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Allied health and telehealth

Guidelines for using telehealth to deliver allied health clinical services to public health services





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About this document

PURPOSE

This guidance – developed by Safer Care Victoria (SCV) and the Department of Health and Human Services (DHHS) – aims to provide health professionals with an understanding of how telehealth can be used to deliver allied health clinical services in public health settings, and the associated benefits.

It includes considerations for best practice application, as well as practical examples of how telehealth can be used for the clinical delivery of allied health services. Health professionals can use this information to assess the suitability of telehealth technology for the delivery of their own services, and as a guide to its effective application.

BACKGROUND

In response to the coronavirus (COVID-19) pandemic, a number of Victorian public health services have rapidly expanded their telehealth capacity to reduce transmission risks for patients and staff and support ongoing access to clinical services that are usually provided face-to-face.

In planning for the recovery phase post COVID-19, there is an opportunity to embed telehealth as 'business as usual' in public health services, particularly in the delivery of allied health services. This has the potential to significantly improve the efficiency and effectiveness of clinical operations, uplift workforce capacity, and enhance immediate and longer term patient outcomes.

TERMINOLOGY

Telehealth refers to the real-time and remote provision of clinical assessment, intervention and/or consultation services by a health professional to a patient (and/or their carer/s) using audio-visual information technologies (Australian Government Department of Health, 2015). For the purpose of this guidance document, telehealth does not extend to the delivery of clinical services solely via telephone.

Patient is used in this document for ease of reading and is not intended to preclude the language used by allied health professionals in different settings and sectors. The term patient may be substituted for client, consumer, participant or related terms throughout the document.

Best practice clinical applications of telehealth

In considering the potential benefits of telehealth, it is important to be clear as to its best practice application and suitability for various clinical presentations and needs.

Telehealth is a vehicle for clinical service delivery rather than a treatment/intervention in and of itself. It allows for substitution of select face-to-face clinical services via the real-time exchange of audio-visual information between a patient and a health professional (Australian Government Department of Health, 2015).

Health professionals must evaluate whether assessments, interventions and consultations are suitable for telehealth delivery by assessing whether comparable patient outcomes and the quality and safety standards applicable to face-to-face delivery methods can still be achieved (Australian Physiotherapy Association, 2020; OT Australia, 2020; Speech Pathology Australia, 2014). This evaluation requires a patient-centred approach that considers the specific needs of each patient, the interaction required for the clinical task, resources/equipment, and the environmental context.

It is therefore not possible to definitively list clinical services (both for occasions of service and full episodes of care) that may be delivered via telehealth. However, it is acknowledged that some services will translate better than others to a remote delivery model (refer to **Appendix 1 – Evidence base for telehealth for select clinical cohorts** on page 18), with a number also being automatic exclusions (in full or in part).

Exclusions to allied health service delivery via telehealth may include but are not limited to:

- assessments requiring physical examination of the patient that must be completed by the qualified allied health professional e.g. wound assessment, muscle tone/spasticity assessment
- standardised assessments that are not validated for use via a telehealth service delivery model
- interventions requiring physical application of treatment that must be completed by the allied health professional – e.g. diabetic foot care, lymphoedema management
- patients presenting with significant cognitive dysfunction, mental health or alcohol and other drug issues who may be difficult to assess/treat remotely, or where face-to-face observation of their physical appearance, behaviour or level of function is indicated as part of their management
- patients deemed to be 'at risk' if not receiving face-to-face service delivery e.g. high likelihood for reduced treatment compliance due to remote service delivery, potentially resulting in patient harm
- patients in settings in which privacy/confidentiality may be breached
- patients and/or carers who are unable to access telehealth platforms
- patients and/or carers who prefer to not receive telehealth service delivery
- services that cannot be funded or reimbursed via telehealth service delivery models.

CLINICAL CONSIDERATIONS

Considerations for determining the clinical suitability of telehealth delivery for physical and psychosocial-based allied health services are further outlined in Table 1.

Table 1: Considerations for determining the potential suitability of allied health assessments, interventions and consultations via telehealth delivery

G	eneral considerations	Considerations specific to physical conditions	Considerations specific to psychosocial conditions	
Patient	 Is the patient (and/or their carer/s) consenting to access telehealth delivery? Can the patient access technological equipment and an internet connection to support telehealth delivery? Is the patient able to consistently follow verbal instructions? Does the patient require the use of a qualified interpreter? Does the patient have any sensory impairments that impact their ability to use standard information technologies – i.e. commercially available hardware/software? Does the patient have sufficient attention/concentration for general participation? Does the patient have sufficient physical function and endurance for general participation? Will the patient have access to assistance from a carer/s during the session? Has the patient had prior faceto-face contact with the allied health professional? 	 Does the patient's presenting physical condition and premorbid history potentially preclude the use of telehealth delivery approaches? Is the patient presenting with an acute or pre-existing physical issue? Are the results of diagnostic tests, pathology and scans available to support accurate assessment and diagnosis? Is there a higher risk of inaccurate diagnosis or inappropriate treatment associated with telehealth delivery? 	 Does the patient's presenting cognitive/mental health and/or psychosocial issues and premorbid history potentially preclude the use of telehealth delivery approaches? Is the patient/client presenting with an acute or long-standing psychosocial issue? Are other preliminary assessments/reports available to support accurate assessment and diagnosis? Is there a higher risk of inaccurate diagnosis or inappropriate treatment associated with telehealth delivery? Is the patient potentially at higher overall risk if receiving telehealth delivery? 	

General considerations

- Can best practice assessment and intervention approaches for the patient's clinical condition be readily adapted to telehealth?
- Is the assessment or intervention proposed as standalone telehealth delivery or as part of a combined face-to-face/ telehealth approach?
- Is a single discipline or interdisciplinary approach best indicated for the patient's presenting condition?

ask

Therapy resources and environment

- Can all required disciplines provide their respective assessments and interventions via telehealth delivery?
- Does the patent require access to therapy equipment items to complete aspects of their assessment or intervention?
- Can therapy equipment be sourced from everyday household items or is specialist therapy equipment required?
- Is supervision or assistance required to set up or operate required equipment items?
- Are mechanisms in place to loan/deliver required therapy equipment prior to the patient commencing telehealth sessions?
- Is the patient's home environment suitable for the required assessment or intervention? – e.g. level of privacy, free from distractions, sufficient physical space, potential safety hazards

Considerations specific to physical conditions

- Does the assessment require close inspection of the patient's physical appearance or function that may not be discernible via information technologies? – e.g. eye saccades, capillary bed filling, skin pallor, sweating
- Does the assessment or intervention require physical examination that can only be provided by the allied health professional? – e.g. sensory feedback via touch/handling of the affected limb, application of physical modalities (such as traction, ultrasound and paraffin baths), fitting of prosthetics, orthotics or adaptive equipment to the body

Considerations specific to psychosocial conditions

- Does the assessment require close inspection of the patient's physical appearance and behaviours that may not be discernible via information technologies? – e.g. personal hygiene, potential weight loss, degree of eye contact
- Is the nature of the assessment or intervention best delivered via telehealth or face-to-face? – e.g. domestic violence counselling, grief/loss support

STRUCTURAL CONSIDERATIONS

In addition to clinical suitability, a number of structural factors must also be considered in the best practice application of models of telehealth service delivery. This is consistent with the experience of health services that have been able to successfully deliver a significant proportion of speciality clinic activity via telehealth during the COVID-19 response (Reeves et al., 2020).

Clinical governance

Clinical governance arrangements for face-to-face versus telehealth clinical service delivery need not be identical, but must ensure the same level of effectiveness, safety, timeliness and equity of clinical care is offered. Compliance with clinical practice standards, adherence to scope of practice, clearly defined roles/responsibilities, and embedded clinical review mechanisms are essential to support the provision of high-quality and safe patient care and must be considered in transposing clinical care models to telehealth delivery.

Funding

From a business/operational perspective, it is important to ensure that service funding requirements support the delivery of clinical services via telehealth. The Victorian health services' policy and funding guidelines 2019–20 (DHHS, 2019) include provisions that support the delivery of acute specialist clinics and emergency department service events via telehealth within existing acute care funding models (i.e. Weighted Ambulatory Service Events funding for speciality clinics, and Non-Admitted Emergency Services Grants for emergency departments).

Similarly, block funding guidelines for subacute non-admitted services (e.g. Health Independence Programs, including Post Acute Care, Subacute Ambulatory Care Services, the Hospital Admission Risk Program and residential in-reach services) do not preclude telehealth delivery of direct non-admitted contacts. However, indirect contacts via telehealth (such as case conferencing with a patient's GP) are excluded from activity targets and are encompassed in the unit price for direct non-admitted care (DHHS, 2019). For allied health, this provides for significant flexibility in the delivery of care and services within public hospitals and networked health services.

Administrative and technical support

Adequate administrative and technical staff resourcing is also essential to ensure the coordinated delivery of clinical services via telehealth – in particular, support for appointment scheduling, activity data/billing, and technical set-up and troubleshooting functions. As well as providing a better patient experience, this level of support enables clinical staff to work at the top of their scope of practice and enhances service productivity.

Allied health service telehealth models

Models to support the delivery of traditional, face-to-face allied health clinical services via telehealth can be conceptualised as consisting of four elements.



Practice setting

Examples of admitted/inpatient care that may translate to telehealth delivery (e.g. acute, subacute and transitional care settings) include:

- provision of components of patient management if the clinician is unable to attend at the bedside
- access to specialist consultation (particularly in regional/rural areas)
- integration with other community providers involved in care provision
- connection with carers/family who are unable to physically attend the inpatient care setting.

Examples of non-admitted episodes of care that may translate to telehealth delivery (e.g. specialist clinics, outpatient services, ambulatory/community programs – individual and group sessions) include:

- full or partial substitution of the traditional model of care
- access to specialist consultation (particularly in regional/rural areas)
- integration with other community providers involved in care provision
- connection with carers/family who are unable to physically attend the inpatient care setting
- inpatient diversion and outreach services (including residential aged care and disability services).

Clinical need and considerations

Refer to Best practice clinical applications of telehealth on page 4.

Workforce requirements

When identifying the workforce required to support service delivery (including professional and delegated workforces, administrative services, and support services), health professionals must consider which of the following models is most suitable:

- a single discipline providing standalone discipline-specific input
- multiple disciplines operating in a multidisciplinary model i.e. separate sessions provided by each discipline
- multiple disciplines operating in an interdisciplinary model i.e. single session with shared goals and a co-treatment approach
- a single discipline or multiple disciplines operating in a transdisciplinary or generic work model.

The design of operational workforce models will examine whether:

- roles/caseloads are structured as a mix of face-to-face and telehealth service delivery (hybrid)
- roles/caseloads are structured solely as telehealth service delivery (full substitution)
- dedicated staff provide set telehealth clinical services
- rotating staff cover referrals to set telehealth clinical services.

Telehealth delivery approach

Patient-centred approaches to the delivery of clinical services via telehealth may offer:

- full substitution for face-to-face clinical services that translate to telehealth service delivery
- a hybrid approach using both face-to-face and telehealth service delivery to best meet clinical needs
- individual patient telehealth sessions
- group therapy telehealth sessions for multiple patients.



A dietitian remotely assesses a patient admitted to ICU with confirmed COVID-19 and develops an enteral nutrition regime while located at another campus of the same health service. The telehealth consultation involves communication between the dietitian, nursing and junior medical staff, and access to patient clinical data and pathology results from the electronic medical record (EMR). Outcomes of the assessment and recommendations for enteral nutrition are remotely documented by the dietitian within the EMR and communicated to the beside nurse via videoconferencing, who then institutes the feeding regime.

Example 2



After initially completing a face-to-face assessment of the patient six weeks post carpal tunnel release surgery, a hand therapist conducts a one-week follow-up consult with the patient via telehealth. The focus of the review session is to determine how the patient's scar is progressing, assess joint range and oedema, and review/progress their home exercise strengthening program. The hand therapist provides the consultation via webcam from a private office space adjacent to the outpatient clinic and documents their clinical assessment and recommendations within the paper-based medical record. The hand therapist also provides a follow-up email to the patient to confirm agreed changes to their home exercise program.

Example 3



A patient is referred to the early supported discharge program post inpatient discharge for ongoing stroke rehabilitation (occupational therapy, physiotherapy and speech pathology) and pharmacy education. A mix of face-to-face and telehealth service delivery is employed by the various disciplines, all of whom provide individual input to the patient's care. For example, the speech pathologist engages the patient in a weekly communication skills group that is conducted via telehealth sessions and completes a fortnightly face-to-face review of their swallowing function and tolerance of a modified consistency diet. The pharmacist completes two telehealth education sessions with the patient's carer on medication compliance for blood pressure and cholesterol management.



A patient is referred to a health service's virtual pain management clinic. The clinic employs a team of medical, nursing and allied health professionals (occupational therapy, physiotherapy and psychology) and operates within an interdisciplinary model. Weekly telehealth consultations are conducted by a team of clinicians (dependent on the specific clinical needs of the patient) who provide a complete program of assessment, treatment, education and self-management. Regular communication between the patient, their GP and the clinic team is also supported through telehealth team conferences.

Example 5



A junior social worker employed as a community mental health practitioner provides a mix of face-toface and telehealth counselling services for a long-standing patient with bulimia nervosa. Owing to a change in the patient's presentation, the social worker asks their professional supervisor – a clinical psychologist also employed as community mental health practitioner – to sit in on a telehealth session and provide an opinion on the need for an amended treatment plan. With the patient's consent, a cotreatment session is delivered by the social worker and psychologist via telehealth to determine the suitability of the revised treatment plan.

Improving workforce utilisation and service access

Digital health technologies, such as telehealth, have significant potential to address health workforce shortages and inequities in service access by improving workforce resource utilisation and productivity (Australian Government, Australian Digital Health Agency, 2019).

Telehealth can facilitate enhanced patient access to allied health services, particularly in outer metropolitan and regional and rural areas which typically experience difficulty in attracting and retaining qualified health professionals (Australian Government, National Rural Health Commissioner, 2019).

Using telehealth, allied health professionals can deliver select treatments/interventions while living and working outside of the patient's geographical vicinity. The capacity for remote service delivery may also reduce the clinician time 'lost' in travelling to and from home- and community-based appointments, and from patient non-attendance at scheduled face-to-face appointments. Thus, telehealth may partially address regional workforce shortages and improve the use of existing but finite allied health resources.

In addition to productivity benefits, telehealth provides a powerful mechanism for workforce capacity uplift. Access to secondary consultations and clinical supervision/mentoring from more experienced clinicians can easily be provided to individuals or teams using this technology. This is particularly advantageous for speciality and niche areas of clinical practice where a health service may not commonly experience a specific patient presentation and therefore does not require designated specialty resourcing on an ongoing basis.

Under Victoria's devolved governance model, the main barrier to the uptake of 'hub and spoke' telehealth models for knowledge-sharing and skill development is the lack of funding mechanisms to support 'hub' sites to release their clinicians to provide input to 'spoke' sites. Memoranda of understanding are also likely to be required to ensure appropriate alignment of hub and spoke sites within clinical specialty and geographic groupings, potentially leveraging the development of any workforce cluster models as part of the COVID-19 workforce planning response.

Future opportunities

There is a significant opportunity to optimise the value of telehealth service delivery for both providers and patients through integration with other information technology applications and tools (Ackerman et al., 2010; Gill, 2011).

EMR

Integration between a health service's EMR and telehealth platform enables interoperability between the two systems and more streamlined user workflows (American Telemedicine Association, 2006). Health professionals are able to interact with a single platform rather than navigating two separate systems, and can access relevant clinical data and note-taking/documentation functions while concurrently delivering the telehealth consultation (Gill, 2011). This enhanced functionality has the potential to improve the quality of patient care and outcomes by facilitating evidence-based decision making, reducing errors/omissions of care, and enhancing continuity of care (American Telemedicine Association, 2006).

REMOTE MONITORING DEVICES

Remote monitoring devices use advanced information technologies to enable the collection of patient data outside of traditional models of healthcare service delivery (Vegesna, Tran, Angelaccio & Arcona, 2017). Monitoring devices may be either purpose built to monitor specific vital signs and dimensions of function or use software applications via the patient's own personal technology (i.e. mobile phones and tablets, smartwatches, and wearable fitness trackers) (Dias & Cunha, 2018).

Common to both device categories is the capacity to remotely monitor, store and transmit data from the patient to the healthcare provider over multiple timepoints and extended time periods. This may be from the patient's hospital bedside to a clinician located in another part of the facility, or from the patient's home to a clinician based in a community outpatient clinic (Ackerman et al., 2010).

Physiological and functional health and wellbeing measures that can be monitored remotely with current technologies include but are not limited to:

- body temperature
- blood pressure
- respiratory rate
- blood glucose
- heart rate
- oxygen saturation
- body weight
- fall alerts
- level of physical activity i.e. step and stair counters
- usage patterns of household appliances
- sleep quality.

In parallel, data collection via remote monitoring devices enhances the adaptability of telehealth service delivery for a variety of clinical conditions and the quality of service provision, including providing increased opportunity for patient engagement with their own healthcare (Ackerman et al., 2010).

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Practical implementation of telehealth

A number of state government agencies and allied health professional associations have developed guidance to support the practical implementation of telehealth service delivery. These documents outline key infrastructure and systems level requirements including:

- technological specifications and resourcing requirements
- information technology security and digital information management processes
- legal considerations e.g. informed consent, privacy and confidentiality and clinical data storage and record keeping
- professional indemnity
- workforce education/training needs e.g. procedural use of technology, translation of clinical service delivery to telehealth platforms, enhanced communication skills, change management support.

RESOURCES

Key departmental documents include:

- Critical success factors: How to establish a successful telehealth service (DHHS, 2015) www2.health.vic.gov.au/hospitals-and-health-services/rural-health/telehealth/about-telehealth
- Medico-legal aspects of telehealth services for Victorian public health services (DLA Piper Australia for DHHS, 2015)
 www2.health.vic.gov.au/hospitals-and-health-services/rural-health/telehealth/medico-legalaspects

Examples of resources and documents developed by various allied health regulatory bodies, professional associations, and peak organisations include:

- Allied Health Professions Australia
 Telehealth guide for allied health professionals (PDF)
 ahpa.com.au/wp-content/uploads/2020/06/AHPA-Telehealth-Guide_Allied-Health-Professionals-May-2020.pdf

 The Australian Orthotic Prosthetic Association
- COVID-19: Alternative, non-traditional modes of orthotic/prosthetic service delivery (PDF) www.aopa.org.au/documents/item/862
- Australian Physiotherapy Association Telehealth guidelines: Response to COVID-19 (PDF) australian.physio/sites/default/files/APA_Telehealth-Guidelines-COVID19_FA.pdf
- Australian Podiatry Association
 Telehealth for podiatrists
 www.podiatry.org.au/about/news/telehealth-for-podiatrists

• Australian Psychological Society

Principles for choosing videoconferencing technology www.psychology.org.au/for-the-public/Medicare-rebates-psychological-services/Medicare-FAQsfor-the-public/Telehealth-services/Principles-choosing-videoconferencing-technology

- Dietitians Association of Australia Accredited practising dietitians telehealth guidelines (PDF) daa.asn.au/wp-content/uploads/2020/05/APD-Telehealth-Guidelines-May-2020.pdf
- Occupational Therapy Australia (OTA)
 OTA telehealth guidelines, checklist and consent form template www.otaus.com.au/member-resources/covid-19/telehealth

• Speech Pathology Australia

Telepractice in speech pathology

www.speechpathologyaustralia.org.au/SPAweb/Members/Position_Statements/Position_Statement s.aspx?hkey=b1a46941-246c-4609-bacc-1c1b5c52d19d#tp

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Appendix 1 – Evidence base for telehealth for select clinical cohorts (as at May 2020)

Clinical cohort	Author/s	Level of evidence	Study conclusions
Asthma	Kew & Cates (2016)	Systematic review	 Evidence does not demonstrate any important differences between face-to-face and remote asthma check-ups in terms of exacerbations, asthma control, or quality of life. Insufficient information to determine whether or not remote asthma check-ups are as safe as face-to-face alternatives.
Chronic obstructive pulmonary disease	Lundell, Holmner, Rehn, Nyberg & Wadell (2018)	Systematic review	From the combined analysis of nine randomised control studies (982 patients), a significant effect for physical activity levels was found for interventions delivered via telehealth. However, there was no difference between groups for measures of physical capacity and dyspnea.
HIV	Gentry, van- Velthoven, Tudor Car & Car (2013)	Systematic review	A limited evidence base supports the role of telephone interventions in improving medication adherence, reducing risky sexual behaviour, and reducing depressive and psychiatric symptoms.
Malnutrition	Marx et al. (2018)	Systematic review	Malnutrition-focused telehealth interventions were found to improve protein intake and quality of life measures in older adults at a statistically significant level.
Musculoskeletal conditions	Cottrell, Galea, O'Leary, Hill & Russell (2017)	Systematic review	Analysis of 13 studies suggests telerehabilitation plus usual care, compared to usual care alone, is associated with improved physical function. However, pain measures remained comparable between the two cohorts.
Nutrition-related chronic disease	Kelly, Reidlinger, Hoffman & Campbell (2016)	Systematic review	Telehealth-delivered interventions for the adoption of complex dietary recommendations can improve diet quality, fruit and vegetable intake, and dietary sodium intake. However, uptake of single nutrients (total fat and energy consumption) was not improved by telehealth interventions.
	Goode, Reeves & Eakin (2012)	Systematic review	Of 27 comparison studies of telephone-delivered interventions for activity and dietary behaviour change, 20 were found to include evidence for initiation of behaviour change. However, further studies are required regarding dissemination and dose response.
Renal	Stevenson et al. (2019)	Systematic review	The poor quality of studies included in the systematic review limits the ability to determine if e-health interventions lead to improved clinical and patient- centred outcomes as compared with usual care.

Clinical cohort	Author/s	Level of evidence	Study conclusions
Stroke	Laver et al. (2020)	Systematic review	 Difficult to draw conclusions on effectiveness owing to significant variation in the interventions and few adequately powered studies. Studies comparing telehealth approaches within usual care in-person rehabilitation have not demonstrated significant differences between groups, suggesting that telehealth is not inferior.
Weight management	Appel et al. (2011)	Randomised control trial	Results of the randomised control trial comparing participants receiving a remote telehealth or face-to-face weight loss support program indicated that both participant groups were able to sustain clinically significant weight loss over a 24-month period.
	Hutchesson et al. (2015)	Systematic review	 Findings support the use of e-health interventions as a treatment option for obesity (as compared to control or minimal interventions), and also suggest e-health weight loss interventions are more effective when they include multiple technologies. However, there is insufficient evidence as to the longer term effectiveness of e-health interventions for weight loss maintenance.



