

Telehealth: making healthcare accessible for people with diabetes living in remote areas

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For people with diabetes living in rural and remote areas, access to best practice care can be challenging. Many people with diabetes need to travel long distances to seek care, and delays in diagnosis and interventions are not uncommon, leading to poorer health outcomes. Telehealth, which uses technology to remotely exchange data between a patient and their clinician, can assist in bridging the divide of accessible healthcare for those living in rural and remote locations across Australia. This article describes the benefits of telehealth consultations, and barriers and enablers to implementation, as well as providing some practical information on what is needed to initiate such a service. Telehealth can be a useful tool and, if it is well accepted by patients, it could improve the care of people with diabetes living in rural and remote regions.

Living in rural areas is linked with reduced access to healthcare and specialist services which can increase the need to travel long distances to seek care and result in an increase in the time required to access health care services. Such impacts add to the burden on rural populations who statistically have lower levels of income, education, transport and public infrastructure (Australian Institute of Health and Welfare, 2014).

Of note, rates of morbidity and mortality are all significantly higher for those living in rural areas. The prognosis for a person with diabetes living in the country compared with their metropolitan counterparts is significantly impacted.

With around 30% of Australia's population living in regional and remote areas (Paul et al, 2016), there are certainly potential benefits in the provision of telehealth in Australia's rural regions. Telehealth is defined as the "use of telecommunication techniques for the purpose of providing telemedicine, medical education, and health education over a distance" (Australian Government Department of Health, 2008).

The incidence of diabetes is not just higher for people living in regional and remote areas – the people in these areas have lower levels of screening conducted, with 60% of rural Australians not having regular HbA_{1c} testing and, of those above target, 77% failed to have follow-

up (Paul et al, 2016).

Technology can assist in bridging the divide of accessible healthcare for those living in rural and remote locations across Australia. Furthermore, diabetes is a condition that lends itself well to telehealth consultations, as a key component of self-management is effective communication, performed often and performed well, most of which can be done via telehealth.

The benefits of telehealth consultations

Some of the benefits of telehealth in an Australian setting include improved access to quality clinical care and additional professional development opportunities from specialists (Moffatt and Eley, 2010). Further benefits for the patient included decreased time away from work, less travel, reduced expense and higher levels of satisfaction (Robinson et al, 2015).

Additional evidence of the benefits of telehealth consultations are growing, with reported improvements in adherence to recommendations in areas of blood glucose level monitoring, lifestyle changes and medication adherence (Ciemins et al, 2011).

Clinicians also report the benefits of telehealth to include more timely reviews, shared clinical expertise, improved clinic attendance and clarity on the specialists advice to the patient (Ciemins et al, 2011).

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Article points

1. Around 30% of the population live in regional and remote areas.
2. Living in rural areas is linked with reduced access to health care and specialist services, with lower levels of screening conducted and poor rates of follow up.
3. Benefits of telehealth in an Australian setting includes reduced expense, higher levels of satisfaction for patients, and improved access to quality clinical care.

Key words

- Remote
- Rural
- Technology
- Telecommunication
- Telehealth

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Page points

1. A significant challenge of incorporating telehealth is the technological capability.
2. There are a number of enablers to implementing telehealth, including working with existing services that offer specialist telehealth connections.
3. To gain the financial rewards available for telehealth, it is important that practice staff are familiar with all the claimable items numbers and set up clinics in a way to maximise clinical and financial benefits.

Barriers to telehealth

Further Australian research conducted in 2015 set out to improve access to specialist care using technology. The project engaged rural general practices and provided them with support to connect patients via telehealth to specialist services using bulk-billed video consultations. The project also provided them with pathways for upskilling staff in diabetes management. Whilst benefits were noted, such as improved glycaemic control for those above target HbA_{1c} as well as many cost and time benefits, some barriers were also identified (Furler et al, 2017).

Of note, fee-for-service structures of the Medicare rebate scheme in geographically eligible areas do not fund the time needed to coordinate and arrange consultations (Department of Health and Ageing, 2011). Funding is available for the general practitioner and endocrinologist connection, but does not support credentialled diabetes educator involvement in consultations. It was suggested that innovative funding models need to be developed to fully support multi-disciplinary care.

Technology capability was also noted as a significant challenge. Issues included:

- Building IT infrastructure capability.
- Integration of telehealth consultations into existing booking, billing and reporting software.
- The capacity of the health professional team to use and manage IT resources, and the training that may be required.
- The availability of IT support for technical difficulties.
- Uploading and sharing of blood glucose data from the patient to the general practice and again to the specialist.

Enablers

Experienced telehealth practitioners suggest that problems can be avoided if some of the following factors are considered (Furler et al, 2017):

- Administrative support.
- Face-to-face meetings between the specialist, GP's practice nurse and patients should be scheduled regularly.
- Purpose-built telehealth medical units.

Further enablers include an understanding of the community within the local context and the establishment of trust and rapport. For this reason, in-person consultations with new patients are recommended to allow for the non-verbal elements of communication and to build rapport.

To overcome some of these identified challenges, practices may want to consider working with existing services that offer specialist telehealth connections. There is a growing choice of private companies, such as myonlineclinic.com.au, offering to install and manage the IT, training, and set-up.

Other opportunities to work with established telehealth specialist diabetes clinics can be sought through various state and territory initiatives.

In Victoria, the Royal Flying Doctor Service supports diabetes telehealth services to eligible rural areas. Details are available at <https://is.gd/UGaLF5>.

In Western Australia, Diabetes WA delivers a telehealth services to those living with diabetes in rural and remote regions connecting them to specialists in Perth. Details are available at: <https://is.gd/jsFLDP>.

Other models exist throughout Australia and, whether private or publicly funded, utilising existing expertise, resources and experience can be of enormous value when launching a telehealth service model.

Medicare Benefits Scheme

To gain the financial rewards available for telehealth, it is important that practice staff are familiar with all the claimable items numbers and set up clinics in a way to maximise clinical and financial benefits. Further details on Medicare Benefits Scheme (MBS) item numbers for telehealth can be found on the MBS website at: <https://is.gd/hnLT9b>.

Getting it right from the start

Set-up costs can be as little as \$70 for a camera and \$7 per month for Skype connection. The type of technology used for consultations is not restricted to expensive units, although sophisticated cameras and screens with integrated software can certainly improve the experience for all concerned, allowing for better sound and

picture quality as well as fewer problems with connectivity.

Also critical to the success of a telehealth service model is the administration support required for efficient scheduling and communication with the specialist and patients, as well as to set up the consultation and deal with any IT issues that may arise.

Conclusion

Rural and regional communities will always need extra care and support due to the social and health inequalities that exist. Telehealth is a platform that can offer significant benefits in facilitating access to specialist care at the right time, right place and at a potentially lower cost.

Telehealth is a useful tool that should be considered by general practitioners for its applicability not only for diabetes but other health conditions. If it is well-accepted by patients, it can be cost effective for practices and patients and is likely to improve the care of people with diabetes living in rural and remote regions. ■

Further resources for telehealth

- The Royal Australian College of General Practitioners, Telehealth: www.racgp.org.au/telehealth
- Australian College of Rural & Remote Medicine (ACRRM), Telehealth Provider Directory: www.ehealth.acrrm.org.au/provider-directory
- Australian College of Rural & Remote Medicine, eHealth and telehealth: www.acrrm.org.au/rural-and-remote-medicine-resources/ehealth-and-telehealth
- Medicare Benefits Schedule Online, Telehealth: Specialist video consultations under Medicare: www.mbsonline.gov.au/telehealth

“Telehealth is a platform that can offer significant benefits in facilitating access to specialist care at the right time, right place and at a potentially lower cost.”

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