

Telehealth for Australian general practice

The present and the future

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Background

In March 2020, 56 temporary Medicare Benefits Schedule telehealth item numbers were introduced for Australian general practitioners (GPs) in response to COVID-19. Telehealth is now a permanent part of Australian primary care and, as such, an adequate understanding of the benefits, barriers and facilitators is essential for GPs.

Objective

The aim of this article is to examine the use of telehealth in general practice in Australia and to explore the benefits, barriers and facilitators to performing telehealth consultations. A narrative review was performed.

Discussion

Benefits of telehealth include increased access to healthcare and reduced risk of COVID-19 transmission. Barriers can include lack of technological infrastructure, limitations to performing physical examination and concerns regarding privacy and confidentiality. Facilitators include tailored GP training and sustainable funding models. Further research and training are needed to ensure that telehealth is used optimally and equitably in Australia.

TELEHEALTH refers to the delivery of health services over a distance via telecommunication technologies. Telehealth comes in many forms, including remote patient monitoring, such as home blood pressure monitoring, and e-consultations, which involve asynchronous electronic communication between patients and healthcare providers. For the purpose of this article, 'telehealth' will refer to videoconferencing and telephone consultations between doctor and patient.

On 13 March 2020, 281 temporary Medicare Benefits Schedule (MBS) item numbers were introduced for telehealth consultations in Australia in response to the COVID-19 pandemic, of which 56 were for primary care.¹ In April 2020, 36% of all general practice consultations were performed via telehealth (96% by telephone, 4% by videoconference),² suggesting a rapid uptake of these services in the primary care setting. On 13 December 2021, it was announced that telehealth would become a permanent feature of Australian general practice.³

Telehealth consultations have utility in general practice beyond the COVID-19 pandemic. Several studies have shown that general practice patients are interested in using telehealth post-pandemic for issues that do not require an in-person visit.^{4,5}

Internationally, in April 2020, the chair of the UK's Royal College of General Practitioners suggested that half of all general practice consultations could be carried out remotely after the COVID-19 pandemic has passed.⁶ Now that telehealth has become permanent, it is essential that general practitioners (GPs) have an adequate understanding of the benefits, barriers and facilitators of its use.

The aim of this article is to examine the use of telehealth in general practice in Australia and to explore the benefits, barriers and facilitators of performing telehealth consultations. A narrative review was performed.

Prior to the COVID-19 pandemic, telehealth was available in Australia but not widely remunerated in the primary care setting. For decades, Australian GPs have used telehealth (via telephone) in the absence of remuneration, including follow-up telephone calls after face-to-face visits and giving pathology and/or imaging results over the phone. Pre-pandemic, telehealth was remunerated in limited settings, such as the Royal Flying Doctor Service (RFDS) and for non-GP specialist services via videoconferencing. The RFDS, funded by the Commonwealth Department of Health, has been using telehealth since as early as the 1930s, performing more than 88,000 telehealth

consultations in 2016–17.⁷ Patients using this service can access medical chests (medications) that can be prescribed during the tele-consultation.⁸ In July 2011, the MBS introduced videoconferencing item numbers for patients in rural and regional areas and patients attending Aboriginal Medical Services who required non-GP specialist services.⁹ There are also multidisciplinary case conferencing item numbers, involving the GP and two community care providers, that can be performed via telehealth with the patient in attendance.¹⁰

The pre-COVID-19 pandemic evidence, internationally, showed that patients accessing telehealth had high levels of overall satisfaction when compared with those attending for in-person consultations.^{11–13} This has since been replicated during the COVID-19 pandemic among Australian general practice patients.^{4,14} Telehealth provides benefits beyond patient satisfaction, particularly in the context of a pandemic, including reduced risk of COVID-19 transmission, remote triage of care, enabling social distancing by reducing waiting room numbers and remote care of patients with COVID-19.^{15,16}

Beyond the pandemic, telehealth offers increased convenience by reducing travel costs and employment disruption and increasing efficiency in a busy general practice (eg by replacing in-person visits for repeat prescriptions and referrals).^{5,17} In addition, an Australian study has shown that offering telehealth consultations can decrease non-attendance rates and therefore reduce healthcare resource waste.¹⁸ Furthermore, telehealth increases access to primary care for vulnerable populations. This includes patients living in rural areas and/or metropolitan areas with poor public transport services, for whom travel to a GP poses a significant burden. Another example is patients living with chronic disease, who typically have considerable barriers to accessing primary care, including reduced mobility and need for paid carer support to get to appointments.¹⁹ This is particularly relevant as many GPs no longer perform home visits.²⁰ This increased access also applies to patients from lower

socioeconomic backgrounds, who typically have a higher prevalence of chronic disease²¹ and similar barriers to accessing primary care.

As telehealth consultations, on average, tend to be shorter in duration when compared with in-person visits, using this modality appropriately can increase service availability in general practice.^{22,23} Conversely, inappropriate telehealth use could amplify GP workload by increasing the number of subsequent follow-up consultations, effectively leading to ‘double-handling’.²³ This can disrupt practice workflow and increase the burden on GPs. This compounds the issue of greater GP workload observed with telehealth-related improved patient access.²⁴ Thus, structural changes are needed to minimise this impact. A potential solution is the use of asynchronous teleconsulting, whereby patients send GPs digital communication, which allows for triage to in-person or telehealth consultation. However, without a separate remuneration model, this would not be sustainable for GPs.

There are also barriers to telehealth uptake, with the most significant in Australia being a lack of technological infrastructure and internet access.^{5,25} This is particularly relevant for individuals living in rural and remote areas, who typically have poor internet speeds, unstable internet connections and lack of access to digital devices.^{26,27} In addition, as telehealth shifts to a focus on videoconferencing, there is a risk that access will be reduced for vulnerable population groups for whom video technology will be a challenge, including the elderly, culturally and linguistically diverse patients and those from lower socioeconomic backgrounds.²⁸ This needs to be considered when designing future telehealth models.

Another barrier to using telehealth is the limitation in performing physical examination remotely. This may be attenuated by patients having personal medical equipment that they have been trained to use by a GP or nurse, such as blood pressure monitors and glucometers. However, not all patients will be able to reliably use these tools.

GPs should be encouraged to use available personal medical equipment, encourage patients with chronic disease to purchase appropriate equipment and train them to use it reliably. A potential solution to this barrier is tele-examination technology, which was trialled in aged care facilities in the ACT in 2021.²⁹ It is important to note, however, that a limited remote examination is possible via videoconference, which can include, for example, assessment of gait, rashes and work of breathing.

Telehealth can also introduce communication barriers, including loss of non-verbal communication via telephone. This is particularly relevant when managing complex situations, such as breaking bad news, where a face-to-face consultation would be preferred. Both patients and doctors have also expressed concerns about privacy and confidentiality when performing telehealth, including the possibility of other household members overhearing consultations.⁵ This is particularly relevant for family violence and elder abuse contexts, where unseen involvement in the telehealth consultation could pose direct risks to the patient.³⁰ There is also risk to the clinician via secret recording of the consultation, and the legislation surrounding this varies between states.³⁰ A potential solution to this risk is using telehealth software that prevents screen recording; however, recording will still be possible with a secondary device.

Overall, satisfaction with telehealth is high, and there are benefits to its use, both during a global pandemic and beyond, including decreased risk of COVID-19 transmission, increased healthcare access for vulnerable populations and increased convenience. The potential barriers to telehealth include lack of technological infrastructure, accessibility issues, limitations in performing physical examination and concerns about privacy and confidentiality. The weight of evidence and opinion sees telehealth as an important component of future general practice healthcare delivery, provided it is used appropriately as an adjunct to in-person visits and can be accessed by all Australians.

For telehealth to be used equitably, certain facilitators are required.

These include adequate funding for telehealth infrastructure and appropriate remuneration for GPs. On 20 March 2020, the Australian Government announced \$669 million in funding for the expansion of a universal telehealth model to allow all Australians to access telehealth.³¹ At the time of writing, telehealth has been made permanent in general practice, and a further \$308.6 million has been invested.³ Ongoing funding will be required to ensure that telehealth remains accessible for all Australians, particularly for the aforementioned groups who will experience barriers to telehealth use.

The other important facilitator is telehealth training for GPs. The Royal Australian College of General Practitioners (RACGP) and Australian College of Rural and Remote Medicine (ACRRM) have telehealth resources on their websites, including guides to providing remote consultations.^{32,33} These guides provide practical advice on how to conduct telehealth and when it is appropriate to replace an in-person visit. Both colleges also advocate for all-of-practice training in the use of telehealth systems.^{32,33} In regard to GPs-in-training, there are specific resources from the RACGP recommending supervision of telehealth use;³⁴ however, dedicated training in telehealth use will also be needed. Ultimately, it is essential that ongoing training is provided as the landscape of telehealth changes over time, particularly as we move towards a post-pandemic Australia.

Conclusion

Telehealth is now a permanent part of Australian general practice. It offers several potential benefits for both GPs and patients. This may be particularly so in the setting of the COVID-19 pandemic, but benefits will extend beyond the pandemic. However, there are barriers to telehealth uptake, and the ongoing facilitators of funding and training are needed to ensure that telehealth is accessible to all Australians. The benefits, barriers and facilitators need to be considered when designing future telehealth models, and further research and training are needed

to ensure that telehealth is used both optimally and equitably.

Key points

- Both GPs and patients have expressed high levels of satisfaction with telehealth.
- Telehealth provides increased access to healthcare, particularly for vulnerable populations.
- Lack of technological infrastructure and privacy concerns are barriers to telehealth.
- Important facilitators of telehealth are adequate funding and training.
- Further research and training are needed to ensure that telehealth is used optimally and equitably.

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References

1. Australian Government Department of Health. COVID-19 temporary MBS telehealth services. Canberra, ACT: DoH, 2021. Available at www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Factsheet-TempBB [Accessed 13 September 2021].
2. The University of Queensland Australia Centre for Online Health. Telehealth and coronavirus: Medicare Benefits Schedule (MBS) activity in Australia. Woolloongabba, Qld: UQCOH, 2021. Available at www.coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia [Accessed 15 December 2021].
3. Department of Health. The Hon Greg Hunt MP. Permanent telehealth to strengthen universal Medicare. Canberra, ACT: DoH, 2021. Available at www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/permanent-telehealth-to-strengthen-universal-medicare#:~:text=The%20Hon%20Greg%20Hunt%20MP&text=Telehealth%20will%20become%20a%20permanent,pillar%20of%20our%20health%20system [Accessed 15 December 2021].
4. Javanparast S, Roeger L, Kwok Y, Reed RL. The experience of Australian general practice patients at high risk of poor health outcomes with telehealth during the COVID-19 pandemic: A qualitative study. *BMC Fam Pract* 2021;22(1):69. doi: 10.1186/s12875-021-01408-w.
5. Imlach F, McKinlay E, Middleton L, et al. Telehealth consultations in general practice during a pandemic lockdown: Survey and interviews on patient experiences and preferences. *BMC Fam Pract* 2020;21(1):269. doi: 10.1186/s12875-020-01336-1.
6. Pulse Today. Half of GP consultations could be remote after COVID-19, says RCGP chair. London, UK: Cogora, 2020. Available at www.pulsetoday.co.uk/news/uncategorised/half-of-gp-consultations-could-be-remote-after-covid-19-says-rcgp-chair [Accessed 6 March 2021].
7. Royal Flying Doctor Service. 2018 Regional Telecommunications Review. Canberra, ACT: RFDS, [date unknown]. Available at www.infrastructure.gov.au/sites/default/files/submissions/royal_flying_doctor_service_rfds.pdf [Accessed 1 March 2022].
8. Margolis SA, Ypinazar VA. Tele-pharmacy in remote medical practice: The Royal Flying Doctor Service medical chest program. *Rural Remote Health* 2008;8(2):937.
9. Australian Government Department of Health. MBS online: Medicare Benefits Schedule. Canberra, ACT: DoH, 2021. Available at www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Factsheet-TempBB [Accessed 2 March 2021].
10. Australian Government Department of Health. Multidisciplinary case conferences. Canberra, ACT: DoH, 2013. Available at www1.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-caseconf-factsheet.htm [Accessed 1 December 2021].
11. Polinski JM, Barker T, Gagliano N, Sussman A, Brennan TA, Shrank WH. Patients' satisfaction with and preference for telehealth visits. *J Gen Intern Med* 2016;31(3):269-75. doi: 10.1007/s11606-015-3489-x.
12. Kruse CS, Krowski N, Rodriguez B, Tran L, Vela J, Brooks M. Telehealth and patient satisfaction: A systematic review and narrative analysis. *BMJ Open* 2017;7(8):e016242. doi: 10.1136/bmjopen-2017-016242.
13. Orlando JF, Beard M, Kumar S. Systematic review of patient and caregivers' satisfaction with telehealth videoconferencing as a mode of service delivery in managing patients' health. *PLoS One* 2019;14(8):e0221848. doi: 10.1371/journal.pone.0221848.
14. Isautier JM, Copp T, Ayre J, et al. People's experiences and satisfaction with telehealth during the COVID-19 pandemic in Australia: Cross-sectional survey study. *J Med Internet Res* 2020;22(12):e24531. doi: 10.2196/24531.
15. Smith AC, Thomas E, Snoswell CL, et al. Telehealth for global emergencies: Implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare* 2020;26(5):309-13. doi: 10.1177/1357633X20916567.
16. Monaghesh E, Hajizadeh A. The role of telehealth during COVID-19 outbreak: A systematic review based on current evidence. *BMC Public Health* 2020;20(1):1193. doi: 10.1186/s12889-020-09301-4.

17. Donaghy E, Atherton H, Hammersley V, et al. Acceptability, benefits, and challenges of video consulting: A qualitative study in primary care. *Br J Gen Pract* 2019;69(686):e586–e594. doi: 10.3399/bjgp19X704141.
18. Snoswell CL, Comans TA. Does the choice between a telehealth and an in-person appointment change patient attendance? *Telemed J E Health* 2021;27(7):733–38. doi: 10.1089/tmj.2020.0176.
19. Annaswamy TM, Verduzco-Gutierrez M, Frieden L. Telemedicine barriers and challenges for persons with disabilities: COVID-19 and beyond. *Disabil Health J* 2020;13(4):100973. doi: 10.1016/j.dhjo.2020.100973.
20. Magin P, Catzikiris N, Tapley A, et al. Home visits and nursing home visits by early-career GPs: A cross-sectional study. *Fam Pract* 2017;34(1):77–82. doi: 10.1093/fampra/cmw099.
21. Australian Institute of Health and Welfare. Australia's health 2016. 5:1 Health across socioeconomic groups. Australia's health series no. 15. Cat. no. AUS 199. Canberra, ACT: AIHW, 2016. Available at www.aihw.gov.au/getmedia/405d9955-c170-4c39-a496-3839059149f7/ah16-5-1-health-across-socioeconomic-groups.pdf.aspx [Accessed 1 March 2022].
22. Hammersley V, Donaghy E, Parker R, et al. Comparing the content and quality of video, telephone, and face-to-face consultations: A non-randomised, quasi-experimental, exploratory study in UK primary care. *Br J Gen Pract* 2019;69(686):e595–e604. doi: 10.3399/bjgp19X704573.
23. McKinstry B, Walker J, Campbell C, Heaney D, Wyke S. Telephone consultations to manage requests for same-day appointments: A randomised controlled trial in two practices. *Br J Gen Pract* 2002;52(477):306–10.
24. Salisbury H. Helen Salisbury: E-consultations are increasing the GP workload. *BMJ* 2021;375:n2867. doi: 10.1136/bmj.n2867.
25. Hirko KA, Kerver JM, Ford S, et al. Telehealth in response to the COVID-19 pandemic: Implications for rural health disparities. *J Am Med Inform Assoc* 2020;27(11):1816–18. doi: 10.1093/jamia/ocaa156.
26. St Clair M, Murtagh D. Barriers to telehealth uptake in rural, regional, remote Australia: What can be done to expand telehealth access in remote areas? *Stud Health Technol Inform* 2019;266:174–82. doi: 10.3233/SHT190791.
27. Moffatt JJ, Eley DS. Barriers to the up-take of telemedicine in Australia – A view from providers. *Rural Remote Health* 2011;11(2):1581.
28. Parker RF, Figures EL, Paddison CA, Matheson JJ, Blane DN, Ford JA. Inequalities in general practice remote consultations: A systematic review. *BJGP Open* 2021;5(3):BJGPO.2021.0040. doi: 10.3399/BJGPO.2021.0040.
29. Healthcare IT News. Goodwin pilots Tyto Care's tele-examination service for Australian seniors. Portland, ME: Healthcare IT News, 2021. Available at www.healthcareitnews.com/news/anz/goodwin-pilots-tyto-cares-tele-examination-service-australian-seniors [Accessed 22 November 2021].
30. Farmer CC, Pang SC, Kevat D, Dean J, Panaccio D, Mahar PD. Medico-legal implications of audiovisual recordings of telehealth encounters. *Med J Aust* 2021;214(8):357–59.e1. doi: 10.5694/mja2.51008.
31. Australian Government Department of Health. Our response to the pandemic. Canberra, ACT: DoH, date unknown. Available at www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/government-response-to-the-covid-19-outbreak [Accessed 13 September 2021].
32. The Royal Australian College of General Practitioners. Guide to providing telephone and video consultations in general practice. East Melbourne, Vic: RACGP, 2020.
33. Australian College of Rural & Remote Medicine. Telehealth. Brisbane, Qld: ACRRM, [date unknown]. Available at www.acrrm.org.au/resources/digital-health/telehealth [Accessed 2 November 2021].
34. The Royal Australian College of General Practitioners. Telehealth and supervision: A guide for GPs in training and their supervisors. East Melbourne, Vic: RACGP, 2020. Available at www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Guidelines/Telehealth-guide-for-GPit-and-supervisors.pdf [Accessed 13 September 2021].

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