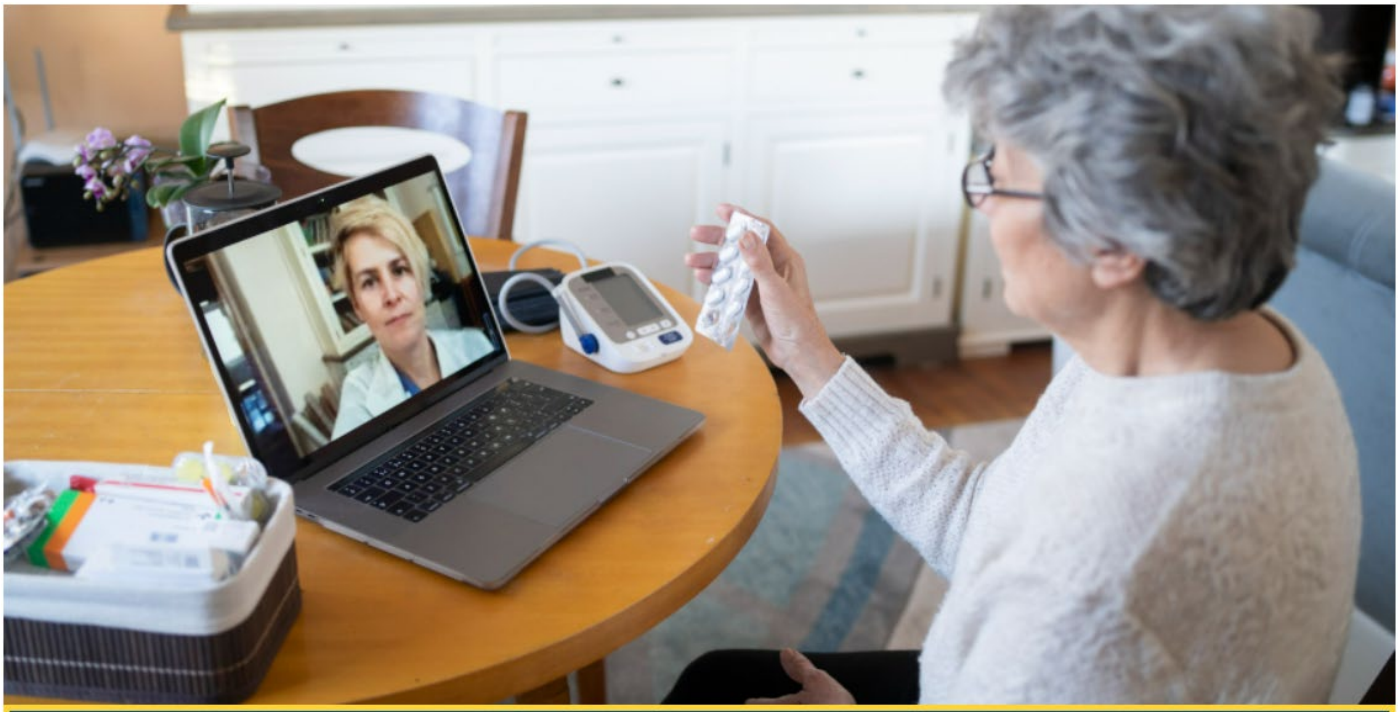


Can technology make a difference in aged care?

Technology is seen as having a potentially transformative effect on aged care. New technologies can connect care and service providers, offer new ways of providing direct care and of doing business.

Technology can also provide data to understand how aged care is performing. Importantly given the workforce pressures confronting aged care, technology that can automate and streamline non-care duties would be able to release carers time to focus on caregiving and improving the quality of care for older people. To benefit the sector needs to know of current and emerging opportunities in aged care for technologies and innovations including those associated with palliative care and having potential to improve care and outcomes.

Addressing Technology Reform

The Aged Care Royal Commission in 2021 found the aged care system to be well behind other sectors in the use and application of technology and in urgent need of government investment. Further, many of the recommendations in the Commission's final report will rely on ICT and digital enablers to implement them. The Department of Health and Aged Care has initiated a digital transformation program which aims to create a better-connected aged care sector by simplifying, digitising and automating points of connection between clients, providers, the software industry, and government. The program of work that would harness digital capabilities to solve ongoing aged care challenges.


palliAGED

Can technology make a difference in aged care?

March 2023

Supporting implementation

Professor Jennifer Tieman

New technologies can play an important part in enhancing health and social outcomes for older people by supporting their physical and emotional well-being, enabling continuing autonomy and independence, and facilitating their social connectedness within their family and community. Digital and technological innovations that support older people and families in maintaining health and well-being which prevent or delay entry to the aged care system need to be considered to address the impacts of population ageing. Technologies that can assist in the effective delivery and management of aged care and which enable nurses and careworkers to have more time to engage in direct resident and client care will be critical to the sustainability of the aged care system. While the aged care sector is seen to be behind other sectors in the use of technology, there is a body of evidence on technology applications within the sector.

Technology exemplars

Socially assistive devices such as care robots or companions are the focus of research interest as their use has been seen as a potential way to increase and maintain social and physical well-being. A review of RCTs using Paro, a 'seal robot' showed such technologies could be beneficial for improving quality of life, biopsychological conditions, and reducing psychotropic and pain medical usage. [1] As with many innovations there is a need to understanding ethical implications associated with their use. [2–3]

Smart home technologies are increasingly being used in the management of chronic diseases in older people. Intervention technologies can be seen within three groups: smart home, characterized by environmental sensors detecting motion, contact, light, temperature, and humidity; external memory aids, characterized by a partnership between mobile apps and smart home-based activity learning; and hybrid technology, with the integration of multiple technologies, such as devices installed at patients' homes and telemedicine. [4] They appear to facilitate control of exacerbations and increase patients' safety by providing support in disease management through the constant monitoring of older people by local and hospital health services.

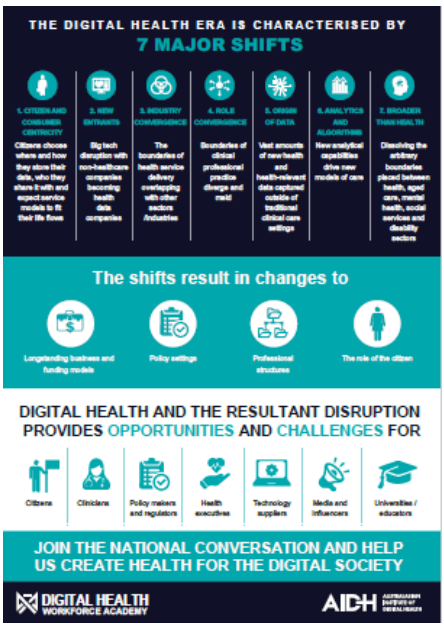
Telehealth and videoconferencing have both been studied for their role in supporting care and in maintaining social connectedness. Telehealth in nurse-led self-care promotion programs appears to have a positive impact on older adults, the evidence base for the most effective organization and delivery is still emerging. [5] Reviews have shown that video cal use in geriatric settings is feasible and is effective in reducing social isolation among

Download the technology in aged care evidence brief (235kb pdf)

The Department's 2022-2025 Data Strategy (1.40MB pdf) seeks to harness the power of data to improve outcomes. It recognises that we can enhance Australians' health, aged care, and wellbeing when data is appropriately linked, shared, and used across these various service settings. This depends on appropriate technology and systems to capture, share and analyses the data to realise knowledge and policy benefits.

Technology, Aged Care and Palliative Care

In 2020, CareSearch produced an InFocus on Digital Health. Since then, there has been an acceleration of digital activity driven not only by Covid-19 but by rapid advances in technology such increases in computing power, datafication, extended realities including virtual reality (VR) and augmented reality (AR), and artificial intelligence (AI) and machine learning.



Download the Digital health fact sheet (162kb pdf)

Fortunately, there are good quality resources and a growing evidence base that can help aged care in the implementation of technology and digital solutions. There is also an emerging set of technology based and digital resources specifically addressing palliative in residential aged care and home care.

palliAGED has always provided access to digital resources including online evidence, practice tools and learning resources, and the palliAGED apps. CareSearch and palliAGED have also partnered with others in the sector to ensure that palliative care and end of life resources for older people, aged care staff and the health workforce are available. This InFocus provides us with the opportunity to profile our technology research and resources for aged care as well as the technology focus of our partner projects working in aged care.

palliAGED

palliAGED is a core palliative care evidence and practice information resource for the Australian aged care sector. In addition to providing summaries of the best available evidence it houses a specific set of technology tools and digital resources.

- The palliAGED apps provide nurses and GPs with easy and convenient access to information to help them care for people approaching the end of their life.
- Modules for aged care nurses act as a gateway to training and understanding in palliative care including symptoms and care issues. The modules can also be licensed for use on an individual aged care service's Learning Management System.
- palliAGED has developed a suite of electronic Practice forms to support care for older people.
- palliAGED search provides people working in aged care with easy and rapid access to the latest peer-reviewed information on issues in aged care.

CareSearch

CareSearch is an online repository of palliative care evidence and resources. Many resources have been created as downloadable and interactive forms and tools to support direct care.

- The Evidence Centre connects you to digital resources including QuickSearch, online pre-appraised palliative care guidance and interactive EBP forms.
- The Health Professionals Centre provides profession specific resources for Nurses, GPs, and Allied Health professionals, many of which can be accessed digitally.

ELDAC

ELDAC is a partner project to CareSearch/palliAGED and is a change program supporting aged care capability in palliative care and advance care planning. It is host to a Technology and Innovation Stream.

- Six toolkits provide online resources to support individuals and services. These can include interactive forms such as the after death audit (648kb pdf) or the Advance Care Planning and Palliative Care Organisational Audit (845kb pdf).
- The Home Care App has been designed to help home care workers to provide end of life and palliative care to their clients.
- The self-care room is an online resource for aged care helping them identify their self-care needs and provide interactive and practical tips and resources to address those needs.
- A new resource Becoming Digitally Ready: a Manual for Aged Care Services (5.6MB pdf) looks at practical and evidence-based solutions to support services.

ARIIA

ARIIA is set up to lead the advancement of the aged care workforce capability by promoting and facilitating innovation and research to improve the quality of aged care for all Australians.

- The Technology in Aged Care topic has gathered evidence of best practice, along with learning and practical resources, on two critical issues relating to technology in aged care: testing frameworks and human factors.

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