12,000
bed days (33 beds)
through reduced length of stay and admission avoidance.

WORKFORCE

Up to **90,000** reduced **travel hours**; a societal benefit of **$1.7MILLION.**

PATIENTS / CONSUMERS

SESLHD currently provides services for approximately

442,000 PATIENTS

with chronic disease.

There are up to **225,000** **OUTPATIENT ENCOUNTERS** that could transition to virtual health models.

93,000 PATIENTS/CONSUMERS admitted to our hospitals could experience reduced lengths of stay as a result of virtual health.

NEED FOR THIS STRATEGY

SESLHD has an ambitious vision to integrate the hospital with the community and the patient's home, providing proactive, holistic and personalised care for all patients. We will focus on the efficient delivery of quality care that reduces the growing demand of chronic disease on hospitals.

To ensure SESLHD can deliver a sustainable long term solution for virtual health across the care continuum, an overarching strategy is required. It will define our priorities and determine our direction.

Our Virtual Health Strategy will also inform the development of the next SESLHD corporate strategy. This document will guide our organisation over the next three years, and will be launched in December 2021.

SESLHD's Virtual Health Strategy has been developed in the context of the NSW Health *Future Health* vision for our state. As well, NSW Health's Virtual Care Strategy and the associated Monitoring and Evaluation Plan[1] have informed the monitoring and evaluation framework for our Virtual Health Strategy.

"

VIRTUAL HEALTH CAN BE DEFINED AS:

Any interaction between patients and/or members of their care team, occurring remotely, using any forms of communication or information technologies with the aim of facilitating or maximising the quality and effectiveness of patient care.[1]

"

"

When our pre-surgery program moved to a virtual model, we found that drop-out rates dramatically decreased. Many of our patients live with Agoraphobia, and all of these people remained engaged in the virtual program, as they no longer needed to leave the house to participate. It also allowed our Allied Health clinicians to more effectively engage with participants in ways they couldn't previously, like doing virtual tours of patient's fridges and available foods at home and in real-time.

Clinical Nurse Consultant

"

[1] Source: NSW Health Virtual Care Strategy Monitoring and Evaluation Plan, October 2020.

5

> "SESLHD is aiming for widescale transformation of service delivery, and has embarked on an ambitious journey to embed virtual health within existing and new models of care across the LHD.
>
> Virtual health will promote independence and self-management for our patients and streamline their access to appropriate levels of care.
>
> SESLHD Director

OUR VIRTUAL HEALTH VISION

SESLHD aims to be **world leading in virtual health models** and technologies.

Virtual health is seamlessly **integrated into traditional models of care** and is not 'in addition to'.

Virtual health supports **easy, simple, collaboration between clinical and non-clinical teams** to improve services.

Innovative virtual health models, **embedded** in **care provision**, enable greater **flexibility**, **choice** and **access** for healthier lives.

Virtual health is scaled across SESLHD and provides **flexible** options for patients.

Virtual health is **utilised only when a patient chooses.**

Virtual health **improves access** for patients to timely and holistic care.

DESIGN PRINCIPLES

These principles will guide decision-making for new virtual models of care. They set the parameters for the scope of virtual health across SESLHD.

The principles, along with our vision statement, are our response to the identified drivers of change and need to meet increasing demand across SESLHD.

GUIDING PRINCIPLE

We will enable locally-driven innovation in virtual health, supported by consistent district-wide systems and a coordinated partnership approach across our communities.

INTEGRATED

Virtual health enables **enhanced service navigation and delivery options** early in the patient journey so that traditional acute care pathways can be avoided where possible.

A **multidisciplinary approach** is applied; roles and responsibilities are well defined.

Virtual health initiatives operating at scale **improve clinical decision making** and service **efficiency and effectiveness**.

Virtual health delivery options are available to clinical care teams in a **simplified framework**, with ongoing technical and non-technical support available to embed virtual health into models of care.

PERSON CENTRED

Patient safety, clinical quality and **ethical considerations** underpin all decisions regarding changes to models of care.

Equity and access is increased for consumers in **vulnerable populations**.

Clinician and patient needs are identified and used to drive **choice** around engagement with virtual health.

Patient information is shared (if this is the **patient's choice**); when shared, it is **centralised** and **accessible** in a timely manner.

Virtual models **supplement, not replace,** the care we provide.

IMPACTFUL

Approaches to care are **proactive versus reactive**; this is supported by timely information access.

People with **chronic conditions** are supported by virtual health to **remain well in the community**.

People with **acute conditions experience reduced length of stay** by using virtual health to proactively manage their condition at home or in-hospital.

HOW WE WILL DELIVER THIS VISION

Our long term vision for virtual health is bold and ambitious, requiring strong collaboration and coordination across SESLHD over three time horizons. This Strategy falls within the first horizon; it will see SESLHD build upon prior virtual health progress and create strong foundations for high-quality and safe virtual health provision.

To achieve this, there must be concerted effort and progress against each of the seven organisational elements listed on the following page. We have articulated what each element will look like in three years if we have achieved our Strategy.

From these seven elements, we have identified four foundational areas to focus on in the next three years to move the dial significantly and accelerate SESLHD towards becoming a world-leader in virtual health.

Within the scope of **this strategy (3yrs)**   Towards the **long-term vision** for virtual health across SESLHD

THIRD HORIZON

Virtual health is integral to models of care and the provision of care. SESLHD proactively scans for and assesses emerging evidence for virtual health models and technologies.

SECOND HORIZON

Virtual health is increasingly prevalent across SESLHD's models of care. Staff are increasingly proficient at using virtual health technologies.

FIRST HORIZON | BY 2024

The foundations for widespread, high-quality, safe virtual health provision are established across SESLHD. Existing virtual health models are scaled across SESLHD.
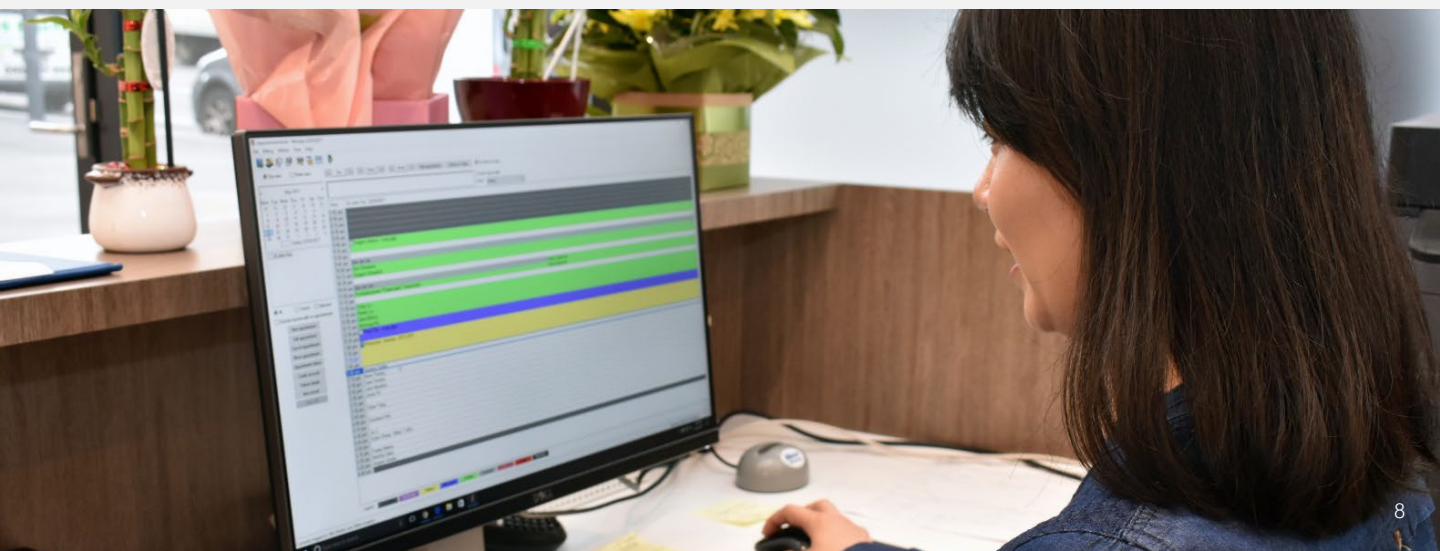
HOW WE WILL DELIVER THIS VISION

FIRST HORIZON | BY 2024

The foundations for widespread, high-quality, safe virtual health provision are established across SESLHD. Existing virtual health models are scaled across SESLHD and new models are considered for adoption.

Service models	Existing virtual health models have become SESLHD models of excellence. SESLHD actively seeks to develop new virtual models of care. Strategic investment of resources, training, equipment, and monitoring and evaluation is made to demonstrate effectiveness of virtual models. Virtual health infrastructure required to support these models is established. **This is a core foundation of this strategy.**
Roles and responsibilities	The governance, reporting and accountability structure for virtual health across SESLHD is established. Risk, clinical quality, patient safety, and ethical considerations form part of a standardised process to implement or amend virtual models of care. **This is a core foundation of this strategy.**
Technology and digital platforms	The necessary core IT infrastructure, systems and integrations are established as our virtual health common foundation. SESLHD is actively working to develop the capabilities that will see SESLHD regarded as a leader in virtual health across NSW. **This is a core foundation of this strategy.**
Data and analytics	Data is managed effectively and consistently across SESLHD according to a defined plan. SESLHD is actively working to develop staff's data capability. Data and analytics are more readily used to identify and develop business intelligence insights. **This is a core foundation of this strategy.**
Capability and capacity	Decision-making structures are being used to ensure consistency in implementation and delivery of virtual health. There is staff awareness and understanding of how virtual health can amplify clinical and operational outcomes, and staff are increasingly proficient in the use of virtual health technologies. **This is a critical enabler of this strategy.**
Culture and engagement	SESLHD is becoming increasingly known for a culture of innovation and digitisation. Staff are engaged with the Virtual Health Strategy and actively working to implement the strategic priorities.
External partnerships	SESLHD has a strong understanding of who to partner with. Strategic, symbiotic relationships are in place across the system. SESLHD is actively working with these partners to deliver on the Virtual Health Strategy's priorities, and our partners are seeing the impact of the Strategy for the communities they serve.

WHAT OUR VISION MEANS FOR PATIENTS AND CONSUMERS

Virtual health will, if a patient or consumers chooses, allow them to manage their health care as they would anything else in their life – with flexibility, choice, independence and self-management. The use of virtual health opens multiple opportunities for connected and convenient healthcare, if a patient chooses.

Related driver **| PATIENT REDEFINED**

SESLHD will support patient/consumers by:

Embracing technologies such as self monitoring to allow patients and consumers to track their wellness.

Designing systems and processes with a 'consumer first' lens, enabled by virtual technology. For example, self-service booking systems, to improve the experience and efficiency of accessing care.

Improving equity of access to care for all South Eastern Sydney communities through the inclusion of virtual technologies in new models of care.

Utilising virtual health technologies such as digital translation services, and making digital resources available to those who need it so they can participate in virtual health initiatives.

> "
> Now all of us kids can dial into Dad's appointments with the specialist, even though we live all over Australia. I find it comforting that now everyone knows what's happening with Dad, and it's not just me shouldering the burden.
>
> Family member
> ....
> I've been in and out of hospital so many times in the past year. I'm getting on, so it's hard to drive in the city, and finding a park and walking to the appointment is difficult with my shortness of breath. But last month the doctor said I don't have to come into the hospital as much – they've given me some equipment to wear at home and self-monitor, then the doctor checks the results and calls me if there are any issues.
> It's really comforting to know I'm still being looked after, and now I don't have to travel as often.
>
> Patient, 76 years old "

OUTCOMES

EXPERIENCE OF ACCESSING AND RECEIVING CARE

Patients / consumers:

- participate in care that is personalised, consistent and flexible to their needs, regardless of their location.
- participate in care in a way that suits them and reduces stress around logistics and waiting times.
- are supported to understand, access and use virtual health.
- have access to equitable, appropriate and safe virtual health care.

HEALTH OUTCOMES THAT MATTER TO PATIENTS / CONSUMERS

Patients / consumers, and their carers:

- have less opportunities to acquire hospital-borne infections.
- will have minimised risks of hospital-acquired infections with fewer hospital stays.
- spend less time in hospital and acute settings, resulting in improved quality of life.

WHAT OUR VISION MEANS FOR CLINICIANS AND HEALTHCARE WORKERS

Virtual health, at its core, needs to make things easier for clinicians and healthcare workers. As well, clinicians and healthcare workers are best placed to innovate and tailor virtual health models to meet the needs of the communities they service.

Clinicians and healthcare workers play a critical role in championing virtual health technologies and models as they offer and introduce these methods to patients and consumers.

Time saved in utilising virtual health technologies (e.g. more appropriate scheduling) can be reinvested into higher collaboration across MDTs, allowing clinicians and healthcare workers to innovate and learn from one another.

Related driver | **WORKFORCE SHIFTS**

> " Secure messaging technologies have allowed the treating team to communicate more quickly. For example, the other day I need to coordinate a team to do a U-slab (cast) on a trauma patient in ED. I quickly found the Ortho-Trauma Physio group on the messaging app and sent a message to the team advising them of what needed to be done, when, and where.
>
> It saved me having to page various people, or look up who was rostered on this shift and contact them directly. We got the U-slab (cast) done within the hour. "
>
> Orthopedic surgeon

SESLHD will invest supports in the following areas:

COMMUNICATION AND AWARENESS
To ensure staff understand how to access the consistent SESLHD-wide systems that are available and draw inspiration from virtual models of care across all domains.

TRAINING AND EDUCATION
To upskill staff in clinical workflow adaptions and use of technology.

INNOVATION AND RESEARCH
To empower staff to lead local initiatives, innovate, and engage in new and novel models, modalities and ideas. To connect staff with research partners to advance ideas.

FLEXIBILITY IN SERVICE DELIVERY
To equip and support staff to offer the right option for each patient, whether that be virtual, hybrid or face-to-face.

ADMINISTRATIVE AND TECHNICAL SUPPORT
To provide the required administrative and technical support to all staff, at all locations, at all times.

OUTCOMES

EXPERIENCES OF PROVIDING CARE

Health professionals:
- can confidently make evidence-based decisions with timely access to comprehensive, complete and real time information.
- are empowered to innovate and improve models of care.
- can learn from one another and collaborate to provide the best care and service for patients and consumers.

WHAT OUR VISION MEANS FOR OUR SYSTEM AND PARTNERS

SESLHD operates within a multi-dimensional and complex health system. We also work with a range of partners to provide services, improve operations, and help us innovate. This 'external ecosystem' is critical in helping us progress our strategic priorities.

Strong partnerships and service integration across SESLHD will aim to achieve four goals:

1. Reduce unplanned attendances

2. Reduce duplication of services

3. Improve shared care models across service settings

4. Collaborative approach to innovation and evaluation

Related driver | **INTEGRATED CARE**

In practice, SESLHD will:

Create strong partnerships with GPs; neighbouring LHDs and specialty health networks; and private service providers covering acute, Allied Health, specialist and community services, to implement integrated virtual models of care.

Foster symbiotic partnerships with the NSW Ministry of Health, eHealth, and Pillars to pilot and implement innovative models of care and enabling technologies

Partner with research institutions, universities, other academic organisations and industry partners to accelerate research, innovation and commercialisation of virtual-health enabled products and services.

"
The integration of GP systems with a common platform means I can upload the Shared Care Plans of my patients for the specialist. Using this technology, as well as telehealth means that in General Practise I can conduct three way conversations with the patient, a specialist and myself to handover information and care. This way we can track the patient's care, share relevant data and use this platform for assigning tasks.
"

General Practitioner

OUTCOMES

EFFICIENCY AND EFFECTIVENESS OF CARE

Services are able to:

- prevent unnecessary hospitalisation, support earlier discharge from hospital, and reduce serious exacerbations for people living with long-term chronic conditions.
- efficiently use their existing resources to provide care at scale.
- monitor and evaluate their processes in a timely way.
- form collaborative partnerships without the limitations of geographical distance.

HOW WE'LL WORK TOWARDS OUR VISION IN THE NEXT THREE YEARS

The success of our vision is dependent on the perspectives, needs and challenges faced by our patients and consumers, clinicians and healthcare workers, and more generally our system and partners.

With this in mind, our strategic priorities have been developed after consultation with over 270 stakeholders from across various levels and roles within our district and externally. These should be viewed as our roadmap to horizon 1 and our path to the vision for virtual health as our destination.

HORIZON 1 - The foundations for widespread, high-quality, safe virtual health provision are established across SESLHD. Existing virtual health models are scaled across SESLHD.

Priority 1 focuses on continuing to innovate and progress existing virtual models across the district, while the foundation is being created. Priorities 2, 3, 4 are centred around building the core SESLHD-wide foundation to achieve virtual health at scale.

STRATEGIC PRIORITIES

1. EMBED VIRTUAL HEALTH MODELS
We will continue to champion and further invest in existing virtual/hybrid models of care throughout SESLHD. We will actively encourage, nurture and develop new virtual models of care and invest in these to embed them across SESLHD.

2. ESTABLISH VIRTUAL HEALTH OVERSIGHT AND ACCOUNTABILITIES
The success of widespread virtual health across SESLHD requires a strong, established governance structure. The structure includes clarity around accountabilities, responsibilities, and reporting.
Oversight for virtual health across SESLHD should also include responsibility for virtual health impacts on patient safety, clinical quality, risk, and ethical considerations.

3. INVEST IN A VIRTUAL HEALTH TECHNOLOGY FOUNDATION
Significant progress in virtual health will require a solid foundation – that is, the acquisition, development and implementation of core IT systems, infrastructure and integration of applications across SESLHD and our individual services/sites (our 'common foundation').
This enables innovation.

4. DEFINE OUR DATA MANAGEMENT STRUCTURES & PROCESSES
High quality and consistent data management is the key enabler of integrated services and reliable supporting technologies. Data management refers to patient/consumer data and data sharing between clinicians, as well as the data that is entered into / extracted out of virtual health technologies.

UNDERPINNED BY VIRTUAL HEALTH CAPABILITY AND CAPACITY
Training and education of clinical and non-clinical staff. Providing the technical and administrative support needed to embed virtual models of care.
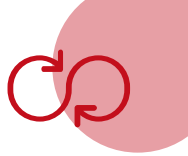
PRIORITY ONE
EMBED VIRTUAL HEALTH MODELS

WHAT IS THIS PRIORITY?

We will continue to champion and further invest in existing virtual/hybrid models of care throughout SESLHD. We will actively look to develop new models of care and invest in these to embed them across SESLHD.

WHY IS THIS A PRIORITY?

Virtual health has grown organically across SESLHD over a number of years. Some of these models are already world-leading in their own right.

To achieve widespread scale of virtual health, SESLHD will adopt a 'model of care first' mindset – that is, existing models will be used to demonstrate best practice and innovation, and models of care will drive the establishment of new virtual health initiatives.

We will build on the momentum that has been created, and continue to innovate and transition to virtually-enabled models of care.

INITIATIVES

1.1 Identify and confirm priority virtual health models.

1.2 Establish a Community of Practice / forum.

1.3 Increase investment in virtual models and priority areas.

1.4 Showcase and communicate virtual health models.

> Videoconferencing support presents an opportunity to improve the clinical care and outcomes for neonates and their families at RHW NICU. This support is provided at all stages of the baby's journey; acute, conservative, surgical, transfer and post-discharge phases.
>
> Videoconferencing support will improve the daily nursing and medical nursing handover with smooth transfer of information and reduced errors arising out of handover. It will also ensure that all parents/guardians receive equitable care and optimal outcomes irrespective of geographical location.
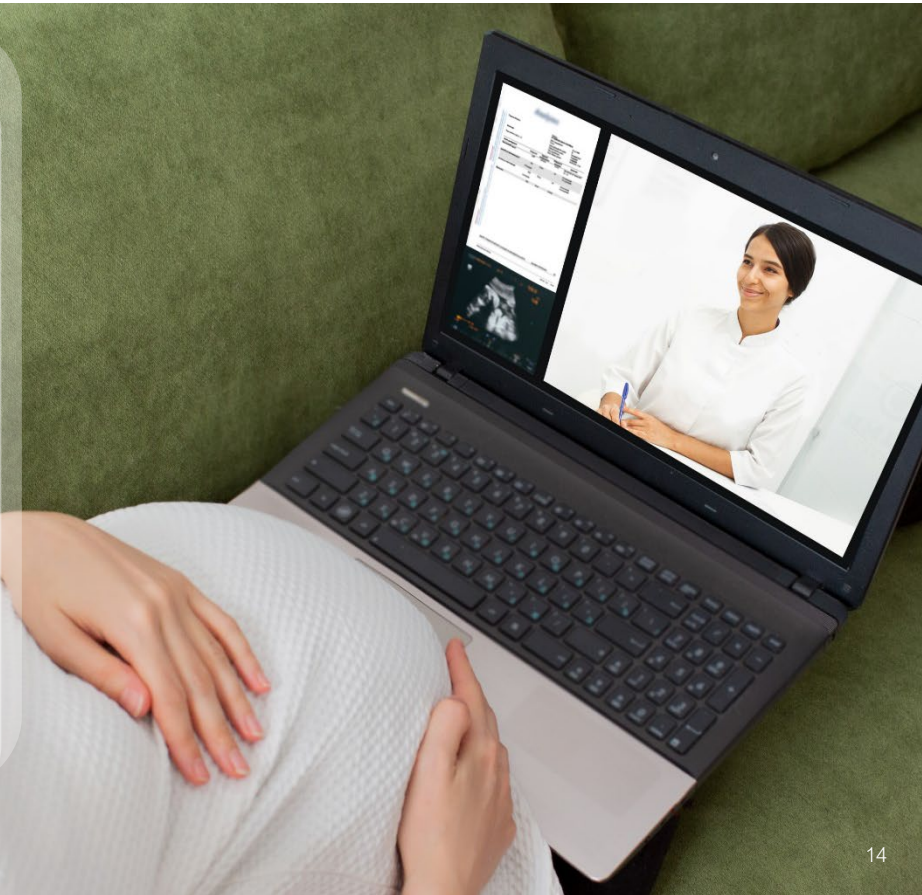
PRIORITY ONE
EMBED VIRTUAL HEALTH MODELS

EXAMPLE MODELS OF CARE

PRIMARY CARE MANAGEMENT

- Shared care models enabled through secure messaging platforms.
- Digitised support to navigate the health system.
- GPs consulting with specialists via telehealth.
- Patient/consumer education provided virtually.

COMMUNITY-BASED SERVICES

- Community nursing services with specialist involvement (where needed) via telehealth.
- Hospital in the Home consultations/assessments conducted via telehealth and using virtual health equipment and remote monitoring (e.g. TCC).
- Specialist outreach services.
- Telehealth appointments with the MDT.
- Digital clinical decision support tools.

PRIORITY ONE
EMBED VIRTUAL HEALTH MODELS

AMBULATORY / SHORT-STAY

- Patients admitted to Community-facing Medical Assessment Units (MAUs) through predictive analytics and algorithms.
- Centralised intake via telehealth and digital referrals.
- Virtual MDT consultations and meetings, including Allied Health professionals.

SPECIALIST INPATIENT CARE

- Specialist in-reach services using overbed cameras to virtually monitor patients from any location and Workstations on Wheels (WOWs) to conduct consults.
- Virtual rounding by the MDT.
- Virtually-supported programs for enhanced recovery after surgery (ERAS) (e.g. AROP-tech).
- Digital clinical decision support tools (e.g. Diabetes Dashboard).
- Virtual pre-admission consults and clinics.

PRIORITY ONE
EMBED VIRTUAL HEALTH MODELS

The establishment of virtually-enabled spaces across SESLHD will provide a common platform and the infrastructure required to support virtual health models and embed these at scale across SESLHD. These spaces and platforms are key enablers of virtual models of care.

There are six key components (below) required to fully support scale of virtual health across SESLHD. Each serve a unique purpose and are also interrelated. These components will allow SESLHD to pilot and support new and existing virtual models of care.

These components will provide SESLHD-wide support, either in one location or as common platforms and processes to support the functionality in multiple locations.

SESLHD-wide functions	Localised functions that utilise a common SESLHD platform	

Access and Referral Centres

Spaces dedicated to a single point of contact for consumers/patients. Enables navigation, referral, assessment and triage for clinics and specialists. Well-connected to community-based services.

Hub desk

Reception space that serves as a helpdesk, centralised point of information, and coordinates device and equipment management / tracking / repair.

Audio-visual-enabled rooms

Individual and group rooms / booths that support one-to-one and one-to-many (e.g. one patient to one clinician / one patient to multiple MDT members) videoconferencing and telehealth consultations.

Remote Monitoring Centre

Dedicated space for clinicians to observe and respond to remote monitoring data and other sources of patient/system information. Clinicians can flag deteriorating patients and trigger action. Functionality for data analytics and use of Artificial Intelligence.

Command and Flow Centre/s

Patient flow coordination / management for local hospitals. Operational functions that support patient flow, demand prediction, staff schedules and workload, transport management, and logistics solutions.

Training and education space

Individual workspaces and larger collaborative spaces to facilitate training, education and simulation activities that help clinicians and staff transition to virtual health delivery.
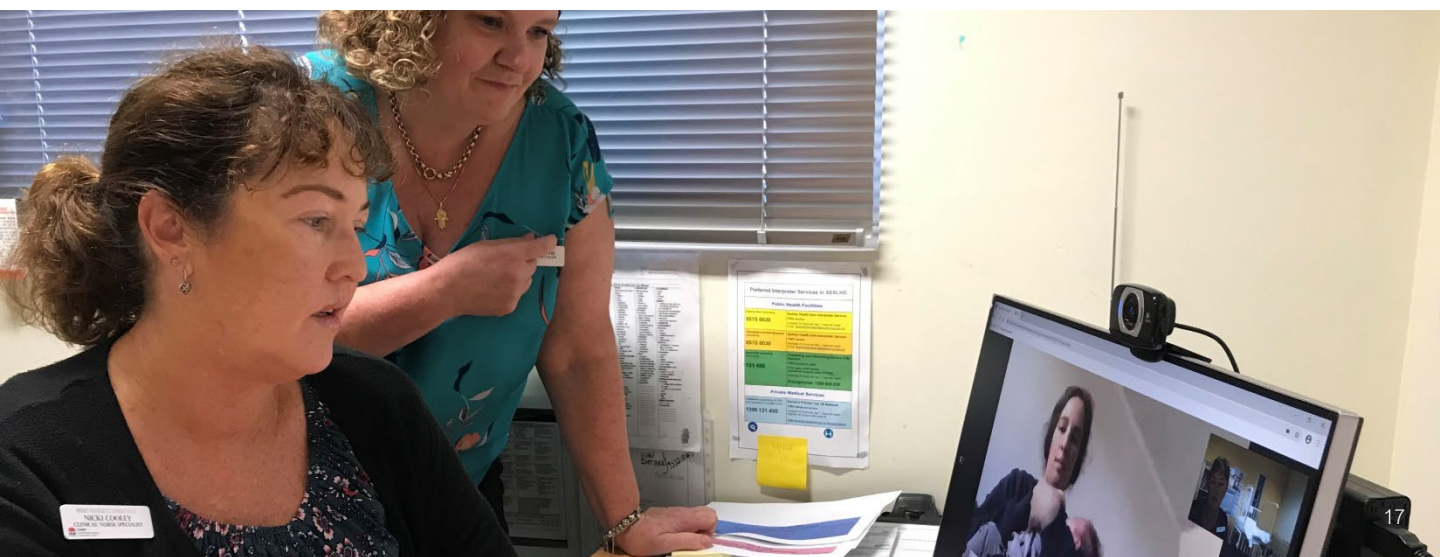
PRIORITY TWO

ESTABLISH VIRTUAL HEALTH OVERSIGHT AND ACCOUNTABILITIES

WHAT IS THIS PRIORITY?

The success of widespread virtual health across SESLHD requires a strong, governance structure. The structure includes clarity around accountabilities, responsibilities, and reporting. Oversight for virtual health across SESLHD should also include responsibility for virtual health impacts on patient safety, clinical quality, risk, and vulnerable populations and ethical considerations.

WHY IS THIS A PRIORITY?

The establishment of a governance structure will:
- help realise the full potential for virtual health;
- ensure clinical risk is managed;
- develop clear reporting/accountability lines; and
- help foster collaboration across the system and different clinical groups.

By 2024, clear governance arrangements will be embedded and understood. SESLHD-wide decision-making frameworks, structures, and processes will be established to ensure risk, quality and safety, and ethical considerations form part of a standardised process to implement and/or amend virtual/hybrid models of care.

INITIATIVES

2.1 Establish governance structures and accountabilities.
2.2 Define, develop, pilot and implement a virtual health implementation framework.
2.3 Further develop and refine the evaluation framework and implement across SESLHD.

The Quality Assurance Framework (below) is a critical tool that we will use in the establishment of virtual health oversight and accountability, and new models of care, across SESLHD.

Is it clinically safe to use this virtual modality? Is patients privacy and confidentiality protected?

Would the patient receive care more quickly if it were face to face?

Do patients have choice and flexibility in how they access their care?

Is there a strong evidence base that supports this virtual modality?

Can all patients access this virtual modality and receive the same or better care?

Is it more efficient to use this virtual modality?

SAFETY · TIMELINESS · PATIENT-CENTREDNESS · EFFECTIVENESS · EQUITY · EFFICIENCY

QUALITY ASSURANCE FRAMEWORK

PRIORITY THREE

INVEST IN A VIRTUAL HEALTH TECHNOLOGY FOUNDATION

WHAT IS THIS PRIORITY?

Significant progress in virtual health will require a solid foundation – that is, the acquisition, development and implementation of core IT systems, infrastructure and integrations across SESLHD and our individual services/sites (our 'common foundation'). This will support the scaled, consistent, and ease of use of virtual health technologies for both internal and external users.

WHY IS THIS A PRIORITY?

A focus on investing in virtual health technologies and platforms will see the necessary core IT infrastructure, systems and integrations available to support, enhance, and extend virtual/hybrid models of care. As well, investing in the development of technology capabilities will see SESLHD regarded as a leader in virtual health across NSW.

INITIATIVES

3.1 Communicate and maximise use of current systems.

3.2 Develop and implement a technology roadmap.

3.3 Undertake upgrades and integration of existing systems, platforms and technologies.

Related driver **| DIGITAL DISRUPTION**

> " Telestroke is so easy for myself and other VMOs to use because it was built by us, for us. Everything is searchable and because we have such minimal free text and everything is coded, we can access the information we need quickly.
> The other night I was at home having dinner when I got a call from a nurse who needed my support. Joining via video means that not only can I see the patient and be confident in my recommendations, but I can also train our staff as I go. "
>
> Visiting Medical Officer

PRIORITY THREE
INVEST IN A VIRTUAL HEALTH TECHNOLOGY FOUNDATION

There are four groupings of virtual health technologies that make up SESLHD's common virtual health technology foundation. These technologies have been identified through SESLHD stakeholder consultation and best practice. Investment in each of these technologies will support staff and clinicians to review current, and develop new, models of care and enable widespread scale of virtual health.

IDENTIFICATION AND STRATIFICATION

Access and Referral Centres ('Community Command Centre')
Single platform for multiple access points, external scheduling, consumer advice, and navigation to the right care.

Predictive analytics and algorithms
Stratify high-risk patients and those at-risk/rapidly-deteriorating using new and existing datasets and algorithms.

Consumer self-service booking system
Intuitive, connected, responsive web and/or app-based system to allow consumers to manage their appointments/scheduling.

Virtual avatars
To provide rudimentary assessment, triaging, reassurance, reminders etc.

CARE PROVISION

Videoconferencing and telehealth
Includes normal and high-definition video, overbed cameras, and WoWs.

Secure messaging and communications channel
Two-way messaging and asynchronous communications.

Remote monitoring
Includes remote monitors (community or home based), wearables and other monitoring equipment.

Robotics
An integrated approach to incorporating robotics technology into clinical practice.

Virtual and augmented reality
Animating remote patient treatment and innovative treatment modalities.

PATIENT / CONSUMER FLEXIBILITY, CHOICE, AND ACCESS

SUPPORT FOR PATIENTS

Care navigation
Care coordination and service navigation via telehealth / web / app-based system.

Devices for patients / consumers
Provision of tablets, smartphones and/or mobile data to support clients to participate in virtual health.

Mobile applications
Use of validated, approved third-party apps or an in-house, purpose-built SESLHD-wide apps.

Digitally-delivered education
Consumer and carer education delivered digitally. Includes access to facilitated online support groups/forums.

DATA SHARING AND SERVICE INTEGRATION

Command Centre
Patient flow, bed management, logistics. Automation, predictive alerts.
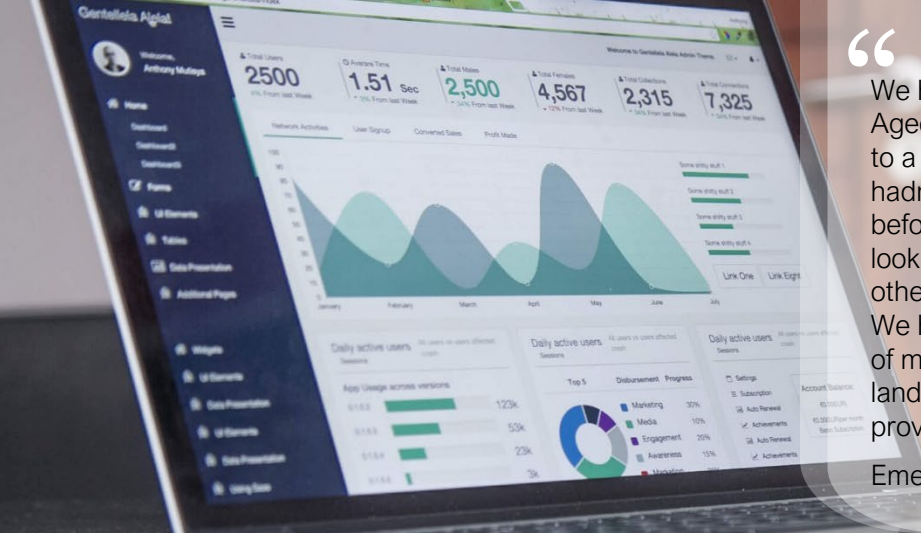
Information systems
Access to shared patient notes, results, care plans, risks, etc. connecting all care providers, including family carers.

Data analytics and business intelligence
Analytics to improve service performance and outcomes, including through the use of predictive information and Artificial Intelligence (AI).

Supply chain and logistics solutions
Automation of ordering and distribution of consumables, therapeutics and equipment to increase efficiency.

Items in grey italics indicate elements of the technology foundation that are more aspirational and will require significant investment.

PRIORITY FOUR

DEFINE OUR DATA MANAGEMENT STRUCTURES AND PROCESSES

WHAT IS THIS PRIORITY?

High quality and consistent data management is the key prerequisite of an integrated virtual health system and reliable supporting virtual technologies. Data management refers to data sharing between clinicians, and patient/consumer data and other data that is entered into and extracted out of virtual health technologies.

Progress against this priority area will see our data management processes, infrastructure and architecture defined in accordance with the agreed direction and parameters across SESLHD. Data and analytics will be more readily used to identify and develop clinical and business intelligence insights.
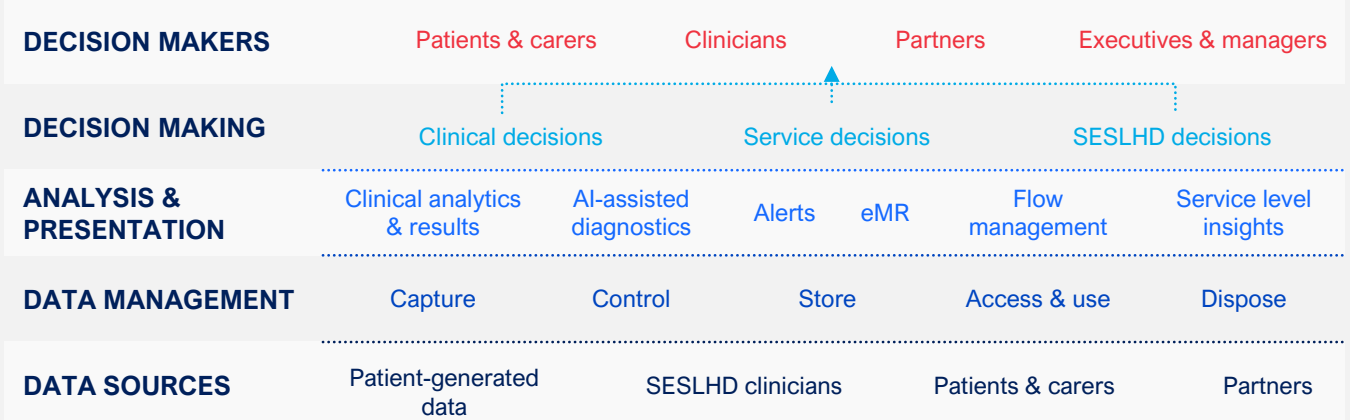
WHY IS THIS A PRIORITY?

There are significant refinements required of our data management processes and systems. We will design our data assets and infrastructure with the intent to fully integrate our services and create a seamless experience for patients/consumers, clinicians and the system.

The below diagram outlines the critical components of our data design, and will form the basis of our defined plan for data and analytics management across SESLHD.

INITIATIVES   Related driver **| OPEN INFORMATION AND BIG DATA**

4.1 Develop a defined plan for data and analytics across SESLHD.
4.2 Define data management processes and architecture.
4.3 Identify and develop business intelligence and data analytics capabilities.

DECISION MAKERS	Patients & carers		Clinicians		Partners	Executives & managers
DECISION MAKING	Clinical decisions		Service decisions		SESLHD decisions	
ANALYSIS & PRESENTATION	Clinical analytics & results	AI-assisted diagnostics	Alerts	eMR	Flow management	Service level insights
DATA MANAGEMENT	Capture	Control		Store	Access & use	Dispose
DATA SOURCES	Patient-generated data		SESLHD clinicians		Patients & carers	Partners

OUR PLAN TO UPSKILL AND EQUIP OUR PEOPLE

Across SESLHD, coordinated action is required to build the capability of our staff and consumers so that the benefits of virtual health are realised more fully in more settings.

FOR CLINICAL STAFF

We recognise that the provision of healthcare via virtual technologies is a radical shift for most clinicians. As well, upskilling and capability-building is labour-intensive and time-consuming to begin with. Therefore we will support this shift through deliberate investment in technology and administrative support.

FOR NON-CLINICAL STAFF

We must also continue to equip non-clinical and administrative staff with the skills required to become virtual health specialists (where desired and needed) and be able to provide critical support to clinical and patient-facing teams. Corporate and healthcare support workers will be critical to realising our vision.

It is expected that roles and requirements will evolve over time, but with the understanding that virtual health will be an integral and embedded part of how SESLHD provides health services, rather than an expectation of specific roles.

> " My aunt is in her 70s and still working as a nurse. When she had to start using the eMR, she didn't respond well – it was so different to how she'd worked for the majority of her career. Her Nurse Unit Manager gave her the space and time to understand the system and figure it out.
>
> If staff are given the time in a non-stressful and supported environment, learning and upskilling will happen intuitively. "
>
> Clinician

There are four main areas, based on the National Digital Health Capability Action Plan[1], that will guide our approach to upskilling and equipping our staff and consumers:

FRAMEWORKS AND GUIDELINES
to support consistent virtual health application and use across SESLHD.

EDUCATION AND TRAINING
to enable the SESLHD workforce to upskill and adopt virtual health technologies.

OVERSIGHT
of the accountability and responsibility of workforce capability-building.

COLLABORATION
to promote a shared understanding of virtual health and a culture of continuous learning.

Supported and informed by a SESLHD-wide change program

[1] Source: Australian Digital Health Agency, *The National Digital Health Capability Action Plan*. June 2021.

22

THANK YOU

We would like to thank all who contributed to the development of this strategy.

Thank you to our consumer and partner representatives for their stories and open insights.

Thank you to our staff for investing their time in providing insight, viewpoints and feedback on virtual health in SESLHD.

We hope that with continued collaboration we can realise our vision for virtual health in SESLHD.

ABOUT SESLHD

SESLHD covers 468 square kilometres

1. Sydney/Sydney Eye Hospital
2. Uniting War Memorial Hospital
3. Prince of Wales Hospital
4. Royal Hospital for Women
5. St George Hospital
6. Calvary Health Care Kogarah
7. Sutherland Hospital
8. Garrawarra Centre

SESLHD-wide services
Population and Community Health
Mental Health Services

37% of us have long-term health conditions and **21%** live with multi-morbidities

959,100 residents call our District home

Almost **40%** of us were born overseas

Aboriginal and Torres Strait Islander peoples make up about **1%** of our population

In 2019-20 >

179,687 patients were admitted

242,809 people attended our emergency departments

7,726 babies were delivered at The Royal, St George and Sutherland hopitals

45,199 operations were performed