

DIGITAL HEALTH AND CONNECTIVITY IN RURAL AUSTRALIA



Healthy and sustainable rural, regional and remote communities across Australia

Digital health and connectivity are important enablers of the health system in Australia where 30 per cent of the population (approximately 7 million people) live in rural, remote and regional (hereafter rural) communities. Ensuring equitable access to digital health and connectivity is crucial to supporting improved health outcomes for rural Australians.



Existing digital health technologies and the development of new technologies and methods of service delivery have the capacity to increase access to health services in Australia. The COVID-19 pandemic helped to increase consumer acceptance of services using these technologies and stimulated demand for faster, more reliable broadband. As well, governments' investment in digital technologies and infrastructure has increasingly provided opportunities for both economic and social benefit.

However, for many people living in rural Australia, these benefits cannot be realised without two things:

- fit-for-purpose, reliable telephone, internet and Global Positioning System (GPS) connections that are both accessible and affordable
- improvements in digital health literacy in rural communities.

Improved connectivity

Australia's capacity to connect with the world requires various modes of high-speed broadband, including the increasing availability and effectiveness of low Earth orbit satellite internet coverage; innovative applications of mobile communications; and improved digital inclusion.

Digital literacy

Digital literacy is also critical to the realisation of the health, education, social and economic benefits of these technologies.

Most importantly, comprehensive, effective campaigns to increase digital health literacy for rural communities are necessary to ensure that technological solutions meet community need and that cost and options are understood for sound decision making.

Digital health

The term 'digital health' means using technology to improve the healthcare system for providers and patients alike.

This includes:

- telehealth
- electronic health records
- electronic prescriptions
- healthcare identifiers
- electronic referrals
- electronic medication charts
- health screening and asynchronous health care
- health monitoring and prevention apps
- access to trusted data.¹

The Australian Digital Health Agency (ADHA)

The Australian Digital Health Agency (ADHA) aims to improve health outcomes for all Australians through the delivery of national digital health services and systems.

The ADHA's three key initiatives include:

- My Health Record (MHR)
- electronic prescriptions
- telehealth.

The ADHA has also released its National Healthcare Interoperability Plan 2023-2028², which outlines a national vision to share consumer health information in a safe, secure and seamless manner.

ADHA Communities of Excellence

The ADHA has established Communities of Excellence, with the aim of improving health and wellbeing through connected digital health communities in rural areas across Australia. At the time of writing, three communities are participating: Emerald (Queensland); Hedland (Western Australia); and East Arnhem (Northern Territory). Further information on each community's involvement, and a toolkit, are available on the ADHA website.³

My Health Record (MHR)

My Health Record is Australia's secure national electronic health record system. The technology used in My Health Record enables healthcare providers to upload clinical documents to an individual's My Health Record, which ensures that information is current and that other health providers can access critical information.

For rural patients and health practitioners, there are many benefits to using My Health Record. Among these:

- patients and their healthcare providers have access to health information at the point of care, including in an emergency.
- practitioners can avoid time-consuming phone calls and the need to chase other health providers for information.
- patients do not need to repeat their health issues to different health practitioners.
- patients may see health providers in multiple locations, including visits to metropolitan and regional centres.

Patient rights and issues

My Health Record is available to everyone who has a Medicare card or an individual healthcare identifier (IHI).^a Patients manage their information, control who has access to it, and can see what information has been accessed. My Health Record also allows patients to opt-in or opt-out.

While there are many benefits to being part of the My Health record system, consumers report concerns about the privacy of their personal information and cyber security.

Supporting Primary Health Care

The Practice Incentive Program (PIP) eHealth Incentive

The PIP eHealth Incentive encourages general practices to keep up to date with the latest developments in digital health and to adopt new digital health technologies as they become available. It aims to help practices improve administration processes and patient care.

To be eligible for the PIP eHealth Incentive, practices must be registered in the PIP and meet five eligibility requirements. The program is administered by Services Australia on behalf of the Australian Government Department of Health and Aged Care.⁴

Arrangements such as the PIP e-Health Incentive payment should support all forms of rural primary health care practice and never disadvantage current rural general practitioners (GPs).

Electronic prescriptions

Electronic prescriptions are an initiative of the Australian Government Department of Health and Aged Care, designed to make the Pharmaceutical Benefits Scheme (PBS) more efficient and more flexible for patients/consumers.

Electronic prescribing allows prescribers to send patients a token for their prescription, using Short Message Service (SMS) or email. The patient can then take (or send) it to their pharmacy.

The benefits of electronic prescriptions extend both to the patient and to healthcare providers, and include:

- reducing the administrative burden for healthcare providers and organisations
- supporting a patient's choice of prescriber and pharmacy
- reducing prescription and transcription errors
- allowing community members and healthcare providers to avoid exposure to infectious diseases
- maintaining patient privacy and the integrity of personal information.

Individuals with multiple prescriptions can set up an 'active script list' (ASL) with their pharmacist. An ASL allows people to manage their prescriptions by consolidating (and safely storing) their tokens for active electronic prescriptions. This also removes the need for the patient to present each token separately to receive all their medications.

Note: Electronic prescriptions do not fundamentally change existing prescribing and dispensing processes. Paper prescriptions are still available, and patients can still choose which pharmacy they attend to fill their prescription.

Telehealth

Telehealth services can include diagnosis, treatment and prevention, and can have many benefits for people living rurally.^b Telehealth enables a patient to consult with a healthcare provider by phone or video call (in addition to face-to-face consultations), when it has been determined that:

- a physical examination is not needed in a particular circumstance, and/or
- it is not feasible for the patient to see the healthcare provider in person.

Telehealth should be seen as a complement or augmentation of services, not as a replacement for face-to-face health care.

^a IHI are unique numbers assigned to individuals, healthcare providers and organisations that provide health services. More information on health identifiers can be found at www.health.gov.au/topics/health-technologies-and-digital-health/about/healthcare-identifiers

^b A range of fact sheets on telehealth services and MBS items provided by eligible health practitioners can be found on the MBS Online website at: www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Factsheet-Telehealth-Updates-April%202023

The COVID-19 pandemic drove increased government resourcing of telehealth services – many of which have been in use globally for many years – and improved access for patients.

Telehealth can now:

- deliver health services to remote communities, reducing the need for travel
- provide timely access to services and specialists which may not otherwise be available, or be difficult to access
- provide a means to educate, train and support remote healthcare workers on location
- support people with chronic conditions to manage their health
- improve monitoring and communications within the healthcare system
- enable clinical workload relief (allowing rural and remote health practitioners the opportunity to take annual leave or to reduce after-hours work).

Other telehealth or ‘tele-practice’^c programs are designed to provide support services beyond Medicare and private medical practice. TelePBS aims to improve access to support services for people with a disability in rural area, and tele-practice has been used successfully for interventions for people with a disability. A range of resources can be found on the TelePBS website.⁵

MBS telehealth arrangements

- MBS telehealth arrangements allow all Medicare-eligible Australians to access telehealth services for a range of out-of-hospital consultations.
- Medicare telehealth (video and phone) items may be provided by GPs, other medical practitioners, consultant medical specialists, nurse practitioners, participating midwives, allied health providers (including psychologists), and dental practitioners in the practice of oral and maxillofacial surgery.
- GP Level C telephone consultations (longer than 20 minutes) only apply for patients in Remote and Very remote communities (Modified Monash Model categories 6 and 7).
- Patients in a declared natural disaster area can access telehealth services from any GP. Eligible regions are State or Territory Local Government Areas that are natural disaster-declared at the time of the service.

Digital connectivity

The rate of change in developing digital solutions has been phenomenal, including in rural Australia. However, there remain areas of the country where access to, and quality of, digital services have their limitations.

In addition, natural disasters such as bushfires and floods highlight the importance of reliable communications during emergency situations in rural areas. Access to mobile broadband and voice services is also important for the next generation of productivity improvements, such as agricultural applications that use mobile technology to record and process data in the field.

Productivity Commission report

In its 2023 report of a five-year Productivity Inquiry,⁶ the Productivity Commission (PC) noted that:

- Low-quality connectivity outside of Australia’s cities is an ongoing issue and can be likened to a patchwork quilt. Improving regional digital infrastructure could lead to significant economic benefits and productivity gains, particularly among agriculture, forestry and fishing businesses, which typically operate in rural Australia.
- Larger national infrastructure programs generally have a strong emphasis on improving rural connectivity, and funding is also allocated to specific regional initiatives. However, these programs often do not allow for digital literacy components.
 - The National Broadband Network (NBN) provides broadband infrastructure and access to all Australian premises, using a mix of technologies including fixed line connections, fixed wireless and satellite technology.^d
 - The Mobile Black Spot Program (MBSP) seeks to improve mobile coverage across Australia.^e
 - The Regional Connectivity Program (RCP) grants ‘place-based’ telecommunications infrastructure projects in rural Australia.^f
- Enhanced transparency regarding funding allocation, geographic location, technology and price is required for government and industry investment into regional digital infrastructure. Periodic independent program reviews would increase the likelihood of allocation according to need and return on investment in terms of community benefit.
- Infrastructure Australia found that almost half of Australia’s regions (23 of Australia’s 48 regions) have digital infrastructure gaps, as detailed in Infrastructure Australia’s interactive map (See Figure 1, overpage).⁷

‘Digital literacy components’ include building understanding of the various options available from different agencies or companies, pricing and services, and of infrastructure needs relative to location-specific availability.

^c ‘Tele-practice’ is defined as ‘the delivery of services at a distance’. (For example, ‘TelePBS’ is the delivery of positive behaviour support via tele-practice.)

^d See this website for further information: www.nbnco.com.au/learn/regional

^e See this website for further information: www.infrastructure.gov.au/media-communications-arts/phone/mobile-services-and-coverage/mobile-black-spot-program

^f See this website for further information: www.infrastructure.gov.au/media-communications-arts/internet/regional-connectivity-program

Digital inclusion

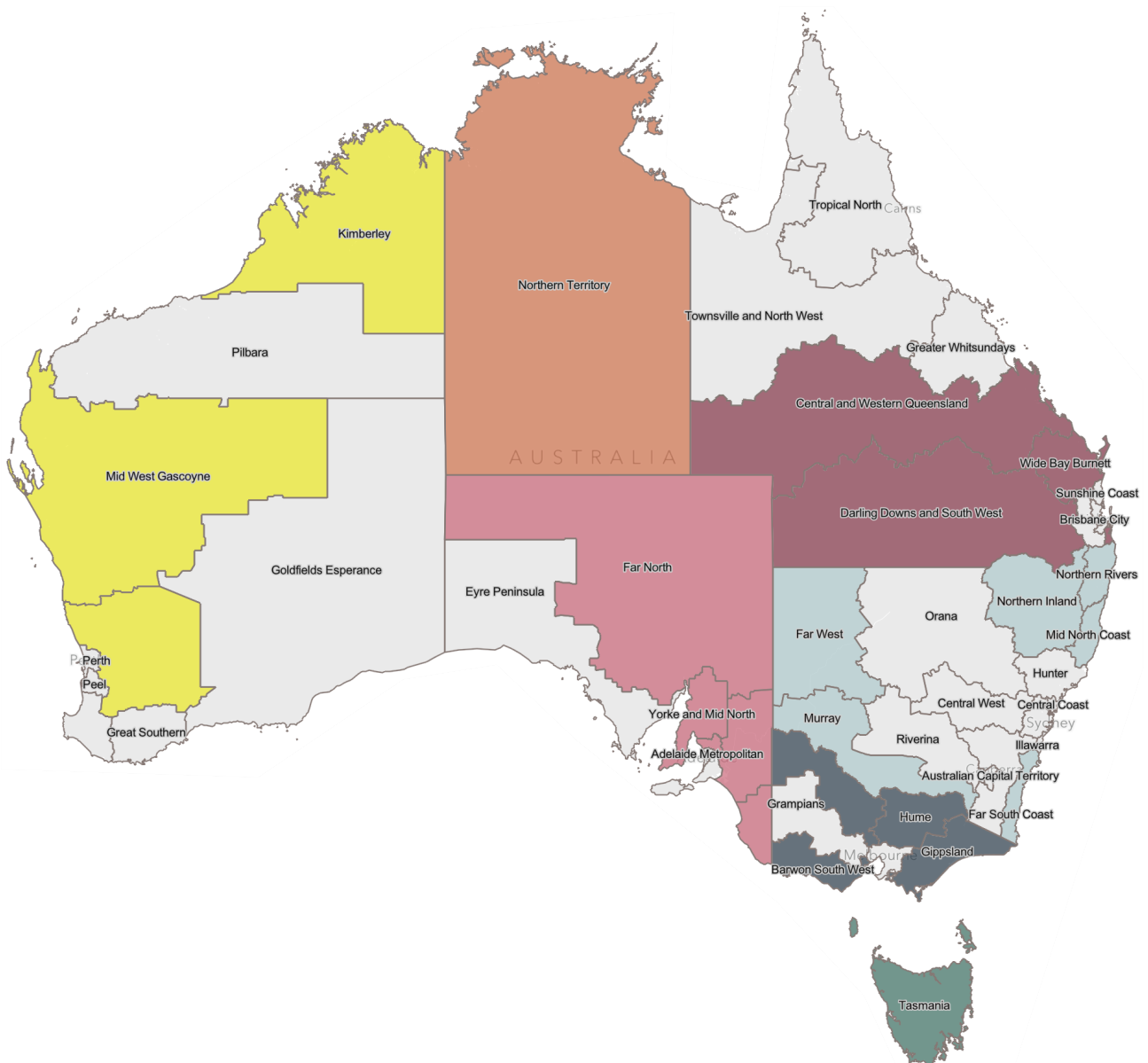
Digital inclusion is about ensuring that all Australians can access and use digital technologies effectively, allowing people to benefit from digital technologies. This includes managing their health, accessing education and services, participating in cultural activities, organising their finances, following news and media, and connecting with family, friends, and the wider world.⁸

In the map at Figure 1, Infrastructure Australia has identified the coloured areas as having broadband and mobile connectivity infrastructure gaps (defined as areas where the available infrastructure 'does not ensure user, business and industry needs are met'). www.infrastructureaustralia.gov.au/regional-strengths-map

Figure 1: Gaps in digital inclusion

The Productivity Commission asserts that improving regional internet connectivity will ensure rural economies flourish and that local residents can access increasingly digitised essential services – such as telehealth, education, banking and government services. Considering rural Australia's significant economic contribution, connectivity is a major economic enabler.

Ongoing efforts are needed to ensure rural communities receive the support they need to improve their digital inclusion.



⁸ For more information on the Digital Inclusion Index, visit the website at www.digitalinclusionindex.org.au

First Nations Digital Inclusion Plan (2023–26)

The National Indigenous Australians Agency notes that many First Nations people actively engage with digital technology to maintain culture and language; increase education and learning; foster leadership; nurture social connections; and encourage entrepreneurship. However, there are some First Nations people, particularly those living in rural locations, who experience challenges in accessing and using digital technologies.⁸

The First Nations Digital Inclusion Plan builds on Target 17 of the National Agreement on Closing the Gap, that:

... by 2026 Aboriginal and Torres Strait Islander people have equal levels of digital inclusion.

The aim of the plan is to improve First Nations digital inclusion, using the Australian Digital Inclusion Index (ADII) to measure improvement. The ADII uses survey data to:

- measure digital inclusion across three dimensions of Access, Affordability and Digital Ability
- determine variability across Australia and different social groups.

The *Mapping the Digital Gap: 2023 Outcomes Report* measures and monitors the digital inclusion gap between First Nations Australians and other Australians. According to the report, people living in the 1,545 remote First Nations communities and homelands are among the most digitally excluded in Australia.⁹

Digital literacy

The Department of Employment and Workplace Relations' 2020 Digital Literacy Skills Framework describes digital literacy as:

... incorporating the ability to search and navigate, create, communicate and collaborate, think critically, analyse information, and address safety and wellbeing using a variety of digital technologies.

'Using digital devices' covers both the physical operations and the software operations in those devices. These skills and knowledge are essential for individuals to participate effectively in today's society.

Some programs that support the adoption of broadband and improve digital inclusion and literacy in rural communities:

- The **Regional Tech Hub** provides independent, free advice about telecommunications services for rural Australians. The aim is to help users navigate often confusing phone and internet options and technical issues. Its website, at regionalttechhub.org.au, provides resources as well as a hotline (1300 081 029) / live chat services on weekdays for limited hours.
- **Better Internet for Rural, Regional and Remote Australia (BIRRR)** is a not-for-profit, 'technology agnostic', apolitical and independent volunteer support, advisory and advocacy group for rural, regional and remote telecommunications. BIRRR is made up of volunteer administrators and a network of volunteer data analysts, technical advisers, website designers, submission writers and other members who have devoted time and resources to help advocate for improvements in regional connectivity. The group advocates 'for all bush telecommunications'. birrraus.com
- The **Good Things Foundation Australia** designs and delivers digital inclusion programs across Australia to close the digital divide for all. One of the programs – Your Health in Your Hands – builds digital health literacy so that people can make informed, confident choices that support their health and wellbeing online. The Foundation is supported by the Australian Government Department of Health and Aged Care and the Australian Digital Health Agency. The foundation also runs the **Be Connected** initiative. www.goodthingsfoundation.org.au
- **Be Connected** is an Australian Government initiative committed to building the confidence, digital skills and online safety of older Australians. Be Connected helps older Australians to learn the basics of digital technology. Free learning resources are available online and there are opportunities to join one of the thousands of community organisations running free computer classes across Australia. beconnected.esafety.gov.au
- The **Regional, Rural, and Remote Communications Coalition (RRRCC)** was formed in 2016 to raise awareness of the important role of connectivity for regional Australians and to ensure that their voices are heard.¹⁰ The coalition has 21 member organisations, including the National Rural Health Alliance. accan.org.au/accans-work/regional-rural-remote-coalition
- The **Your Online Journey** app was created by the Department of the Prime Minister and Cabinet and the Office of the eSafety Commissioner (released in 2019), to extend the benefits of using the internet across all areas of Australia, particularly remote communities. It is targeted at adults in Indigenous communities who are not engaging online, even when internet access is available. www.indigenous.gov.au/teaching-guides/digital-literacy-app-your-online-journey

Table 1: Abbreviations used in this Fact Sheet

ADHA	Australian Digital Health Agency
ADII	Australian Digital Inclusion Index
ASL	active script list
BIRRR	Better Internet for Rural, Regional and Remote Australia
GP	general practitioner
GPS	Global Positioning System
IHI	individual healthcare identifier
MBS	Medical Benefits Schedule
MBSP	Mobile Black Spot Program
MHR	My Health Record
NBN	National Broadband Network
PBS	Pharmaceutical Benefits Scheme
PC	Productivity Commission
PIP	Practice Incentive Program
RCP	Regional Connectivity Program
RRRCC	Regional, Rural, and Remote Communications Coalition
SMS	Short Message Service

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