



Becoming Telehealth Enabled

What is telehealth?

Telehealth refers to the use of information and communication technologies (ICTs) to deliver health services and transmit health information over both long and short distances. It is about transmitting voice, data, images and information rather than moving care recipients, health professionals or educators' (International Organisation for Standardisation).

Any aspect of the health service continuum, including diagnosis, treatment, education and curative services, can be provided via telehealth.

Video-conferencing refers to the transmission of real-time (live) audio-visual data via the internet. It is the medium most progressed for the provision of telehealth, and in particular for outpatient services, tele-psychiatry and patient and health professional education. As such, the term telehealth is often used interchangeably with video-conferencing or video-consultations.

Getting started with telehealth

There are three fundamental requirements to enable video-conferencing to take place. The attached flowchart, 'Becoming telehealth enabled', illustrates the process of addressing these requirements:

1. Internet connectivity
2. Software
3. Hardware

Internet connectivity

The audio-visual quality of a video-conference is directly related to the speed at which the data is transmitted along the internet connection.

For clinical video-conferencing, the recommended upload speed for the internet connection is 512kps.

Testing the speed of an internet connection can be easily undertaken by visiting the following website <http://beta.speedtest.net/>.

If the upload speed of the internet connection is too slow (ie less than 512kps), contact your Internet Service Provider (ISP) to discuss options for improving your current connection.

Fibre, ADSL2+ and 4G (LTE) 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, video-conferencing for telehealth would be less than optimal. The rollout of the National Broadband Network (NBN) may provide improved options in the future. Visit the NBN website www.nbnco.com.au for further information.

If the current upload speed is adequate, it is also important to consider whether your network can cope with the extra data transfer for video-conferencing. The extra network activity may impact on the rest of the practice (upload and download speeds slow dramatically on some network connections when extra data usage occurs).

For advice about your organisation's network, consult your ISP or IT professional.

Whilst all care has been taken in preparing this document, this information is a guide only and subject to change without notice.

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Video conferencing solutions

Video-conferencing service solutions are managed by service providers and offer a variety of packages at different prices. These packages often include the software and equipment (hardware) required for video-conferencing and may include initial set-up, ongoing support, bridging services for multiple point video-conferences and booking services.

Software solutions refer to the use of either paid or free software downloadable from the internet to be used on current hardware (ie computer).

It is best to compare both software and service solutions, and determine which option suits your needs most.

A limitation of both options is that the solution chosen may only communicate with users who also use the same solution (ie cannot video-conference if one end is using Apple Facetime and the other is using Microsoft Skype). Consider contacting the people you will most often be video-conferencing with and determine which options will be compatible.

It is also important to consider the level of security provided by each solution or option. Most software solutions will connect both participants to a server rather than directly to one another, therefore creating opportunity for malicious users (for example, hackers) to intercept the session.

Hardware

When choosing your hardware, it is important to consider more than simply meeting the audio/video standards for adequate video-conferencing. It is also important to consider the location(s) that the video-conferencing will take place, the number of people that will be using the equipment, and whether or not you plan to use it for other purposes, such as education and meetings.

The following is a list of hardware items and minimum standards required for video-conferencing.

1. Computer – ideally no more than 18 months old, and meets the software developer's minimum required specifications.
2. Camera – capability of capturing images in high definition (HD) will provide clearer, more defined images.
3. Speakers – accessory speakers will enable better quality output than those built into computers.
4. Microphones – are often built into the webcams but can be low quality. Microphones

may be purchased separately, or as part of a headset.

5. Computer Screen – standard desktop and laptop screens are usually of adequate quality. For the best quality, HD (1080p) screens are recommended.

Other Considerations

Topic	Questions to think about
Software Solution	<ul style="list-style-type: none"> • Is current hardware (equipment) capable of performing the tasks required for video-conferencing with the software chosen? • Will ongoing support be required? • What level of security does this software offer and how will any risks be addressed? • What software is currently being used by others with whom I will connect?
Service Solution	<ul style="list-style-type: none"> • What level of security does this software offer and how will any risks be addressed? • What is included in the cost/package? • Is the software compatible with current infra-structure? • Will a new service, or internet connection be required? • Will there be a need to share screens or other information whilst in the video-conferencing?
Room set up	<ul style="list-style-type: none"> • Where will the video-conferencing be conducted? • Who else will be undertaking telehealth at the practice? • Who else will use the video-conferencing equipment? • Will the video-conferencing equipment be used for other purposes eg meetings, education?
Computer	<ul style="list-style-type: none"> • Will the computer and other equipment need to be mobile? • Will other equipment need to be connected to the computer? • Will the computer be used for tasks other than video-conferencing?
Camera	<ul style="list-style-type: none"> • Will the camera need to be moved during the video-conference?

Topic	Questions to think about
	<ul style="list-style-type: none"> • Will the camera need to be controlled from the other end? • Will a specific accessory camera be required for video-conferencing with certain specialists?
Speakers	<ul style="list-style-type: none"> • Will anyone else in the room be required to hear the telehealth conversation? • Is it a busy or noisy environment in which headphones may be most appropriate? • Will the equipment be used for anything other than telehealth consultations?
Micro- phone	<ul style="list-style-type: none"> • Will there be only one person in the room for telehealth consultations? • Will the equipment be used for anything other than Telehealth consultations? • Will the microphone need to move around the room?
Screen/ display	<ul style="list-style-type: none"> • Is the screen big enough for the room in which the telehealth consultations will be conducted? • Will access to electronic patient notes be required during the telehealth consultation?

More information

Practice Assist Fact Sheets:

- Conducting a Telehealth consultation
- Free software options for Telehealth consultations
- Paid software options for Telehealth consultations
- Privacy for video consultations
- Telehealth service options
- Troubleshooting video consultations
- What are the Telehealth Medicare Benefits Schedule item numbers?

References

Australian Government Department of Health
<http://www.health.gov.au/internet/main/publishing.nsf/Content/e-health-telehealth>

Further Information

The following websites provide further information on software and hardware options.

Australian College of Rural and Remote Medicine

www.ehealth.acrrm.org.au

Royal Australian College of General Practice

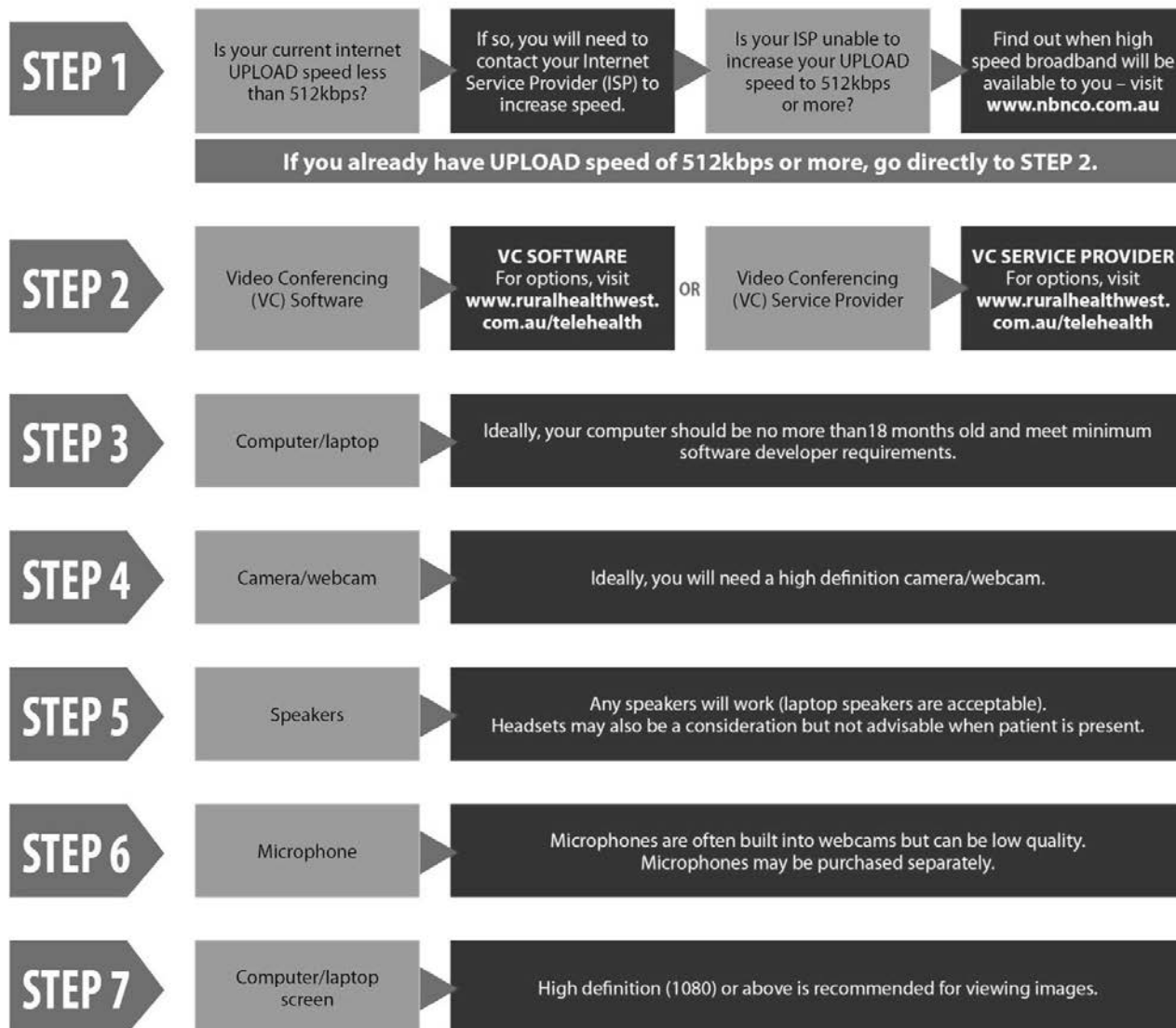
<http://www.racgp.org.au/telehealth>

Medicare Benefit Schedule Online

www.mbsonline.gov.au/telehealth

Becoming Telehealth enabled

Information and communication technology considerations



You are now Telehealth enabled