



## Digital Health in rural and remote Australia tackling the inequality of geography

Australians living in rural and remote areas continue to have shorter lives, higher disease and injury levels, and limited access to and use of health services compared to people living in a city. Dedicated and resilient health professionals continue to care for their patients in an environment where technology cannot historically be relied upon to provide the same level of support as in our major population centres.

PwC has worked extensively in rural and remote Australian health over the past decade, supporting and introducing change enabled by technology. Barriers to progress we have seen include: insufficient funding for contemporary technologies; poor reliability of technology and significant repair times when it fails; and a scarcity of skilled technicians and experienced operators in the local community. This is exacerbated by relatively commonplace extreme weather events, which have a significant impact on technical systems in remote communities.

The unrelenting pressure from the demands to provide care in the community make it difficult for local clinicians to find time for training in new systems and devices. Access to distant clinical specialists is also more difficult for local clinicians and for their patients. Models of care that work so well in major population centres simply do not translate into rural and remote areas. Advances in cloud-based delivery of clinical applications, patient self-help portals and new solutions for interoperability, all create opportunities to enable innovative models of care in rural and remote areas.

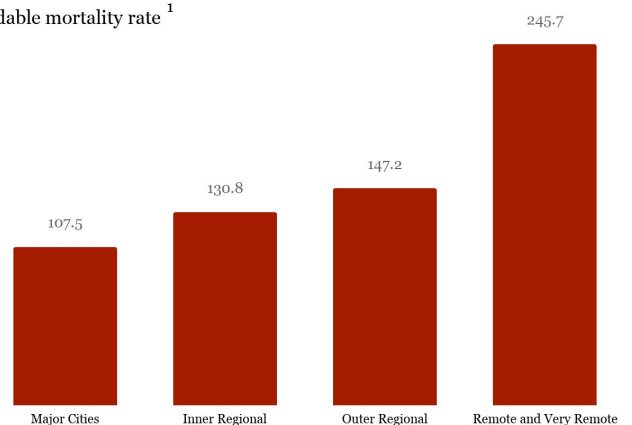
Compared to a traditional patchwork of commercial-of-the-shelf (COTS) solutions, these platforms and software-as-a-service options mean a fit-for-purpose solution is achievable.

With these solutions, infrastructure, distance, cost and lengthy implementations are no longer insurmountable barriers to progress.

**“People living in rural and remote areas have a 2.3 times higher preventable mortality rate than those who live in Major cities.”**

It is critical that solutions to the challenges of delivering rural healthcare focus on the patient, the population and the health system equally.

Avoidable mortality rate <sup>1</sup>



■ Average annual age standardised rate per 100,000

<sup>1</sup> - Persons aged between 0 and 74 years, 2010-2014.  
Source: PHIDU (2018)

**“On average, people in rural and remote communities are 10 times more likely to not see a GP, Specialist or other health professional when needed due to lack of physical access to healthcare services compared to those in major cities.”<sup>2</sup>**

What’s exciting is that digital platforms can now credibly be used as key enablers for these solutions, keeping in mind the following factors to ensure a positive and valuable technology experience for both care providers *and* patients:



**Fit for purpose service models:** Healthcare providers should be empowered by a solution, not hindered by it. They should want to use it, not try and avoid it. Cloud-based mobile applications are available now and represent fast, cost effective technology to enable clinicians to deliver care, and patients to own health outcomes through self-management. eg. focus on chronic disease where informed self-care can improve the quality of life and reduce the burden on clinicians.



**Digital platforms and Software as a Service (SaaS):** Digital solutions open up a myriad of opportunities for monitoring, reporting and proactively addressing the needs of the patient, the community and the population as a whole. Modern SaaS and platform providers have brought solutions from other industries including retail and finance, to healthcare delivery, and have improved patient engagement.



**Mobile solutions:** Infrastructure challenges will not be resolved overnight. There are quick and innovative solutions available for some aspects of care. Mobile phone saturation in rural Australia continues to improve, yet most clinical solutions are not mobile enabled or accessible by patients.



**Invest in real solutions:** Find what works now, and continue investing in its use. Telehealth is a low cost, technology solution that has had long lasting transformative impact, and reduces unnecessary patient travel, however it is an example of using technology to replicate the customary doctor-patient encounter. Is there an opportunity here to redefine the model of care?

Collaboration and community involvement is critical to define and deliver innovative solutions to rural and remote communities. We need to bring community leaders and leading thinkers in health and social service delivery, together with technical and biomedical innovators to define the future of healthcare for the whole of Australia.

Technology barriers of the past are falling away, and now is the time to think innovatively about how to tackle the inequality of geography in Australia’s health system.



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John’s focus is on transformational change he has significant experience managing major technology implementations using various methodologies and with multiple vendors.



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Rowan is an experienced Director in our health technology practice who is passionate about the use of digital solutions to address challenges in healthcare delivery, and improve the end to end patient experience. Rowan’s optimal health system focuses on integrated care between providers and delivers a patient centric model of care.

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<sup>2</sup> - AIHW analysis of ABS 2016. Survey of Health Care, 2016, detailed Microdata, DataLab. Canberra: ABS. Findings based on AIHW analysis of ABS Microdata.