

Telehealth in practice guide

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Introduction

Telehealth is the delivery of healthcare at a distance using information communications technology (ICT). Telehealth is simply the modality used to connect and provide care – it connects clinicians or any other person(s) responsible for providing care to patient/s and carer/s. It can be used for the purposes of assessment, intervention, consultation, education and/or supervision.

In NSW, providing healthcare is challenging, particularly given the large geographical distances and limited resources. The NSW Government is committed to ensuring people living in NSW have equal access to quality care close to home. Integrating telehealth into clinical practice will minimise barriers to access and inequity.

The use of telehealth has long been associated with rural and regional services. Whilst the distance may not be large, it is equally important for metropolitan services to understand that telehealth provides the same benefits to their patients and workforce, alongside its significant role in supporting and providing tertiary care to rural and regional patients.

Advancements in ICT have revolutionised the way we work and deliver services, and telehealth will continue to evolve with these advancements. For example, telehealth now includes enhanced capability videoconferencing platforms, remote monitoring of patients through wearable technologies, special patient monitoring devices and the increasing use of clinical apps.

Embedding sustainable telehealth services into the NSW Health system offers multiple opportunities for patients, their carers, healthcare workers and the system as a whole. All services and models of care are encouraged to consider the use of telehealth as a part of normal practice. This will increase the choices available to clinicians and patients, so there are a variety of options to provide and access care.

All levels of the NSW Health system are responsible for supporting the appropriate use, growth and developing evidence of telehealth applications. From overarching strategies through to the service plans at every LHD and SHN, we all need to encourage and support the workforce to challenge their practice, be creative, flexible and unafraid to explore the possibilities. This cultural shift will ensure that the use of telehealth in clinical service delivery becomes normal practice.

Purpose

The purpose of this document is to provide information to initiate an interest in telehealth, and to support clinicians to have a deeper acceptance and understanding of the value and impact of telehealth in their practice.

This guide provides the foundations to build a dynamic and adaptive workforce that can confidently integrate technology to assist all facets of service delivery.

It should be used in conjunction with national, state or locally developed clinical standards, protocols, policies and procedures for the provision of care.

Key messages

- Where clinically appropriate, telehealth is a safe, effective and a valuable modality to support patient- and family-centred care.
- Clinicians need to be creative, responsive and flexible to integrate telehealth into their clinical practice.
- All models of care should consider how telehealth can be used to enhance access without compromising the quality and standards of care provided.
- Telehealth provides the opportunity for clinical teams to truly integrate health and social care sectors to enhance the patient journey and outcomes.
- Telehealth can provide an equitable service delivery mechanism for people in NSW to access quality healthcare. This includes but is not limited to Aboriginal populations, people from culturally and linguistically diverse (CALD) backgrounds and people with disadvantage or disability.
- Telehealth provides more opportunities to support flexible workplaces and ensures health providers are well connected and supported in their roles.
- Telehealth technology alone will not bring about the change in practice. A key factor to success will be embedding behavioural change in the use of the technology.

Telehealth in NSW

Telehealth is the delivery of healthcare at a distance using information communications technology (ICT). Telehealth is simply the modality used to connect and provide care – it connects clinicians or any other person(s) responsible for providing care to a patient and carer/s. It can be used for the purposes of assessment, intervention, consultation, education and/or supervision.

Telehealth offers benefits for patients, their carers, healthcare workers and the health system as a whole through improved access, availability, and efficiency of quality healthcare. Patient-centred, clinician-led telehealth provides an efficient and effective model of care that complements and supplements face-to-face consultation.

The implementation of telehealth in the health sector has significant potential to address and support clinical and workforce needs.

The following telehealth modalities are addressed in this guide:

- telephone
- video conferencing
- store and forward
- remote monitoring devices
- websites and applications (apps).

Telehealth gives patients the option (where clinically appropriate) to access their healthcare from a suitable private location (home, workplace) or at another health facility. Rather than moving clients, health providers or educators, the clinician uses technology to support the transmission of voice, data, images and information.

Throughout NSW, telehealth models of care can be initiated or implemented across any system settings (first response, emergency, admitted, non-admitted and the wider community) – with our imagination the only limitation.

Roles and responsibilities in NSW

There are multiple organisations that play a significant role and have key responsibilities for contributing to, managing, delivering and supporting telehealth services in NSW.

In NSW, representatives of these organisations contribute to the ACI Telehealth Strategic Advisory Group (TSAG). This collaboration is a key element of success in achieving the state vision for telehealth.

The TSAG held its inaugural meeting in December 2016, following the release of the *NSW Telehealth Framework and Implementation Strategy (the Implementation Strategy)*. The ACI was tasked with chairing this governance group.

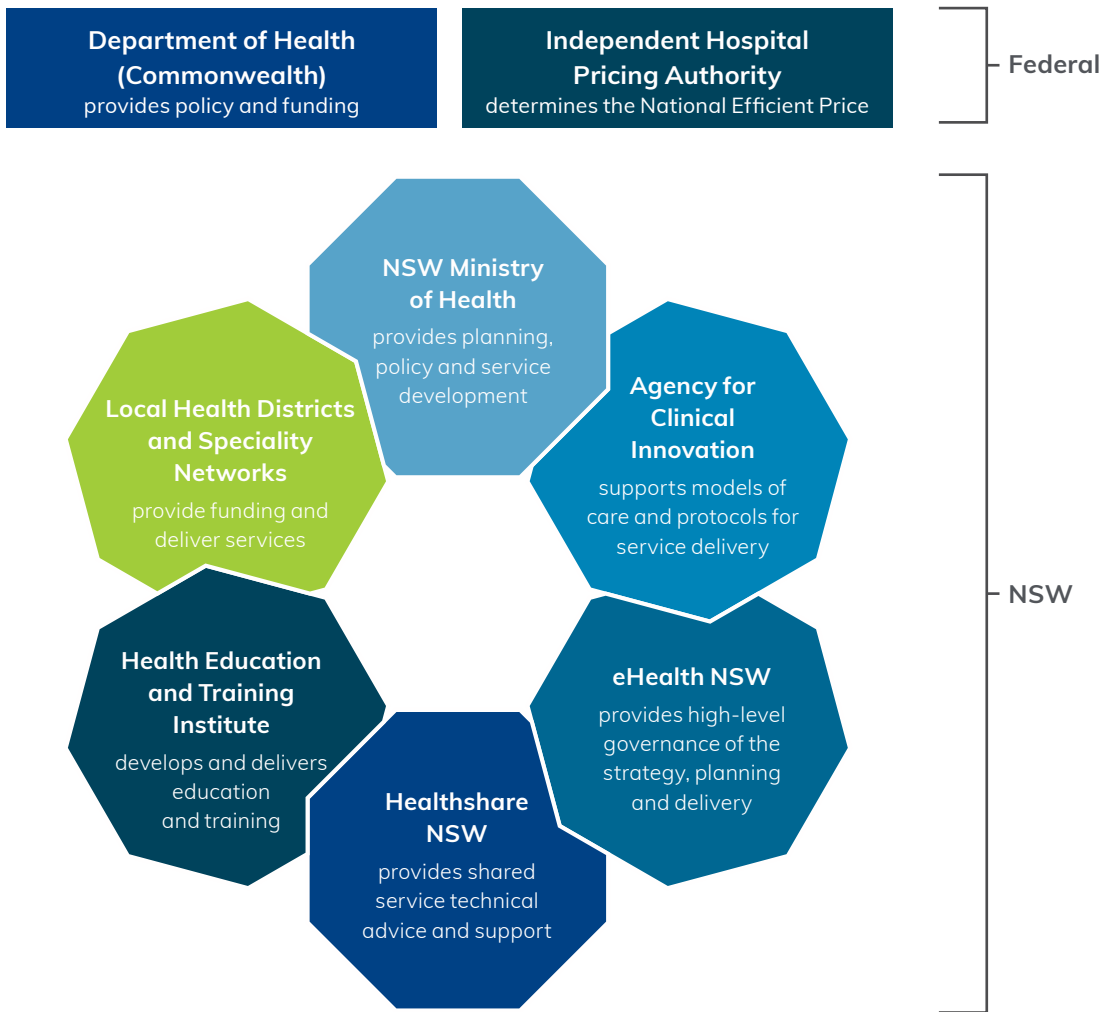
The advisory group is responsible to identify and address existing barriers within NSW that impact the use and uptake of telehealth.

Further information about the TSAG and its support of telehealth can be obtained from the [ACI website](#) and NSW Telehealth Sharepoint.

The ACI plays a significant role in leading innovative clinical uses of technology in partnership with eHealth NSW, LHDs and SHNs. This includes sharing telehealth use cases and models of care across the health sector network to inspire and support system-wide integration and implementation of telehealth.

Figure 1 (next page) is an overview of the key organisation stakeholders for telehealth in NSW.

Figure 1. Roles of key government bodies in telehealth in NSW



Key roles to support the use of telehealth

Across NSW, every organisation has a duty to respond and support the delivery of care regardless of the modality. The challenge to meet the healthcare needs within allocated resources is constant. Telehealth is most effective when supported across an organisation, from the Chief Executive to frontline staff.

Telehealth requires a commitment to challenge current practice and to explore all delivery possibilities using available technology as the tool. This should be seen as encouragement to innovate, create and achieve, with a commitment to enhance resources supporting the modality of telehealth for it to become a part of normal everyday practice. It is expected that during this process, this movement will encounter barriers. However accepting this as a culture change will provide a safe environment to integrate telehealth as a practical and clinically safe modality of healthcare.

Each LHD and SHN has identified a first point of contact to support the integration of telehealth into practice. This staff member will support internal employees of that organisation and support the connections for cross-boundary service delivery.

There is a growing commitment from LHDs and SHNs to have a dedicated Telehealth Manager to be the driving force of the local strategy. This is part of the larger state strategy and provide direct assistance in the establishment, implementation and evaluation of telehealth services. There may also be other contacts in the organisation who can support local delivery of telehealth (see page 13).

The Telehealth Manager (ACI) or the Manager of the Conferencing Support Team (eHealth NSW) are other contacts that can assist you to key contacts in your organisation. Contact the ACI Telehealth Manager at ACI-Telehealth@health.nsw.gov.au or the Team Manager, Conference Services – eHealth NSW at EHNSW-VideoConf@health.nsw.gov.au

Benefits

In NSW, we have identified the key enablers and barriers of telehealth that impact on its uptake. It is acknowledged that there are varying degrees of maturity and uptake across the state, however successfully many clinical champions have overcome barriers, embedding telehealth sustainably into their services. NSW continues to move forward with stronger governance and focus on strengthening the enablers and addressing the barriers from a statewide perspective.

Table 1. Reported benefits of telehealth-enabled models of care

Benefits for patients and their carers	Benefits for providers and local delivery systems
<ul style="list-style-type: none"> • increase timely access to appropriate interventions (including faster access and access to services that may not otherwise be available) • provide more accurate and timely diagnosis • reduce the burden of travel on health and wellbeing • reduce the burden on carers • reduce financial barriers and costs associated with travel • reduce the inconvenience/impact to family and carers, work commitments and social factors • provide access to services not otherwise available (reducing inequities in access to health services) • provide tools to help people understand and manage their health condition • less face-to-face specialist visits • larger networks of care as more carers, family and friends can attend consultations • more patient-centred care, with increased independence and self-management 	<ul style="list-style-type: none"> • extend the hours of service access and provide consistent, continuous care (greater provision of local services) • extend the scope of practice for rural and remote clinicians through consultation and shared care with specialists • empower people to self-manage their health condition • provide flexible and responsive workplaces to support workforce needs • improve communication, networking and collaboration between healthcare professionals across the health sector • greater support and reduced professional isolation for rural clinicians • support the development of flexible and sustainable service delivery models that promote integration across primary and secondary care, particularly for people with chronic conditions • greater access to continuing education and professional development, including more experiential learning • reduced time spent travelling, and reduced expenses related to patient transport and burden on subsidised transport schemes

These benefits largely relate to access to services, convenience, patient-centeredness, integration and quality of care, travel requirements, costs, support and education for health care workers, and a reduced burden on particular elements of the health system. (*Strategic review of telehealth in NSW: Final report, Nous group (2014)*)

Enablers and barriers

In NSW the key enablers and barriers of telehealth that impact on the uptake of telehealth have been identified. Each organisation reported similarities and differences for the enablers and barriers to telehealth. This generally is reflective of the organisation's level of maturity and investment, however there is a strong commitment to a collective approach which aims to strengthen the enablers and address the barriers.

Table 2. Key enablers and barriers of telehealth

Enablers	Barriers
<ul style="list-style-type: none"> • strong leadership • change management support for clinical teams • dedicated positions to support the implementation and evaluation of telehealth services (Telehealth Managers and clinical champions) • effective planning and resources (human and financial) to enable telehealth models to be sufficiently supported • stable internet access • technology that is easy to use, accessible, fit for purpose, reliable, secure and cost efficient • benefit realisation for patients, carers, clinicians and the health sector • existing infrastructure • mechanism for consumers to advocate for the services they need most • statewide telehealth governance 	<ul style="list-style-type: none"> • lack of consistent, strong and clear governance • new initiatives (proof of concept) and pilot projects is not centrally coordinated • level of understanding of activity-based funding (ABF) and other funding sources for those block funded • dedicated telehealth support positions where expertise in change management, clinical and ICT are connected • access to adequate and innovative technology that is interoperable within systems • lack of telehealth education and training to support workforce • culture/attitude • need for statewide systems to effectively schedule clinical appointments that is interactive and intuitive

Table 3 (following page) identifies the critical factors that support organisations to implement successful telehealth enabled models of care.

Table 3. Critical success factors, at the model level, for effective telehealth-enabled models of care

Governance	<ul style="list-style-type: none"> • Telehealth is guided and supported by strong leadership. • Telehealth has clear governance arrangements that are embedded and understood.
Purpose/strategy	<p>Telehealth is:</p> <ul style="list-style-type: none"> • driven by one or more specific clinical needs and therefore has a clearly defined purpose and is clinically relevant • applied to an existing model of care where it is well defined, or to a new model of care • underpinned by a robust clinical care model • integrated into business as usual.
Service and value delivery	<p>Patient and locally focused</p> <ul style="list-style-type: none"> • Telehealth-enabled models of care are patient-centred, focusing on the clinical care of patients rather than the technological aspects of the model • Local relevance (i.e. consideration of local issues, needs and existing resources) • Telehealth is accessible to the community and patients are supported to use telehealth <p>Planning</p> <ul style="list-style-type: none"> • Implementation of the model is based on robust planning, which involves key stakeholders, organisational partners and the local community from the beginning • Medico-legal, privacy, ethical and other regulatory frameworks are assessed to determine whether they pose critical barriers to the delivery of telehealth services and relevant issues are addressed <p>Monitoring</p> <ul style="list-style-type: none"> • Models are monitored and evaluated on an ongoing basis to support continuous improvement <p>Funding</p> <ul style="list-style-type: none"> • A sustainable funding model underpins the service • Funding arrangements do not act as disincentives to the use of telehealth • There is adequate planning and upfront discussion about resourcing required at the central LHD/SHN level and the model of care level to ensure the service is sustainable (e.g. fully exploring all associated costs and how these costs will be funded) • Models are flexible to allow them to adapt to changing clinical needs. • Consideration is given to redesigning a model of care to integrate a telehealth solution • An iterative process is used to design a model of care
External alliances and partnerships	<ul style="list-style-type: none"> • There is extensive consultation and collaboration with local government and non-government agencies. • There is strong cooperation between organisations involved in telehealth services.
Business processes	<ul style="list-style-type: none"> • Adequate clinician reimbursement is available for telehealth services. • There are resources dedicated to ensuring effective coordination. • Standard guidelines and manuals that clarify business rules and procedures and are developed and implemented to ensure consistency and ongoing operation, even with changes of personnel.

Workforce	<ul style="list-style-type: none"> • The model is supported by a sustainable workforce. • Staff receive adequate education and training in the new technology and model of care. • There is adequate administrative support. • Ongoing technical support is readily available.
Culture	<ul style="list-style-type: none"> • Effective change management (including a communications plan) supports the introduction of telehealth. <p>Support for telehealth</p> <ul style="list-style-type: none"> • Stakeholders perceive a need for telehealth and are engaged with the model. • Staff view telehealth as improving current care arrangements
Physical assets	<ul style="list-style-type: none"> • There is adequate infrastructure in place to meet minimum requirements (e.g. sufficient bandwidth). • Technology is reliable, easy to use, convenient and easily accessible. • Technology aligns with clinical service needs. • Technology is compatible across jurisdictions (including LHD/SHNs) to enable interoperability.
Organisational structure	<ul style="list-style-type: none"> • There is central service management and coordination.
Roles and accountabilities	<ul style="list-style-type: none"> • Dedicated and appropriately skilled telehealth coordinators are in place (typically at the LHD/SHN level), who can be called up to provide support for individual models. • Clinical champions are located at each site.
Information management	<ul style="list-style-type: none"> • Appropriate data collection mechanisms that enable measurement of costs and clinical benefits are in place. • Data are available to be transmitted and stored securely. • Integrated into the eMR.

Telehealth modalities

Telehealth is an overarching term encompassing telemedicine, tele-education, tele-therapy, tele-mentoring and tele-monitoring. A range of modalities are included: the telephone, video conferencing, store and forward, remote monitoring and the use of clinical apps.

Clinicians need to determine the most appropriate modality to support the clinical needs of the patient.

For staff who are unfamiliar and may lack confidence with the use of technology, it is recommended to start to use the technology in non-clinical situations. This may include meetings and education sessions, which will boost skills, knowledge and confidence.

Telephone

The use of the telephone to support and deliver health services is the most common telehealth service contact mode reported across all LHDs and SHNs in NSW.

Telephone is often used to provide results, follow up patient progress following discharge or between consultations where real-time images are not required for consultation and where there is electronic medical record (eMR) access to the relevant results. Telephone consultation occurs between the patient and healthcare provider(s).

Video conferencing

The use of video conferencing to support clinical care provides a real-time audio and video interactive link between multiple participants.

As video conferencing technology has advanced and quality and access has improved, its use is more accepted. Where patients have access to good internet access and suitable equipment, video conferencing provides a more interactive and engaging experience for the clinician/s, the patient and their carer/s.

NSW Health employees have access to video conferencing platforms backed by state infrastructure that has the flexibility to connect all NSW Health facilities. They also have the capability to connect with external providers outside of the NSW health network, state and country to support the workforce to connect worldwide.

Store and forward

The use of email is a tool to communicate between patients, carers and healthcare providers to support patient care.

Store and forward is an electronic communication method of acquiring and storing of clinical information (including data, images, sound and video). The information is forwarded to, or retrieved by, another clinician for the purposes of clinical review for intervention, management or advice.

The advantage of this is that consultation can occur when there is available time. For example: an MRI can be taken on Monday, then consultation with interdisciplinary team and patient can occur Tuesday. Wound consultation with nurse and GP occurs on Tuesday with patient. Interdisciplinary team consultation with podiatrist and infectious disease specialise using clinical data, wound images and wound culture results on Friday ahead of next GP and nurse review on the following Tuesday.

There are many digital camera, scopes and diagnostic instruments (e.g. otoscope, digital stethoscope, blood pressure, ultrasound, ECG) that can capture both still and video images.

It is paramount to securely store and manage these images and videos.

Remote monitoring devices

Remote monitoring is a relatively new modality that uses mobile technology to collect and send medical and healthcare data to an app, device or service outside the traditional clinical setting. This includes:

- wearable devices
- mobile equipment and devices that include peripherals
- smartphone apps that are used to collect patient measures
- online portals used to enter personal health data.

Dependant on the functionality of the device, the patient diagnostic information collected should be entered into the patient's record (automatically or manually) or provided to a healthcare professional for advice and management.

Remote monitoring can be passive (where measurements are sent from a device automatically) or active (where people collect their own clinical readings and send them to their healthcare provider). It can also involve an alert or alarm in high-risk situations, e.g. notification when a patient's monitored vitals are outside of the flags. All remote monitoring services should have clinical procedures in place that clearly identify escalation procedures that are communicated to patients.

Remote monitoring equipment or devices can be used to measure:

- blood glucose
- blood pressure
- heart rate
- heart rhythm (pacemaker)
- respiratory function
- oxygen saturation
- body temperature
- body weight
- falls.

This is not an exhaustive list. As technology continues to develop, new devices are developed to meet clinical needs.

Multipurpose devices that take different clinical readings can be useful for people with more than one chronic condition and be less overwhelming than having a number of devices.

Websites and applications (apps)

There are a wide range of websites and apps available to support forms of telehealth functionality, including phone calls, video conferencing, remote monitoring, appointment scheduling and educational information.

These apps and websites provide a tailored interface for both the clinical user and the consumer. As there is a large commercial market for these products, thousands already exist and are tailored to both specific and general health conditions. Programs are available that encompass the entire patient journey from prevention to palliative care support.

Prior to implementing an app or website, either through buying/using an existing one or developing something new, there are several key consideration, including:

- undertaking a review of the current environment to identify existing or alternate options
- data privacy and security
- clinical governance
- ethics and research
- interoperability and integration
- cost
- sustainability.

Prior to commencing any project, speak with your local Telehealth Manager who will connect with the local Innovation Manager, ICT Manager and the eHealth NSW Innovation Manager. This will ensure you to receive the right advice from the beginning and optimise the telehealth experience for all users.

Online resources about apps

The following 2018 *Innovation Series* online resources have basic information about health apps, and considerations required prior to development and implementation:

Workshop videos

https://www.youtube.com/playlist?list=PLbw1KgO1-UrGgfUP9su_VRfPAkO9SaWBT

Presentations

https://www.dropbox.com/sh/2ib8jfr94w9o5dy/AAA1kw9gg6EPZOHL_SNXSSuka?dl=0

Where to start

Your first point of contact should be your organisation's Telehealth Manager or Telehealth Lead. This person will be able to:

- provide knowledge and advice about local governance and available technologies supported by your organisation that are most likely to meet your needs and requirements
- provide guidance and support around the clinical change management processes of ICT implementation
- provide practical advice and information on procurement, such as what to request and support to develop a business case.

Other contacts within the organisation may include:

- Clinical Leaders
- Clinical Redesign Manager
- Innovation Manager
- Colleagues within your professional network that have used telehealth as a part of their practice
- Chief Information Officer
- ICT Manager or ICT Support Officers
- Project Management Officer or Planning Manager
- Finance/Performance team members
- ACI Clinical Network Managers
- ACI Telehealth Manager
- eHealth Conferencing Team.

Please refer to the [ACI website](#) for your organisation's first point of contact.

To conduct a successful telehealth session the following elements must be determined:

1. The **business function** of the session
2. The **workflow** that supports that business function
3. The **participants** in the session and their role
4. The **activity** undertaken by the participants in the session
5. The **features/capabilities** of the systems that support the activity
6. The **spaces** where the participants will be providing or accessing telehealth
7. The **communications infrastructure** that connects the spaces
8. The **hardware** that is required to support the activity of the participants in those spaces.

This leads on to the design, implementation and the operational processes to support the delivery of the clinical service.

Clinical function

The business function is the type of clinical interaction or activity that is required to address the patient's need.

Telehealth can be used to support clinical services, indirect services and non-clinical services. The patient journey may require one, two or several episodes of care and can be provided by a range of face-to-face and telehealth modalities depending on the clinical need.

For clinical services, the clinician should determine the appropriateness of the service in line with the clinical standards. It is expected that the choice of modality and the technology identified to support the service should be fit for purpose and provide the clinician with the same capabilities as a face-to-face service. Depending on the business function, it may be required to adjust the model of care to ensure that the normal activity can be achieved. This may include other health providers (where physical examinations are required) or a change in administrative processes to arrange access to patient information such as diagnostic results, images and referrals. In most instances these are only minor adjustments.

All NSW Health entities are engaged and committed to providing appropriate use of technology to support clinical, indirect and non-clinical uses for the benefit of patients, their carers and the NSW Health workforce. It is important to become familiar and confident in the use of the hardware and systems to be used and receive training and troubleshooting techniques prior to the commencement of patient services.

First response telehealth services

The use of telehealth in first response setting supports time critical access to specialists to support emergency care.

A number of modalities are suitable in this setting including video conferencing, store and forward and remote monitoring. Examples of models include:

1. Care/advice is accessed between the ambulance to the receiving ED for consultation liaison.
2. Care/advice is accessed between an ED to a speciality retrieval service for consultation liaison (e.g. rural/regional hospital to the Neonatal and Paediatric Emergency Transport Service (NETS))
3. Care/advice is accessed from a non-medical site using mobile equipment to connect to a speciality service for consultation liaison.

Examples include: 000 Call centre/control centre, Emergency Command Centre, Police Ambulance Early Access to Police Ambulance Early Access to Mental Health Assessment via Telehealth (PAEAMHATH), disaster management, accident site management, Royal Flying Doctors Service. Retrieval vehicles may include road vehicles, helicopter or fixed wing aircrafts.

Emergency telehealth services

The use of telehealth in emergency departments is time-critical, as it provides direct access to specialists where this would otherwise be unavailable.

A number of modalities are being used in emergency situations, including telephone, video conferencing, store and forward and remote monitoring.

Telehealth is being used to access specialists who are rostered on-call or support statewide services. The technology advancements supports remote access to over-bed cameras, other mobile devices and the eMR system.

Telehealth may be used as a hospital avoidance strategy to monitor the patient in their own environment.

Examples of the telehealth models include:

1. Care/advice is accessed between an ED to another ED for consultation liaison (e.g. rural to regional hospital or to metro based hospital)
2. Care/advice is accessed between an ED to centralised Patient Flow Unit
3. Consultation liaison provided to a patient in an external health facility but the patient is not transported to ED (e.g. residential aged care facilities to EDs)

Examples include: stroke, cardiology, trauma, burns, maternity, toxicology, forensic assessment, resuscitation, mental health assessments, RACF, paediatric assessments.

Admitted (inpatient) telehealth services

Telehealth in the admitted space can support the management of patients, reduce a patient's length of stay (LOS) with Hospital in the Home (HiTH) initiatives and provide opportunities to integrate care with a range of providers to assist with the patient's ongoing care post discharge. With mobility, user access to the technology is available throughout the hospital from the patient's bedside or any other space across the hospital including clinic rooms, imaging units, allied health therapy rooms.

A number of modalities are being used in the admitted space including telephone, video conferencing, store and forward and remote monitoring.

Examples of telehealth models include:

1. consultation liaison to an admitted patient
2. handover prior to transfer from one health facility to another health facility or external health provider (patient's GP)
3. Hospital in the Home (HiTH)
4. A multidisciplinary clinical review/case conference with clinician/s with or without the patient from the health facility and with carer/s, other health or social care providers.

Additional examples include daily ward rounds, pre-discharge reviews, surgery, patient deterioration, end of life planning, mental health, stroke rehabilitation, trauma care, allied health rehabilitation and therapy sessions such as speech, occupational health and physiotherapy.

Non-admitted (outpatient or community) telehealth services

There are a large range of services using tele-enabled clinics for non-admitted patients. Typically, these services are provided from outpatient clinics or community health settings and may include telehealth modalities that are appropriate for the clinical need.

The determination of whether a telehealth model of care is entirely substituted for face to face services or complimentary to face to face services should be case by case determined by the clinician and acceptable by the patient.

There are a number of non-admitted models that are possible from outpatient and community health facilities:

1. A healthcare provider at a health facility, the patient attends the telehealth appointment using their own resources from a private location, e.g. home, work or mobile location
2. A healthcare provider at a health facility, the patient attends the telehealth appointment at the patient's home with another healthcare provider
3. A healthcare provider at a health facility, the patient is at a different location, a telehealth appointment occurs and no provider is present at the patient end
4. A healthcare provider at a health facility, the patient and other providers are located at another location (private or other health facility).

5. A multidisciplinary clinical review/case conference with a number of providers from health facility/ies with the patient present at home or at a health facility or with another health or social care provider
6. Case conferencing and care planning with no patient present between health providers located across one or more facilities. These may or may not include other health or social care providers
7. Remote monitoring where a device is provided to a patient to monitor and report relevant clinical diagnostics. The management of the patient data is closely monitored and regulated by local clinical guidelines and procedures
8. Remote monitoring where the patient's personal device is used to monitor and report relevant clinical diagnostics. The management of the patient data is closely monitored and regulated by local clinical guidelines and procedures.

Specific examples include: cardiology, paediatrics, geriatrician, genetics, endocrinology, psychiatry, dietetics, physiotherapy, speech therapy, pre-admission clinics, post-operative clinics, sexual health clinics, mental health review, wound reviews, smoking cessation, weight management, diabetes clinics, breast screening, chest clinic – tuberculous medication supervision, high risk foot clinics and teledentistry.

Indirect telehealth services

Technology can be used to support person-to-person interaction that may not directly relate to clinical care but can support the workforce, patient outcomes and wellbeing:

1. Healthcare interpreter to a clinician and a patient/carer in a NSW Health facility
2. Patient to carer/family/friends/social care provider/educational provider
3. Carer to clinician or healthcare provider.

Non-clinical telehealth

Technology can be used to support non clinical services and corporate collaboration. This can include education, training, supervision, mentoring or a non-clinical session relating to the day-to-day management and administrative operation of the service. These sessions can be 1:1 between clinicians, small groups or larger groups to suit the purpose.

The use of video conferencing technology enhances the opportunity for our workforce and partners to increase their knowledge, skills and networks without leaving their community. This is very beneficial from a capacity building and financial perspective (travel, accommodation, shift coverage) and can determine whether or not clinicians receive access to professional information, education and are well connected to their colleagues.

Organisers are encouraged to include the provision of video conferencing and live streaming of events. Even workshops can be virtually delivered successfully – with some creative thinking, participants may feel like they are in the room and all participants can have a great experience.

The eHealth NSW Conferencing Service Team can assist with logistics of offering video conferencing and live streaming of events. Organisers should contact the team in the initial planning stage so they can assist and support with venue requirements. Where possible NSW Health events should utilise the large number of facilities that we have across the state that are connected to the NSW Health network.

The eHealth Conferencing team can be contacted via email: EHNSW-VideoConf@health.nsw.gov.au or phone on 1300 679 727.

External providers and support services

External providers can be across health, social or educational sectors and may be included to enhance the patient's holistic outcomes:

- affiliated health services
- cross-border health services
- residential aged care facilities
- general practitioner (GPs)
- Aboriginal medical services/Aboriginal controlled health organisations
- non-government providers
- private providers
- educational providers
- other government organisations.

Workflow

Following the determination that the business function is clinically appropriate, the clinical workflow should consist of the following steps:

1. Offer the patient access to a suitable telehealth modality. For the use of video conferencing identify the patient level of access to a suitable device and advise of patient information required for appointment.
2. Determine patient and other participant supports. For appointments where the patient will not be supported by a NSW Health provider, provide patient resources and advice about how to connect.
3. Determine the location of all participants and the requirements of each location (see Spaces).
4. Determine the required hardware and software (see Communication Infrastructure and Hardware).
5. Schedule appointment and book required resources (human and physical).
6. Confirm attendance and confirm access to required patient information to assist with business function.
7. Conduct the appointment. For those using video conferencing it is recommended to:
 - arrive early to test or to arrange administrative or technical support to assist, if unfamiliar
 - introduce all participants ensuring that all participants are captured in the video frame or ensure device can reposition to capture the participant speaking
 - implement communication etiquette
 - it may be required to post signage (dependent on the location) to advise of the appointment to minimise distractions and to maintain patient's privacy.
8. Document in the patient record and complete activity reporting as per local guidelines.

Participants

The number of participants to be involved will be determined by the clinical and patient need. The use of technology truly supports the ability to integrate care and support the holistic management of a patient's needs from multiple locations.

Patient suitability

The decision to determine if an appointment is suitable for telehealth is determined by the clinical provider and will take into account clinical and patient related factors. Models of care using telehealth may require consideration of inclusion and exclusion criteria, but each clinical business function will be an individual assessment and will vary from patient to patient.

The following factors should be considered:

- level of physical assessment required
- availability of support at the client site
- availability and access to appropriate devices including video conferencing units/systems
- ability of the client to participate such as physical, mental, social and cognitive barriers
- distance between provider and client locations
- dependency on local availability of associated imaging and lab tests
- client desire to participate in a telehealth consultation
- ability to schedule telehealth session within the timeframes for a service or program's standard of practice guidelines.

Activity

As a part of the business function and workflow, the following activities might be expected during the session:

- audio only conversation
- audio and visual conversation
- document presentation
- monitoring stations
- diagnostic monitoring (live and historical), e.g. medical imaging, pathology results, medical record
- demonstration
- physical examination
- live and historical observation
- supervision
- instant message and chat
- interactive whiteboard
- non-verbal communication (facial signals, body gestures)
- private conversations
- education (forum, webinar).

Features

The clinical requirements need to determine the technical solution. These are often known as capabilities. These are the expected features that might be required to support the activities listed on page 16:

- instant messaging
- screen sharing
- document sharing
- sharing of session
- remote control between participants
- remote camera control
- video
- audio/voice
- presence
- waiting room
- scheduling – requirements matching
- recording
- voice to text
- interactive features
- connect to peripheral devices, e.g. digital stethoscope, probes and scopes
- mobile or fixed.

As innovative models of care are developed, new capabilities are realised. It is beneficial to liaise with your telehealth contact to ensure that new capabilities can be communicated and sourced through the appropriate channels.

Spaces

Across health facilities there are a number of spaces that are used to provide clinical services. These spaces generally can be used to implement telehealth services using existing fitted, mobile technology or identification of new equipment to support the clinical need.

All NSW Health facilities are enablers of telehealth for patient care, and a reciprocal agreement exists between LHDs and SHNs to assist patients and their carers to utilise appropriate equipment to support successful telehealth consults.

Table 4. Telehealth venues

Clinical	Non-clinical
<p>First response</p> <ul style="list-style-type: none"> • Call centre / control Centre • Ambulance • Retrieval vehicles (helicopters / fixed wing aircrafts) <p>Hospital setting</p> <ul style="list-style-type: none"> • Resuscitation bay • Mental Health safe assessment room • Adult and neonatal intensive care unit • Inpatient wards/bedrooms • Operating theatres • Outpatient clinics • Imaging (x-Ray, ultrasound) • Physiotherapy group room/gym • Monitoring stations • Nurses station <p>Community settings</p> <ul style="list-style-type: none"> • Local community health facility • Patient's residence/workplace • Residential aged care facility • Courtroom • Aboriginal medical service • Affiliated health service • Correctional facility • Private provider • GP clinic • Gym 	<ul style="list-style-type: none"> • Private residence • Workplace • Community identified space (library, etc.) • Accident site • Office space • Meeting rooms/boardroom • Simulation lab • Tutorial room • Huddle room • Auditorium • Lecture theatre

Spatial attributes

It is beneficial to engage with your local Telehealth Manager or ICT unit to support the identification of suitable spaces to conduct telehealth services that will provide a quality experience for all participants.

The following list identifies attributes relevant to the physical space that affect the outcome of the clinical session:

- facility (hospital, community, patients home, private rooms, mobile)
- size
- environment (location of air conditioning vents/microphones/speakers)
- wall and floor colours and finishes
- lighting and window treatment
- accessibility (wheelchair access, etc.)
- furniture
- room layout/orientation
- phones and peripherals
- privacy
- acoustics (including hearing induction loops)
- dedicated or shared (whether the space is dedicated to clinical/corporate functions).

When taking part in telehealth consultations, it is important to make sure the rooms that all participants are using are private with no audible external noise and disturbances which might interrupt the consultation.

Communications infrastructure

NSW Health Facilities technology infrastructure is supported by eHealth NSW and locally by your ICT team.

The NSW Ministry of Health, the Pillar agencies and the LHDs and SHNs and all of their facilities are all a part of the Health Network and have direct access to internally networked unified communication infrastructure, this includes video conferencing facilities.

There are three fundamental requirements to enable quality video consultations to take place:

1. Internet connectivity
2. Hardware
3. Software solution.

Internet connectivity

A quality internet connection with sufficient bandwidth is required at both ends of the consultation or problems may occur which will impact on the quality of the consultation. A poor connection can result in audio drop outs, freeze frames, lip sync problems and pixelation.

The audio-visual quality of a video conference is directly related to the speed at which the data are transmitted along the internet connection. This is relevant when connecting to patients in a private location. For clinical video consultations, the recommended upload speed for the internet connection is 512kps.

Testing the speed of an internet connection can be easily undertaken by visiting <http://speedtest.net>. If the upload speed of the internet connect is too slow (i.e. less than 512kps), contact your internet service provider to discuss options for improving your current connection. ADSL2+ and 4G wireless connections are the most desirable options. Satellite connections do not generally meet the minimum data transfer requirements.

If the internet connection cannot be improved, videoconferencing for telehealth would be less than optimal. Participants may be able to test an alternative location or attend their local NSW Health facility where the quality connection can be assured.

If the current upload speed is adequate, it is also important to discuss the cost for the holder of the plan (whilst minimal) and whether the network (plan) can cope with the extra data transfer for video consultations. The extra network activity may impact on the rest of the practice (e.g. upload and download speeds slow dramatically on some network connections when extra data usage occurs).

Hardware

There is a variety of hardware (devices) already available for use by NSW Health employees to support clinical and corporate services. With technology advances and mobile equipment, the tools to implement care via telehealth is now more accessible and efficient.

It is recommended that you engage with your Telehealth Manager who can assist to identify existing devices, assist with the modification of existing devices, e.g. clinical carts, workstation on wheels or purchase new equipment to support the clinical need and service.

The purchasing of hardware is regulated to ensure that the hardware is interoperable with the existing local and state infrastructure and meets clinical standards. The Telehealth Manager will work with clinical teams to ensure that the right equipment for the clinical need is:

- selected (fit for purpose)
- supported
- latest model
- purchased at a competitive price.

This will ensure that it is fit for purpose, will be supported in the health environment and where new hardware is required, that it is a current product and is purchased at a competitive price.

The ACI and the eHealth NSW Conferencing Services Support Team perform horizon scanning for the latest technology and pricing across multiple suppliers to ensure that the hardware meets the needs of the workforce.

Telehealth Managers and ICT Department Managers are encouraged to contact eHealth NSW Conferencing Support Team to assist with identification of hardware, purchasing and installation of all video conferencing equipment.







The following hardware is commonly located in NSW Health facilities and mobile workspaces that supports the implementation of telehealth services:



- cameras (webcam, wall mounted, ceiling mounted)
- microphones
- speakers
- LCD screens (including dual monitor arrangements)
- desktop computer/tablet/iPad/laptop
- portable wireless trolley
- Workstation on wheels (WoW)/ computer on wheels (CoW)
- VC trolley/cart
- mobile phone
- hearing induction coils
- headset
- specialist mobile kits and a range of clinical peripherals are available that can be used in telehealth consultations. These include but are not limited to: endoscope, ultrasound, intra-oral cameras, exam glasses, probes, blood pressure, pulse/oximeter and digital stethoscopes.

Video conference equipment overview

The equipment identified in Table 5 may vary across organisations and from site to site. There is a commitment to develop detailed standards to support the system infrastructure to become standardised across the state. This will support clinicians and patients to become more familiar and confident with the technology. Many facilities already have hardware available to them and in some cases this hardware can be upgraded to be telehealth ready. This results in one device with multiple uses.

Table 5. Telehealth video conference equipment overview

Equipment type	Description
Standard mobile trolley 	Mobile video conference system with quality camera and features such as zooming in/out, voice tracking etc. Small footprint trolley with the option of 32 or 43-inch TV.
Clinical mobile trolley 	This may be an enhanced WoW/CoW to include video conferencing software, quality camera and features such as zooming in/out, voice tracking, etc. It is a small footprint battery powered trolley with screen.
Desktop video conference 	All-in-one video conferencing unit with life-size video on a 23-inch touch screen. A second monitor can be attached to enable access to health information systems (e.g. eMR) whilst a video conference is in progress.
Personal computer 	Laptops provide mobility with built-in webcam and remote access to health systems and video conferencing capability.
iPad/Tablet 	Tablets provide mobility with remote access to health systems and video conferencing capability. Can use both the forward and rear facing camera. The mobility allows for use within and outside of health facilities providing greater accessibility and support to our patients where ever they may be.
Mobile phones 	Mobile smart phones are widely accessible by clinicians, patient, carers and other providers. These devices (android or apple IOS) can support web-based applications including video conferencing as well as image capture, videos or clinical information transfer via clinical apps.

Equipment type	Description
<p>Ceiling mounted cameras supporting video capability</p> 	<p>Specialised install with clinical and technical features including zoom, pan, tilt cameras to provide the best angles and vision of the patient during an emergency. These have the ability to connect additional medical devices for live vision. These are installed solutions in Emergency (Resus and Paediatric Beds), ICU and Neonatal Units. Similar devices can also be installed in ambulances and retrieval vehicles.</p>
<p>Room based video conferencing – wall mounted</p> 	<p>A video conference system is installed on the NSW Health Network. Often these rooms are shared spaces and can be used for patient/family consultations, and are suitable for medium to large number of participants (based on the room size at each location). The room based systems are interoperable with NSW endorsed platforms.</p> <p>Option of single or dual TV setup with size options from 32–70 inches. These systems vary across the health system.</p>

Platforms and software

eHealth NSW has core responsibility to provide ICT solutions across the public health system to enable excellent patient care. These solutions need to be clinically fit for purpose and determined by clinicians. eHealth NSW aims to ensure that technology is interoperable within NSW Health infrastructure, user friendly, robust, private, secure and reliable.

NSW Health organisations have access to a variety of unified communication systems that support telehealth. Our needs have changed, with an increasing need for staff and patients to be able to connect across the state and across jurisdictional borders to support patient care. This has led the NSW Health system to realise the benefits of statewide standardisation and the impact that consistency has not only for our workforce but for the ease of access for our patients.

It is important that NSW Health employees understand that accepting non-endorsed platforms, software and hardware may compromise the system and the organisation, placing themselves and their patients at risk. This practice is not supported in NSW Health and Telehealth Managers will assist to ensure the care can be provided using safe and effective tools.

When determining the platform and software to support a clinical service, the clinical requirements should be identified and matched to the functions or the capabilities of the platform/s available.

Telehealth Managers work closely with the ACI and eHealth NSW and are able to provide advice where new capabilities are identified by clinical teams. Together we are horizon scanning and collaborating to support identification of innovative solutions that are fit for purpose.

It is recommended that clinicians have a high level of confidence before using video conferencing platforms for clinical use. This may be enhanced if clinicians are using the technology for administrative and educational purposes in partnership with their local support. Having familiarity of systems will provide a high level of confidence that will support the clinician to be solution focused and to be able to calmly put in place a backup plan such as having a phone consult, rescheduling the appointment, or having other alternatives in place in the event of a technical difficulty that prevents an adequate telehealth consultation.

There are organisational, funding and implementation factors that need to be addressed for successful implementation and sustainability of telehealth services. Many of these considerations are already in place for face-to-face services and do not need to be adjusted.

Every patient's circumstances are different, as are their health needs and journey. If the clinician determines that the clinical service is appropriate for telehealth, the option to access care via telehealth should be explained to the patient and demonstrated to show them that the care provided will not be diminished in any way.

Depending on the patient's health needs, there may be a combination of modalities provided throughout the patient's health journey that may comprise face-to-face, video conference, telephone, remote monitoring and store and forward modalities. A patient should also be advised that they can change their choice of modality at any time without fear of loss of service.

Service considerations

Carer engagement

Telehealth is an enabling tool to support carers to be included and engaged in the care of a patient regardless of their geographical location.

The technology allows carers to be engaged at any point of the patient's healthcare journey (emergency, admitted and non-admitted) and also supports both the carer and the patient to be in different locations (e.g. the patient is physically with clinician and the carer at his/her workplace, or the patient and carer both virtually attend an appointment from two separate locations).

The use of telehealth provides multiple benefits, including greater flexibility for the carer to manage competing demands alongside the multiple other responsibilities that they may be juggling – saving them time, money and stress.

It is important to implement local strategies to support carer awareness and promote the use of telehealth. This may be as simple as amending existing patient resources or working with the communications team to showcase a carer story where telehealth was used to support engagement and the healthcare journey.

As a NSW Health priority area, every LHD and SHN has a NSW Health Family Carer Program Manager to support increased engagement and recognition of carers. See the [NSW Health website](#) for information.

Clinical documentation

It is a clinical requirement that all clinical activity is documented in the patient's medical record, regardless of the modality of care. This should also include details of all participants providing advice or participating in a telephone or video consultation.

For telehealth services, it is essential that documentation in the medical records is completed by clinicians at both ends of the telehealth consultation (if there are clinicians at both ends) in accordance with medico-legal requirements.

Where the clinical service is provided by another LHD/SHN, it is expected that the patient is registered and a patient record is established. This is particularly important to ensure activity is recorded at both sites and the service activity can be counted and costed accordingly. If the patient is not registered in the external organisation, the treating clinician should provide timely clinical notes to be uploaded in the patient's record. eHealth NSW is in the beginning stages of supporting a single digital patient record for NSW. When this is implemented, the second registration process will not be required as the patient's record will be accessible across all LHDs and SHNs in NSW.

Where there is only a treating clinician and no one is with the patient at the time of consultation, it is the responsibility of that clinician to enter the notes into the patient's medical record and to notify other relevant providers of the outcome of the consult.

Documentation timelines and follow up for telehealth consults are consistent with existing clinical processes for face-to-face consultations. It is important to ensure that there is clear communication for the responsibility of the referral process post consult including communicating the responsibility of actions to provide the care plan.

Patient information

The information required is determined by the clinician/s and is reflective of clinical standards, local guidelines and policies. Rarely does this vary from what would be required for a face-to-face appointment. These may include, but are not limited to, patient referral, test results, diagnostic images, lab reports, discharge summary and care plan.

Where the documentation is not kept within the patient's eMR, the patient may need to provide this in advance of the telehealth session. NSW Health staff may need to offer assistance to the patient to ensure that the patient information is transferred securely (e.g. transferred through a secure messaging service such as Argus, internal email to internal email or scanned and uploaded into the patient's record by a NSW Health employee with appropriate access to patient records).

If using a video conferencing platform, you will have the capability to share your screen, which will enable you to share the client's medical record and other files stored on the network or device being used. This may include previous episodes of care, electronic and paper charts, diagnostic images and lab reports. Where another clinician external to the patient is reviewing the patient's record via video conferencing, the clinician sharing the medical record should document who they are sharing the medical record with and for what purpose.

Consent

In line with expectations for face-to-face services, the health provider is responsible for explaining their options and the range of modalities available to support their care requirements. The patient retains the right to identify the best option for them at the time and to also have the opportunity to vary this throughout the patient journey as their needs change. Patients must be informed that regardless of the modality of care chosen that access to the service will not be effected if they change their mind on a modality.

Written consent is only required if consent is normally required for face-to-face sessions or for research, in this instance an ethics application will determine and provide approved documentation.

If the need to use telehealth arises in a situation where the patient is incapacitated, the patient and their carer should be advised of how telehealth supported their care and who was involved in the consultation.

Consumer enablement

Consumer enablement is the extent to which people understand their health conditions and have the confidence, skills, knowledge and ability to manage their health and wellbeing. Increasing consumer enablement can help people actively manage their own health, remain in good health and avoid hospitalisations.

A guide to consumer enablement has been developed by the ACI to support clinical services to be more conscious of consumer needs and how clinical services can adapt to provide consumer enablement as a part of the delivery of patient-centred care. The guide can be accessed at aci.health.nsw.gov.au/resources/chronic-care/consumer-enablement/guide

Complaints

As per normal service delivery, patients accessing telehealth services should be advised on the process to make a complaint if they are not happy with their care. This is in line with the LHD or SHN and should be reported into the NSW Incident Management System (IIMS).

There is no special complaint process specific to the delivery of telehealth services.

Cross-boundary services

In supporting patient needs and clinical pathways, NSW Health organisations and services can occur across NSW Health facilities and state jurisdictions. Regardless of the modality to support the service delivery, it is recommended that a Service Level Agreement (SLA) or a Memorandum of Understanding (MOU) is in place that outlines the details of the service requirements. Considerations for telehealth services in regards to technical interoperability, especially for across state jurisdictions should be included and escalation pathways to assist when issues present. For more details on your local agreements contact your Telehealth Manager or other relevant contact (general manager) in your LHD/SHN.

The eHealth NSW Video Conferencing Support Team has strong relationships with other state ICT teams and will assist to ensure a quality connection. They should be consulted prior to the clinical consult and can be contacted on 1300 679 727 or email: ehnsw-videoconf@health.nsw.gov.au

Culturally responsive practice

Regardless of the modality of service delivery, patients whose health professionals are culturally responsive are more confident and motivated to access the health services they need. LHDs and SHNs will have a local policy and strategy to support culturally responsive practice and this should be included in the clinical redesign of models of care to include telehealth.

People's cultural background can affect the way they communicate, make decisions and manage their health. As a health professional, you need to understand how culture impacts people's understanding of health, wellbeing, disease and illness.

Cultural responsiveness is important for all social and cultural groups, including:

- Aboriginal and Torres Strait Islander peoples
- people from culturally and linguistically diverse backgrounds
- refugees or displaced migrants
- people at all life stages, including end of life
- people with different abilities, including intellectual and cognitive disabilities
- lesbian, gay, bisexual, transgender/transsexual, intersex and queer/questioning (LGBTIQ) people
- people from priority populations and subcultures, such as the deaf and vision-impaired community.

In regards to telehealth modalities, it is important to have an awareness that not all capabilities of the technology will be culturally appropriate and may be individualised to the patient. When considering if a telehealth modality is culturally appropriate you may speak with cultural advisers or a liaison officer to better understand if any specific adjustments are required. Always discuss the features of the technology with the patient and ask them if they would like to receive their care in this way. The patient may identify modifications required to make it culturally appropriate (e.g. may not want their face photographed).

For more information on culturally responsive practice see the [Consumer Enablement Guide](#).

Credentialing

Regardless of the position held, the provision of healthcare is related to individuals' credentials and the clinical scope of practice, the telehealth modality does not require additional credentialing requirements.

LHDs and SHNs have a responsibility to ensure all appointed clinicians provide services within the scope of their education, training and skills, and within the specific health facility's service delivery capacity. The *Credentialing and delineating clinical privileges for senior medical practitioners and senior dentists policy directive PD 2019_011* outlines the process to the skills of a senior medical practitioner or senior dentist with the needs of a healthcare facility, to ensure that the appropriate senior clinicians are providing appropriate services in the appropriate facilities.

This policy directive applies to visiting practitioners, staff specialists, clinical academics and senior dentists and provides clarity about credentialing requirements when providing clinical advice and clinical management of patients across LHD and SHN boundaries.

Generally cross-boundary pathways exist and with NSW Health credentialing processes being standardised, credentialing documentation can be shared and accepted across LHDs and SHNs. The local Director of Medical Services or the medical administration team will be able to provide advice in regards to the local adoption of this process.

The Australian Health Practitioner Regulation Agency (AHPRA) is the organisation responsible for the implementation of the National Registration and Accreditation Scheme across Australia.

It is expected that all NSW Health employees maintain registration as a condition of their employment. When establishing services with organisations outside of NSW Health, including with private providers, the registration status of all clinicians involved should be provided to the organisation commissioning the service. This requirement should also be included in formal service documents such as an SLA or an MOU. AHPRA registration can be confirmed quickly on the website at <https://www.ahpra.gov.au>.

Education and training

Education and training for all staff to use the technology with confidence will only support the increased implementation and uptake of telehealth services. Locally developed resources, statewide developed resources and modules are available and continue to be developed to reflect clinical service and patient requirements.

It is recommended that you contact your local Telehealth Manager or Lead to find out more information.

Integrated care

Integrated care is a way of working that enables care to be provided in a way that reflects the whole of a person's health needs, from prevention through to end of life, across both physical and mental health, and in partnership with the individual, their carers and family.

The use of telehealth is the perfect tool to support this way of working and engage with other providers (internal and external to NSW Health) who are supporting your patient.

At the point of care (emergency, admitted or non-admitted services) video conferencing technology can support multiple participants to be in the one consultation, bringing the physical and virtual participants together.

Legal considerations

Many clinicians raise concerns in regards to legal issues when implementing telehealth services. Generally these concerns are easily resolved and in most circumstances are not handled differently to face-to-face services.

See the list of frequently asked questions in the resource section of this document. You can also discuss your concerns with your Telehealth Manager or email the ACI Telehealth Manager at aci-telehealth@health.nsw.gov.au who can seek legal advice for your concern on your behalf.

Patient resources

Existing patient resources should be updated to include the alternative modalities that are available.

Additional resources to outline the alternative service modalities and how to access these should be developed for patients. These may include:

- what is telehealth?
- how will telehealth support care?
- how to connect to the care team.

Statewide resources are currently under development and will be available for all services to use.

All patients will have a different network of support and varying degrees of familiarity and confidence with the technology. It is good practice to include the ability to support the patient to test the technology prior to the appointment, especially if they are going to be using their own device in a private location such as their home or workplace. This could occur at a face-to-face appointment or at a prearranged time ensuring that the patient has access to the device that will be used and identified support people (if required).

This may not need to be completed by the clinician providing the service. This can be the task of an administrative or clinical support officer within the clinical service or the local telehealth support unit may provide this service.

It is always a good opportunity to promote service delivery in any patient newsletters, social media local health website. Involving your local Telehealth Manager / Coordinator or other key positions including the Communications Team may provide you with the support to develop patient resources and to promote the service.

Privacy, confidentiality and security

Every clinical relationship is based on respect for privacy and confidentiality. Individuals accessing health services through the use of information and communication technologies are entitled to expect their privacy will be guaranteed to the same standard as applies to face-to-face consultations.

Use and disclosure of personal health information by NSW Health agencies must comply with the requirements of the *Health Records and Information Privacy Act 2002 (NSW)*. These requirements apply regardless of whether services are provided by telehealth or face-to-face consultations. The Act requires health services to comply with 15 Health Privacy Principles, including principles relating to collection, use and disclosure of health information and the transfer of health information outside of NSW. Particular care should be taken to ensure that provision of telehealth services to persons outside of NSW complies with relevant privacy requirements.

If a health service proposes to introduce a new telehealth initiative it may be helpful to conduct a privacy impact assessment prior to its commencement. NSW Health has developed a privacy impact self-assessment tool, which is designed to assist staff to determine if a comprehensive assessment needs to be completed. The Privacy and Security Assurance Framework (PSAF) provides detailed advice in regards to an assessment on privacy and security requirements when using technology. The PSAF is not required for all telehealth modalities, e.g. you are not required to complete the PSAF process when using video conferencing as the NSW Health approved platform has already gone through this process however the development of apps will require PSAF approval.

The privacy impact self-assessment tool is available on the [Healthshare/eHealth intranet](#).

Some procedures clinicians should use to manage risks to privacy and confidentiality are outlined below:

- Informing the patient at the commencement of the consultation that the patient's confidentiality will be respected, that all communications are secure, and that the session will not be recorded. In most cases, the provider should explain to the patient that although the telehealth session will not be recorded it will nonetheless still be documented through taking clinical notes, which will be entered into the patient's medical record (as happens in face-to-face consultations).
- Particularly in the case of new patients, ensuring patients have received a copy of the [NSW Health Privacy Leaflet for Patients](#). This can be emailed or posted to patients. It includes information about how health information may be used and disclosed by NSW Health and how to make a privacy complaint.
- If there is a valid reason for recording a consultation, the provider must receive the written consent of the patient or the patient's authorised representative prior to the consultation, and ensure that the consent and the recording are stored securely.
- Ensuring procedures are in place to document all people who have access to confidential data and ensure that they have signed confidentiality agreements. Ensure confidentiality agreements are signed by employees, contractors or consultants who may have access to confidential telehealth information. For examples of confidentiality agreements, see the [NSW Health Privacy Manual for Health Information](#).
- Having dedicated time for scheduling regular telehealth interventions.
- Having a system to ensure that there are no interruptions at the clinician/s and patient ends of the consultation. This includes alerting or erecting signage to alert other staff that a telehealth consultation is in progress.
- Ensuring videoconferencing facilities are private and sound-proof. Ensuring patients participating in the telehealth consultation from home do so in a quiet room where they will not be disturbed.
- When choosing telehealth hardware and software for telehealth, considering the security features of the telehealth system to ensure the technology used facilitates privacy and confidentiality. All telehealth communications should have strong message encryption.
 - It is important to use only the video conferencing platforms that are supported by eHealth and your organisation. Using approved platforms ensures that you are providing a secure and private environment where a patient's privacy can be assured. Unsecure platforms that are discouraged for clinical and corporate uses include but are not limited to personal skype, FaceTime, WhatsApp, Snap Chat, Messenger etc.
 - For instances whereby a store and forward method is used, consideration must be given to methods of transmission and storage of images to maintain privacy, security and confidentiality (see Transfer of clinical information).

- Maintaining appropriate secure storage of all reports provided for, or generated from, the telehealth consultation and ensuring compliance with NSW Government General Retention and Disposal Authority policy (GDA17; 2011).

Please consult with your Telehealth Manager/Local IT on the most suitable technology and software to ensure your telehealth consultations meet relevant privacy and data security requirements including the *NSW Health Electronic Information Security Policy (PD2013_33)*, *Photo and Video Imaging in Cases of Suspected Child Sexual Abuse, Physical Abuse and Neglect (PD2015_047)* and the *NSW Health Privacy Manual for Health Information*.

If you have questions regarding the application of the manual, please contact the Privacy Contact Officer in your health service.

Recording

Recording a telehealth session is not standard practice.

With technological advancements, health care providers, patients and other participants may have devices that have the functionality to record telehealth sessions eg most mobile phones have this feature.

The primary purpose of a telehealth service is the provision of patient care. However, in exceptional cases, there may be a justification for the provider to record a telehealth session for use for a secondary purpose. Secondary purposes that may be justified include educational and training purposes, research purposes or as a part of an evaluation of the telehealth service.

In the event of a recording, it is expected that prior to the recording the patient should be consulted and advised on how this material will be recorded, used and stored. Consent should be formalised by the patient or the patient's authorised representative as per the local organisational protocols. The patient's authorised representative is usually either the patient's spouse, parent, carer, a legal guardian or an enduring guardian appointed by the patient. An explanation of the legal meaning of the term 'authorised representative' is provided in the *NSW Health Privacy Manual for Health Information*. If you have a question regarding who is the 'authorised representative' of a particular patient please contact the Privacy Contact Officer in your health service.

The consent should be documented in the patient's medical record and where required written consent received should be stored appropriately, uploaded into the patient's record or kept electronically with the recording. It is good practice to invite the patient to view the content of a recorded session prior to using the recording for the secondary purpose. Patients have the right to decline or withdraw their consent at any time. Where feasible, identifying information should be removed as part of the editing process, e.g. ensure the patient's name is not visible on tags, screens or documents appearing in the recording, and that personal information such as date of birth, address and marital status are not disclosed.

Recording sessions for research purposes should be included in the research project's ethics approval application. Formal documentation is required for research projects and the patient should be provided with information about the research project along with a consent form for the patient to sign.

The information sheet must include the purpose of recording the session, how it will be recorded and how it will be stored and managed.

Patients should be advised that they should not attempt to record a telehealth session without permission. In some circumstances, a patient may request that she or he be permitted to record a session or request that the provider make a record of a session available to the patient or a family member. Each such request should be assessed according to the circumstances of the case.

Transfer of clinical information

The secure transfer of clinical information is important to maintain the patient's privacy and confidential information.

When telehealth services are being provided it is important that the clinician has all of the patient information required. Please contact your LHD/SHN Privacy Contact Officer or a local Health Information Manager for advice and direction about local policies and protocols regarding the transfer of clinical information.

For clinicians external to the LHD or SHN this information will need to be sent via a secure messenger or file transfer service. [Accellion Secure File Transfer](#) provides a means for staff to send and receive documents and files over the internet or network in a secure manner.

For further information, please contact the Privacy Contact Officer in your health service.

Evaluation of telehealth services

New evidence around the use of telehealth is always emerging. It is good practice when engaging in clinical redesign to implement a telehealth model of care or when implementing new technology to include evaluation strategies. Dependant on your resources, the evaluation can be locally led or may engage with NSW Health pillar agencies, university partners or external agencies.

It is expected that evaluation of clinical care should be evaluated in the same way regardless of the modality of care. In some instances, you may need to add in questions to capture modalities offered or to capture a mix of modalities provided to support the patient's journey. This will also support to identify if the use of telehealth modalities has impacted on the service access or care in comparison to face-to-face services.

It is recommended that when planning and implementation telehealth services or at any time when new platforms, software or hardware are introduced that the performance of the technology is monitored. This will ensure that the technology is meeting the clinical requirements and allow adjustments to be made to ensure that the capability is met and both the patient and clinician experience is positive.

There is an interest to develop statewide standardised measures that would support NSW Health to understand the impact of telehealth service delivery from a state perspective. These measures may include but will not be limited to time saved, kilometres saved, nights away from home saved, days away from work saved, days away from school, number of retrieval services avoided and reduction of length of stay/bed days.

Patient reported measures

The ACI is leading the implementation of the Patient Reported Measures (PRMs) program. The program aims to enable patients to provide direct, timely feedback about their health related outcomes and experiences to drive improvement and integration of health care across NSW.

The PRMs program endeavours to support patients and clinicians, and add value to their interactions. The program is divided into two sections, Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs):

- PROMs are used to help assess and follow up a patient's clinical progress.
- PREMs help to assess the patient's experience of the care received.

The development and implementation of the Patient Reported Measures (PRMs) Program was identified as a key enabler in the [NSW Health Integrated Care Strategy](#) and [Leading Better Value Care](#) to support consumers, clinicians, LHDs, SHNs, PHNs and primary healthcare.

For more information on the PRMs program, see aci.health.nsw.gov.au/make-it-happen/prms

A number of services have implemented PRMs or patient satisfaction surveys. If you would like to implement a patient survey raise this with your local Telehealth Manager to understand current state and to access existing surveys.

Financial considerations

Activity reporting: Counting and costing of telehealth services

There is not a widespread understanding of the importance of counting and costing telehealth activity, and there continues to be confusion in regard to the funding of telehealth services. It is essential to understand the relationship between the classifying, counting, costing and pricing for telehealth services.

It is important to note that telehealth services delivered in NSW Health facilities are funded, and there are multiple funding sources that support this activity.

To better support, the understanding and increased reporting of telehealth activity, specific resources have been developed. Following LHD and SHN consultation, these resources provide overarching recommendations, guidance and direct advice to ensure that telehealth activity is reflective of current telehealth service models and responsive to future innovative care.

The following comprehensive reports assist clinicians, service managers, telehealth managers and employees working in performance and finance roles to enhance the understanding and accurate activity reporting to increase the uptake of telehealth across NSW Health services:

- NSW Telehealth – Counting and Reporting Master Guidance
- NSW Activity Based Management and Activity Based Funding Compendium
- NSW Non-Admitted Patient Data Collection: Reporting requirements for service provided from 1 July 2019.

It is important to engage with your local Telehealth Manager or Performance Management/Finance Team to identify the funding model and current ABF telehealth incentives that will apply to your model of care. They will ensure that you are reporting your activity correctly and accessing the appropriate funding model for your service (e.g. NWAU or Medicare Benefits Scheme). They will also support the set up of processes to support applicable billing where services are revenue based.

For further Activity Based Management information, email ActivityBasedManagement@health.nsw.gov.au.

For collecting and reporting information, contact MOH-DataGovernance@health.nsw.gov.au

Cost savings

We all are conscious of the increasing demand for our services and the financial challenges that this presents. Metropolitan, regional and rural services are changing the conversation from funding and revenue, to include the identification of cost savings through the integration of telehealth.

The following real life examples are relevant in the hospital setting and also have significant impact on patient experiences and outcomes. These opportunities should be considered where it is clinically appropriate.

As the use of telehealth increases, more opportunities for cost have been highlighted through service redesign and local quality improvement processes. The following list is not exhaustive and you are encouraged to speak with your direct manager and telehealth contact to explore innovative ideas to support clinical workflow and patient experiences and outcomes.

Reduced length of stay

Patients can be discharged and monitored from home. All telehealth modalities are useful to monitor patients at home depending on the clinical circumstances will depend on which modality is clinically appropriate. eg using video conferencing or store and forward can be used to check on a patients wound or remote monitoring equipment to capture patient vitals that can alert deterioration.

Patients may receive access to specialist consults from their bedside rather than waiting for a bed in another hospital, waiting for the specialist to return to the hospital or moving the patient to another facility. It is preferable to use video conferencing to support this initiative so the specialist can view the patient vitals and speak with the patient. This may remove the need for patient transport which includes a driver, vehicle and a nurse to accompany the patient.

Additional participants such as a carer or the patients GP can be easily included in these consultations supporting the transition of care.

Time efficiency

Across all organisations the opportunity and requirement to participate in training, education, mentoring, clinical supervision and organisational meetings. With some additional planning and training, these can be completed with ease and result in greater efficiency and significant cost savings. It is preferable to use video conferencing over telephone to promote participant engagement and connectedness. It is important for the whole system to lead by example and when not offered you should enquire about the possibility, that often starts the conversation.

More common in metropolitan organisations, staff can frequently move between facilities for clinical needs. With the use of telehealth this can be alleviated, thus impacting on rosters and unproductive use of resources, especially clinical time.

Can support specialists who are 'on call' to provide clinical assessment and consultation from their home before determining next steps.

Service availability

Having a virtual workforce provides opportunities to maintain continuity of services. This can provide cost savings as employees may be remotely located reducing the need to enter into expensive private contracts. This can also be used as a strategy to support service continuity whilst vacancies are being recruited. You may engage with other LHDs or SHNs to provide a virtual workforce or temporarily employ a virtual provider to maintain the service.

Workforce

The integration of telehealth provides lots of opportunities to provide and enhance service delivery. This in turn provides greater choice, opportunity, diversity and flexibility that can be very attractive to prospective employees and enhance retention of the existing workforce.

As the integration of telehealth becomes normal business, the technology will continue to evolve and there inevitably will be much greater need for a virtualised workforce. With a virtual workforce, acceptance of non-traditional working environments will be required.

There are already many innovative models of care in place that inadvertently provide effective workforce strategies. We encourage clinicians to continue to redesign models of care and to be innovative in thinking about how a virtualised workforce may assist to keep a skilled, happy workforce meet the clinical service needs of your organisation.

Resources

Key documents

Strategic Review of Telehealth in NSW: Final Report 2015 Nous Group

<https://www.health.nsw.gov.au/telehealth/Documents/strategic-review-of-telehealth-in-NSW.PDF>

NSW Telehealth Framework and Implementation Strategy 2016-2021

<https://www.health.nsw.gov.au/telehealth/Publications/NSW-telehealth-framework.pdf>

The Telehealth Strategic Advisory Group (TSAG)

This group defines the work plan for telehealth within NSW.

<https://www.aci.health.nsw.gov.au/make-it-happen/telehealth/telehealth-strategic-advisory-group> (Tab 4)

Telehealth Community of Practice – Telehealth Capability Interest Group

<https://www.aci.health.nsw.gov.au/make-it-happen/telehealth/telehealth-capability-interest-group>

Consumer Enablement Guide

<https://www.aci.health.nsw.gov.au/networks/chronic-care/consumer-enablement>

Centre for Healthcare Redesign

<https://www.aci.health.nsw.gov.au/make-it-happen/centre-for-healthcare-redesign>

Privacy Manual for Health Information

<https://www.health.nsw.gov.au/policies/manuals/Documents/privacy-manual-for-health-information.pdf>

NSW Health Privacy Contact Officers

<https://www.health.nsw.gov.au/patients/privacy/Pages/privacy-contact.aspx>

Privacy Assurance Framework.

<http://ehnsw.sharepoint.nswhealth.net/teams/IS-Security/PSAF/Pages/default.aspx>

Development of apps

Workshop videos

https://www.youtube.com/playlist?list=PLbw1KgO1-UrGgfUP9su_VRfPAkO9SaWBT

Presentations

https://www.dropbox.com/sh/2ib8jfr94w9o5dy/AAA1kw9gg6EPZOHL_SNXSSuka?dl=0

ACI Innovation Exchange

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/police-ambulance-early-access-to-mental-health>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/v-dots>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/unlocking-care>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/improving-the-critical-care-advisory-service>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/collaborative-care-outreach>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/confident-and-connected-at-home-on-haemodialysis>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/enhancing-remote-physiotherapy-services>

<https://www.aci.health.nsw.gov.au/innovation-exchange/projects/transforming-acute-stroke-care>

Telehealth videos

Pain management

<https://vimeo.com/249756219>

Genetics

<http://www.genetics.edu.au/health-professionals/online-learning/tele-health/videos/tele-health-video>

V-DOTS

<https://www.youtube.com/watch?v=GGgXEumuqV8&feature=youtu.be>

NETS Ambulance

<https://vimeo.com/275759689>

High risk foot clinic

https://www.youtube.com/watch?v=NuQF_3TaLZw&feature=youtu.be

Patient flow and critical care advisory service

<https://www.youtube.com/watch?v=pK5I44s66YM>

Cancer services

<https://drive.google.com/file/d/1W69MHubhmx5vkjg3pNIMagcLo3lh1Q7B/view>

Patient story

<https://www.youtube.com/watch?v=yfPHLlinHM>

St Vincent's Hospital Network

<https://www.youtube.com/watch?v=7O8yXgrx93g>

Virtual reality in the paediatric environment

<https://www.youtube.com/watch?v=3Kg7-Ww77qc>

Nepean Blue Mountains LHD telehealth Initiatives

<https://www.nbmlhd.health.nsw.gov.au/telehealth-and-technology-centre/telehealth>

Patient resources

Preparing for a telehealth appointment

https://wnswlhd.health.nsw.gov.au/Downloads/Telehealth_How-To-Clients.pdf

Telehealth outpatient fact sheet

<https://www.nbmlhd.health.nsw.gov.au/ArticleDocuments/624/PatientFactSheet.pdf.aspx>

Western NSW LHD: What is telehealth?

https://www.youtube.com/watch?time_continue=3&v=YPGmJ55e9gQ

Hunter New England LHD

https://www.youtube.com/watch?time_continue=1&v=Zf-773FWzvw

2018 Innovation series for the development of apps

Workshop videos

https://www.youtube.com/playlist?list=PLbw1KgO1-UrGgfUP9su_VRfPAkO9SaWBT

Presentations

https://www.dropbox.com/sh/2ib8jfr94w9o5dy/AAA1kw9gg6EPZOhl_SNXSSuka?dl=0

Frequently asked questions

When can telehealth be used?

Telehealth can be used and should be offered to the patient whenever it is clinically appropriate and the patient is accepting to receive their care via a telehealth modality. This can occur across all NSW Health settings emergency, admitted and non-admitted clinics.

Even when the patient is attending in person, telehealth should be offered to support carers to be involved in the care of the patient and also provide the opportunity to integrate care with other providers involved in the patient's care.

Consent

Do you need to gain/keep formal consent from a patient when offering or providing telehealth services?

Patient consent to medical treatment can be in writing, given verbally, or implied by the patient's participation or acquiescence to treatment (for example, holding out their arm to receive a needle).

You should be able to infer a patient's consent to a consultation (whether face-to-face or by video conferring) based on their participation in the consultation. No special consent is required to offer or provide services via telehealth modalities.

However, ideally, patients should be offered the option of a face to face or telehealth consult, and should be informed of any limitations for either approach.

For research purposes, ethics applications will require approval of participation and may also include the recording of clinical sessions. This documentation will need to be kept and the process requirements will be included as a part of the ethics approval process.

Recording

What permissions are necessary i.e. written/oral from the patient/all participants to record any telehealth sessions be they clinical or administrative?

Patients or staff should not be recorded without their knowledge and consent.

If you are seeking permission, a discussion should occur with the patient prior to event to ensure that the patient has been provided sufficient time to ask questions and consider the reasons and benefits to record the session. Information will need to be provided to the patient about the use, storage and management of the recording. This needs to be in line with existing NSW Health policies.

The recording can be provided to the patient.

If a consult is recorded, it would be enough to begin the recording by saying, 'This is being recorded – are you happy to proceed on that basis?', and include the response in the recording. Separate (additional) written consent would not be necessary. If the patient's agreement to being recorded is not itself recorded, the health professional should note (in the health record) that the patient provided consent before starting.

Patients should be aware that if they do not consent to a consult being recorded, that does not mean that no record will be kept. The health professional would still be obliged to keep a written record of the consultation in the health record.

When is it appropriate to record a session?

Recording a consult could be appropriate for many reasons, such as so it could be replayed for another health professional involved in the case of the patient, to document progress of a treatment plan, to manage risks, or for education and training. If a session is being recorded and the recording will be used for purposes not related to the care and treatment of the individual patient (i.e. for research or training) then written consent of the patient should be obtained for that use.

How do I get a session recorded?

Contact the Conference Services Team on 1300 679 727 to arrange recording.

Credentialing

What are the key things that should be included in an MOU/SLA between districts for telehealth services?

Telehealth is the modality of delivery, existing SLA and MOU templates that support clinical service delivery will apply.

Credentialing of service providers will occur as part of the normal processes. This ensures that providers are credentialed to provide the service within their scope of practice. The mode of delivery (face to face or via telehealth) does not require specific credentialing.

Some additional requirements should include technology implications and escalation processes if connection issues are experienced and inclusions to support a quality user experience at the clinician and patient end. The local Telehealth Manager will be able to provide advice on adjustments to support a quality telehealth service to be implemented.

What credentialing if any is needed for a clinician to provide telehealth?

No separate credentialing requirements are required to provide clinical services via telehealth.

What is classified as advice as opposed to providing clinical services across boundaries?

Providing advice is considered a normal expectation under the employment of NSW Health. This is discussed in detail in the *NSW Health Policy: Credentialing & Delineating Clinical Privileges for Senior Medical Practitioners & Senior Dentists PD: 2019_011*. This is not the clinical management of a patient and the primary provider maintains responsible for the patients care plan. Credentialing is not required for the provision of advice.

How are 'ad hoc' advice between practitioners defined? Does that mean if a telehealth clinic is created it is not ad hoc?

If advice is provided to a patient or another clinician as a once off scenario, or on an urgent basis, it might be reasonable in all the circumstances for the advice to be provided using the clinician's own device (for example). However, if a telehealth clinic is established to see patients with appointments and more structure, it would not be reasonable for this service to run without appropriate secure technology.

Providing advice to and from jurisdictions other than NSW

How does differing state laws/LHD policy impact telehealth consultations if the clinician is conducting the consult while physically located in another jurisdiction?

Registration

The National Law for the registration of medical practitioners means that registered practitioners can now legally practice in all jurisdictions in Australia.

See <https://www.medicalboard.gov.au/Codes-Guidelines-Policies/FAQ/Information-interjurisdictional-technology-consultations.aspx>

The Medical Board of Australia expects that medical practitioners:

- providing medical services to patients in Australia will be registered with the Board regardless of where the practitioner is located
- consider the appropriateness of a technology based consultation for each patient's circumstances
- comply with the requirements of the Health Practitioner Regulation National Law as in force in each state and territory (the National Law) and the Board's registration standards, codes and guidelines including the Professional Indemnity Insurance Registration Standard which requires that a medical practitioner is covered for all aspects of their medical practice
- who conduct technology based consultations with a patient who is outside Australia establish whether they are required to be registered by the medical regulator in that jurisdiction (for example, the General Medical Council for a patient in the United Kingdom)
- ensure that their patients are informed in relation to billing arrangements for consultations and whether the patient will be able to access Medicare or private health insurance rebates.

Conduct (misconduct)

Conduct complaints and investigations are managed in the jurisdiction in which the conduct in question occurred. Therefore a practitioner whose principal place of practice is in NSW who misconducts themselves when providing telehealth advice to a patient whilst at a conference in Melbourne would have that matter dealt with in Victoria. Medical Defence Organisations may have views as to whether they would assist a practitioner respond to a conduct issue in another jurisdiction.

Performance (impairment)

If a health practitioner has an incident being dealt with as a performance issue or a health issue, it would be managed in the jurisdiction of their principal place of practice.

Negligence claims

Patients can commence claims in the jurisdiction where the incident occurred or where they reside. There needs to be a connection between the claim and where it is filed. This means that if advice is provided outside NSW, patients may be able to choose which jurisdiction to bring their claim. Some jurisdictions are able to award higher amounts of compensation than others and this would be a consideration. Generally any claims against NSW Health health professionals should be filed in NSW Courts. This is so they can be managed by local lawyers according to NSW laws, thereby saving costs. The insurance cover would for claims in other jurisdictions would need to be investigated/considered.

Insurance

The existing insurance arrangements for NSW Health staff are as follows:

- All employee doctors including Level 1 Staff Specialists (including when treating private patients) and Level 2–5 Staff Specialists when treating public patients are covered by the legal liability section of the Treasury Managed Fund Statement of Cover (version 4.1.1) (TMF).
- Relevantly, sub-clause 4.1(a) of the TMF provides that the TMF covers all sums which the TMF Agency becomes legally liable to pay by way of compensation and damages in respect of claims, caused by an occurrence, in connection with the activities of that agency worldwide and happening during the period of cover. Sub-clause 4.1(c) extends this cover to an employee of a TMF Agency, subject to the exclusions in clause 4.3.
- Where such an employee is delivering services within the scope of their employment, acts reasonably in the circumstances and makes full and frank disclosure of all relevant circumstances, they will likely be covered by the liability section of the TMF, subject to the exclusions in clause 4.3.
- For Level 2–5 Staff Specialists exercising rights of private practice and who have entered into a contract of liability coverage for indemnity under the TMF, there is indemnity in respect of services provided to private rural and/or paediatric patients in or at public hospitals or as part of other services provided by the Public Health Organisation.

- For Visiting Medical Officers (VMOs), indemnity for particular services will depend on their specific contract of liability coverage. Note that the TMF will not cover any claim that does not fall within the terms of coverage set out in the contract of liability coverage between the LHD and the VMO.

The question of whether or not a service is within one's scope of employment (or specifically set out in the contract for VMOs) may depend on the local policies of the organisation. Currently, the *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW* and the *'NSW Health Telehealth Framework and Implementation Strategy 2016-2021* do not cover circumstances where patients access services using their own devices outside of Australia and unaccompanied. Where there is no documented or agreed protocol, there may be a risk that a service is not considered to be within a practitioner's scope of employment.

Outside Australia

People are increasingly accessing services on their personal devices remotely and unaccompanied, whilst outside Australia. We that in most cases the patient has a chronic condition, a management plan and regular scheduled appointments with a practitioner.

In general, there appears to be an unquantifiable legal risk in that a practitioner needs to ensure that providing services to a patient located in another country does not breach any legal requirements of that country, and the legislation of each country varies globally. For example, a practitioner may need to comply with the registration requirements of the medical regulator of the jurisdiction in which the patient is located before delivering medical services to the patient. Issues of liability and choice of law/jurisdiction may also arise.

The legal risks with providing services overseas are impossible to quantify and not recommended without a thorough review of such services and the incorporation of explicit advice about this in policy. This may include considering whether the Telehealth service is clinically necessary or whether there are alternative options, such as rescheduling the appointment or advising the patient to seek the advice of a local practitioner at their overseas location. It would also be advisable to develop a protocol where a preamble is used when a patient signs into a service, which states that the advice is provided to the patient on the understanding that they are in Australia and the patient must let the practitioner know if this is not the case.

Service provision and access

Can you refuse to provide a service if you don't think it is clinically appropriate to deliver by telehealth?

Yes. This will need to be explained to the patient, carers or other providers (if required). Generally, a practitioner should be satisfied that an examination or observation using a method such as a telehealth video conference can be carried out with sufficient skill and care so as to form a clinical opinion. The practitioner should be competent at communicating over the relevant medium (in this case, video conferencing) and using any remotely controlled devices involved, as well as understand the possible limitations of the telehealth process. Such limitations could include an inability to do a hands-on assessment where required, lack of appropriate technology or potential issues with the quality of images or audio and video links.

There may be alternatives in regards to who can provide support at the patient end to assist in ensuring that it is clinically appropriate.

Can a clinician identify participants not suitable for telehealth (e.g. dementia, disability)?

Patients should be assessed on a case-by-case basis and based on their functional capacity, rather than on their condition or diagnosis.

Where a patient is assessed as not having capacity it may still be possible for them to participate in a telehealth consultation with their parent/guardian/person responsible.

Can you provide telehealth appointments to people on holidays in Australia or abroad?

Technically, it is possible to provide service in this case, but the situation should determine the provision of service. Generally providing consultations under these circumstances is not recommended. A clinical decision is required to determine the need to continue the service which will take into account the service required and time away from home or possibility to transfer care to a local provider whilst away.

Providing advice in the event of an emergency or supporting continuity of care of a patient receiving treatment overseas would be considered appropriate and a part of normal expectations.

Can a clinical Medical Officer (MO) refuse to provide support services via video if the LHD has developed an appropriate model of care to use when there is no MO onsite?

This is an employment/code of conduct issue for the LHD to manage with staff.

Are there any special legal considerations regarding the use of telehealth following patient trauma (for instance, sexual assault)?

In these circumstances particular attention needs to be focused on ensuring appropriate consent is obtained. Ask your local team about legal requirements

The patient needs are a priority and this matter should be treated with greatest sensitivity. The patient may not wish to be transported to another facility to have assessment, so telehealth may support access this service close to home under the guidance of an experienced clinician.

Access to appropriate trained and qualified senior doctors to provide specialised assessment is paramount. Generally it is recommended to access a suitably qualified senior doctor (for instance, someone skilled to collect samples/evidence within the time required).

Is a misdiagnosis via telehealth any different to a misdiagnosis following a face-to-face appointment?

No. Clinicians have a duty of care to their patients regardless of whether they review in person or via a telehealth modality.

However, the precise nature of the duty owed to the patient might vary depending on the circumstances and whether advice is provided by video. Need to ensure you ask the right questions and give the right, or at least reasonable answers and are mindful of any impact the technology is having on your ability to do this.

There might be some increased risks, some decreased risks, and some new risks, as with any new service method.

Patient information

Do our NSW Health patient brochures need to be amended to include telehealth, or are they suitable regardless of modality?

Patient brochures have applicability regardless of the modality. There are no special requirements for services delivered by telehealth. Clinicians may need to consider how they provide these to the patient if their service does not include an initial face-to-face service. This may require emailing or sending by post to the patient or to the secondary service provider to provide at the time of service.

Medical documentation

Who needs to document in a telehealth consult?

All providers should document in the patient record. Where there are multiple providers in one LHD it is reasonable to review and note that you have reviewed the entry and add any further detail (as required).

It is expected that clinicians across LHD boundaries should register the patient and document in the patient record. Alternatively a patient documentation can be provided by the other LHD and uploaded in to the local file to support a clinical note.

This requirement will be removed when a single digital patient record is available across NSW Health however that is not expected to be available for a few years.

What are the implications of providing a consult via telehealth and accessing images that are not stored (but are used to inform the diagnosis)?

This is a risk for the facility and health professionals.

It would be difficult to later prove that the diagnosis or treatment was reasonable if it was based on an image or other record that was not kept.

Technology devices

What equipment does the patient need?

The equipment required by a patient will depend on the service, clinical need and the modality chosen to suit the patient needs. Most patients will have access to a phone, not all patients will have an appropriate device (smartphone, tablet) with a data plan that allows them to participate in video calls.

This also applied to personal devices, peripherals or other remote monitoring devices that may be used to support clinical care. Clinicians should not assume that patients have access to the required technology and should have a conversation about what the patient has access to, this may include a discussion about their personal devices or those that they can access through a carer, workplace or from another health facility or social care provider.

What equipment does the clinician need?

The equipment required by a clinician will be determined by the clinical requirement and the telehealth modality deemed suitable. NSW Health employees should use equipment that is fit for purpose. This will assure that the clinical information can be provided completely and that all participants will have a quality experience. There is a vast range of technology available to support clinical needs and the appropriate equipment should be identified by a clinician detailing their current clinical workflow that reflects best practice standards. The technology should be matched to support the clinical workflow not expected to be changed to fit the technology. A Telehealth Manager can assist to identify appropriate technology and should be a first point of contact to discuss your clinical needs.

Can I use earbuds in lieu of a headset?

It is not recommended to use earbuds as they generally do not provide the quality of sound to support a quality experience for all participants. It is preferred to use approved headset and speakers that provide high quality audio, reduce or cancel background noise and static.

Funding of clinical services

How does billing work for telehealth?

This is dependent on the service and is relevant to how we count and cost services in NSW. Discuss with your Service Manager, Telehealth Manager and finance team about if your service is block funded, ABF or Medicare billed. This will ensure that you receive the right advice and set up your clinic correctly.

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The development of this document was led by the ACI Telehealth Manager, Donna Parkes, and supported by the Telehealth Strategic Advisory Group and the ACI Executive.

Glossary

Term	Definition
ABF	Activity Based Funding
ACI	Agency for Clinical Innovation
Affiliated health organisations	Not-for-profit religious, charitable or other non-government organisations that provide health services and are recognised as part of the public health system under the Health Services Act 1997.
Bandwidth	A measure of the capacity of an electronic transmission medium (ie a communications channel) to transmit data per unit of time – the higher the bandwidth, the more data/ information can be transmitted.
Broadband	Telecommunication that provides multiple channels of data over a single communications medium using frequency multiplexing- the term can refer more generically to a higher bandwidth that will support real-time, full motion audio and videoconferencing.
CALD	Culturally and linguistically diverse
Carer	Carers are individuals who provide unpaid, informal care and support to a family member or friend who has a disability, mental illness, drug or alcohol dependency, chronic condition, terminal illness or who is frail.
CIO	Clinical information officer
Connectivity	The ability of systems to interact, among the various operating systems on local, regional, national, and ultimately, international scales.
Desktop video conference	The ability to engage in a video conference, using high definition face-to-face communications from a personal workstation.
Direct clinical care	Care that is provided between provider/s and the patient and carer/s.
Electronic Health Record (eHR)	A longitudinal collection of personal health information concerning a single individual, entered or accepted by healthcare providers, and stored electronically. The information is organised primarily to support continuing, efficient and quality health care and is stored and transmitted securely. The EHR contains information which is a) retrospective: an historical view of health status and interventions; b) concurrent: a now view of health status and active interventions; and c) prospective: a future view of planned health activities and interventions.
Electronic Medical Record (eMR)	The eMR is a single database where patient details are entered once and then become accessible to all treating clinicians, with authorised access, anywhere in the hospital. Information gathered about the patient from many hospital service departments can guide clinical decisions through rules and alerts brought to the attention of clinicians.
Encryption	A security feature that ensures that only the parties who are supposed to be participating in a video conference or data transfer are able to do so.
Firewall	A hardware or software based system that filters network traffic based on a set of rules. Simple firewalls normally block access to specific ports.
GP	General practitioner

Sources: Blynault, I and Crane, M. Australian Telehealth Glossary of Terms. University of Queensland, Queensland Health; 1999.

Health Support Services NSW Health. What is the eMR? [Internet]. 2014 (cited 2014 Sept 4). Available from: http://nswhealth.moodle.com.au/DOH_HSS/eMR/wbt/index.php/home

Term	Definition
ICT	Information communication technology
Indirect clinical care	Clinical discussions between providers/carers where the patient is not present.
Internet Protocol (IP)	The basic language when referring to connection of technical systems (i.e. video conferencing units) using the internet.
Latency	The delay between the length of time it takes a packet to move from source to destination.
LHD	Local health district
Local site	In the context of telecommunication, the site that is geographically connected to the remote site.
Local Area Network (LAN)	A computer network linking computers, printers, servers and other equipment within an enterprise, which can also support audio, video and data exchange.
Modality	The service contact mode.
NGO	A non-profit organisation or provider that operates independently of any government.
Packet	A unit of data made into a single package that travels along a given network path. Data packets are used in IP transmissions for data that navigates the web and other networks.
Packet loss	When one or more packets of data travelling across a computer network fail to reach their destination. Packet loss is either caused by errors in data transmission, typically across wireless networks, or network congestion.
Peripheral devices	Attachments to a telehealth system to augment communications and/or medical capability by capturing images, anatomic sounds or other physiological parameters, including items such as electronic stethoscopes, ophthalmoscopes, video cameras and scanners.
Picture archival and communications system (PACS)	Also known as digital image management systems and digital image networks. These systems, although generic in concept, apply to many medical and non-medical applications, are generally associated with the digitalisation of radiology departments. PACS consist of various modules integrated to form a coherent system: <ul style="list-style-type: none"> • image acquisition • digital networks • image archives; and • image display workshops.
Pillar	A distinct organisation within NSW Health that provides expertise and support for the public health system. Pillars of NSW are: the Agency for Clinical Innovation, Bureau of Health Information, Cancer Institute NSW, Clinical Excellence Commission and Health Education and Training Institute.
Point-to-point videoconferencing	Direct communication between two systems via a communications link.
Provider end (hub site/ clinical end)	The clinician whose expertise is requested via a physical referral or telemedicine referral.
Receiver end (spoke site/patient end)	The site at which the primary assessment, examination or activity is conducted and from which a referral is made to another practitioner.
Referring practitioner	The healthcare provider who initiates a referral following a primary examination.
Remote patient monitoring	The monitoring of patients outside of conventional clinical settings (e.g. in the home) which may increase access to care for patients and decrease healthcare delivery costs.

5 Wade, V. (2014). How to make telehealth work: Defining Telehealth Processes and Procedures. 2nd ed. Adelaide: e-unicare, pp.1-43. Available from: www.e-unicare.com.au/wp-content/uploads/2014/10/unicare_ebook_edition_2.pdf

Term	Definition
Remote monitoring	Using technology to collect and send medical and healthcare data to an app, device or service outside the traditional clinical setting.
Remote site	In the context of telecommunications, any site that is geographically separated from the local site.
Resolution	Number of pixels per unit of area. The more pixels the higher the resolution and detail of an image. There are two components: <ul style="list-style-type: none"> • contrast resolution measures the ability of distinguishing two objects of different composition • spatial resolution is related to the sharpness of an image, measuring the ability to separate two closely placed objects.
Service contact mode	The mode of service delivery (face to face, telehealth).
SHN	Speciality health network
Store and forward	A mode of transmission involving data that have been acquired and saved in format, e.g. a digital camera is used to take images of a patient's skin condition, which are electronically saved to a computer hard drive and subsequently transmitted.
Teleconferencing	Interactive electronic communication between two or more people at two or more sites, using voice transmission systems.
Telehealth	The delivery of health care at a distance using information and communications technology. Often used as an overarching term for telemedicine, tele-education, telementoring, telesupervision and telemonitoring.
Telehealth activity	Any health-related activity that is conducted at a distance between two or more locations using technology-assisted communications. Telehealth activities can be classified, but not limited by, the following: <ul style="list-style-type: none"> • client care services, e.g. consulting or diagnostics see also telehealth services • education and training, e.g. mentoring, continuing medical education, distance learning • management and administration • research and evaluation • consumer and community use • health promotion; and • public health.
Telemedicine	The use of information and communication technologies, specifically to provide, support and improve access to quality clinical health care.
TSAG	The Telehealth Strategic Advisory Group, which provides statewide leadership for telehealth including strategy, guidance, advice and support for the implementation and integration of telehealth in NSW.
Video conferencing	Connection of two or more people or locations via video camera and monitors, allowing all parties to speak to each other, see each other and in some cases exchange data simultaneously.

Appendix: Telehealth readiness assessment

This readiness assessment is designed to support clinicians and clinic administrators to consider the key features that enable the successful implementation of telehealth.

This readiness assessment should help guide your approach to improve telehealth services offered. Your service may not yet meet all of these requirements, and this shouldn't be a deterrent for undertaking telehealth.

This tool can be undertaken at any stage of telehealth implementation, both during initial set-up to identify key areas for inclusion, and once services are established to identify areas for improvement.

For further information, please refer to the ACI Telehealth Guide: Telehealth in Practice.

Checklist	Y/N	Comments
The clinical service		
Has identified opportunities and a need for telehealth to support the clinical service provision		
Has engaged with the Telehealth Manager/Lead regarding implementing telehealth, including: <ul style="list-style-type: none"> Identifying the appropriate telehealth equipment and technology (as per LHD recommendations) Ensuring local policies, procedures and requirements are met with regards to telehealth 		
Is correctly set-up for telehealth both on-site and at the patient site including: <ul style="list-style-type: none"> Appropriate facilities e.g. private and quiet location, lighting Telehealth equipment is placed in a convenient location for use in patient care 		
<ul style="list-style-type: none"> The minimum technology requirements have been identified and are available, eg a video otoscope or a portable camera is available for patient consultations A standard and consistent method of capturing consultation notes within the patient's medical record is in place at both ends of telehealth consultation A standard and consistent method to capture occasion of service / activity is in place at both ends of telehealth consultation 		
Has considered how scheduling and integration of telehealth will be undertaken.		
Has identified a lead for implementing telehealth, e.g. the high risk foot service (HRFS) coordinator		
Undertakes training with team members and other clinicians who will be engaging in consultations / case conferencing via telehealth		
Has identified the process for seeking technical support when required e.g. local support		
Has identified the process to escalate technical issues as required		

Checklist	Y/N	Comments
Has worked with patient sites to test the proposed telehealth approach to identify any issues and barriers prior to wider implementation		
Has identified how and when telehealth services will be promoted to patients and other clinicians e.g. verbal, posters, letters to GPs		
Has a process in place to monitor and report on the use of technology e.g. team meetings, daily rounds.		
Patients		
Receive all relevant information and advice for participating in telehealth (e.g. HRFS telehealth information flyers, clinicians explain what is involved in a telehealth consult)		
Are given opportunities to ask any questions they have before, during and after telehealth consultations		
Understand that telehealth is only used when clinically appropriate		
Clinicians		
Have been offered training in using telehealth equipment and feel that they have good technical support		
Are confident users and able to implement a secondary plan if technical issues arise prior to or during the clinical consultation		
Communicate with other clinicians and patients about the benefits of telehealth		

The Agency for Clinical Innovation (ACI) is the lead agency for innovation in clinical care.

We bring consumers, clinicians and healthcare managers together to support the design, assessment and implementation of clinical innovations across the NSW public health system to change the way that care is delivered.

The ACI's clinical networks, institutes and taskforces are chaired by senior clinicians and consumers who have a keen interest and track record in innovative clinical care.

We also work closely with the Ministry of Health and the four other pillars of NSW Health to pilot, scale and spread solutions to healthcare system-wide challenges. We seek to improve the care and outcomes for patients by re-designing and transforming the NSW public health system.

Our innovations are:

- person-centred
- clinically-led
- evidence-based
- value-driven.

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