

A Framework for Enabling Technology Supported Aged Care at Home



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This framework has been prepared by the **National Ageing Research Institute (NARI)** and **Silverchain**.

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In the spirit of reconciliation NARI and Silverchain acknowledge the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.



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4 About this framework

This framework has been designed specifically for the Australian in-home aged care context. It has been developed to guide aged care organisations in the implementation of technology.

While there are general guidelines available to assist organisations to implement technology into routine practice, the in-home aged care setting has characteristics that require specific attention. In-home aged care staff are welcomed into the homes of older adults to deliver services to meet clients' needs. In-home aged care staff often work alone and remotely from other colleagues, operational support services, and infrastructure.

This framework provides information to assist with implementation of technology within the in-home aged care system, focusing on enablers and barriers to

implementation particularly relevant to in-home aged care. End-users of technology within in-home aged care include the organisation, aged care staff as well as clients and their families.

The framework is designed to be applied before embarking on the procurement and implementation of new technology and can inform an implementation plan. Understanding and addressing enablers and barriers to implementation from the beginning increases the likelihood of successful integration.

This evidence-informed framework was developed based on the findings of a multi-methods research project conducted by a team of researchers, clinicians, and senior managers from the National Ageing Research Institute, and Silverchain – a leading Australian home care provider.



About in-home aged care

In Australia, the Federal Government provides funding for aged care services. Most aged care services are provided to people in their homes.

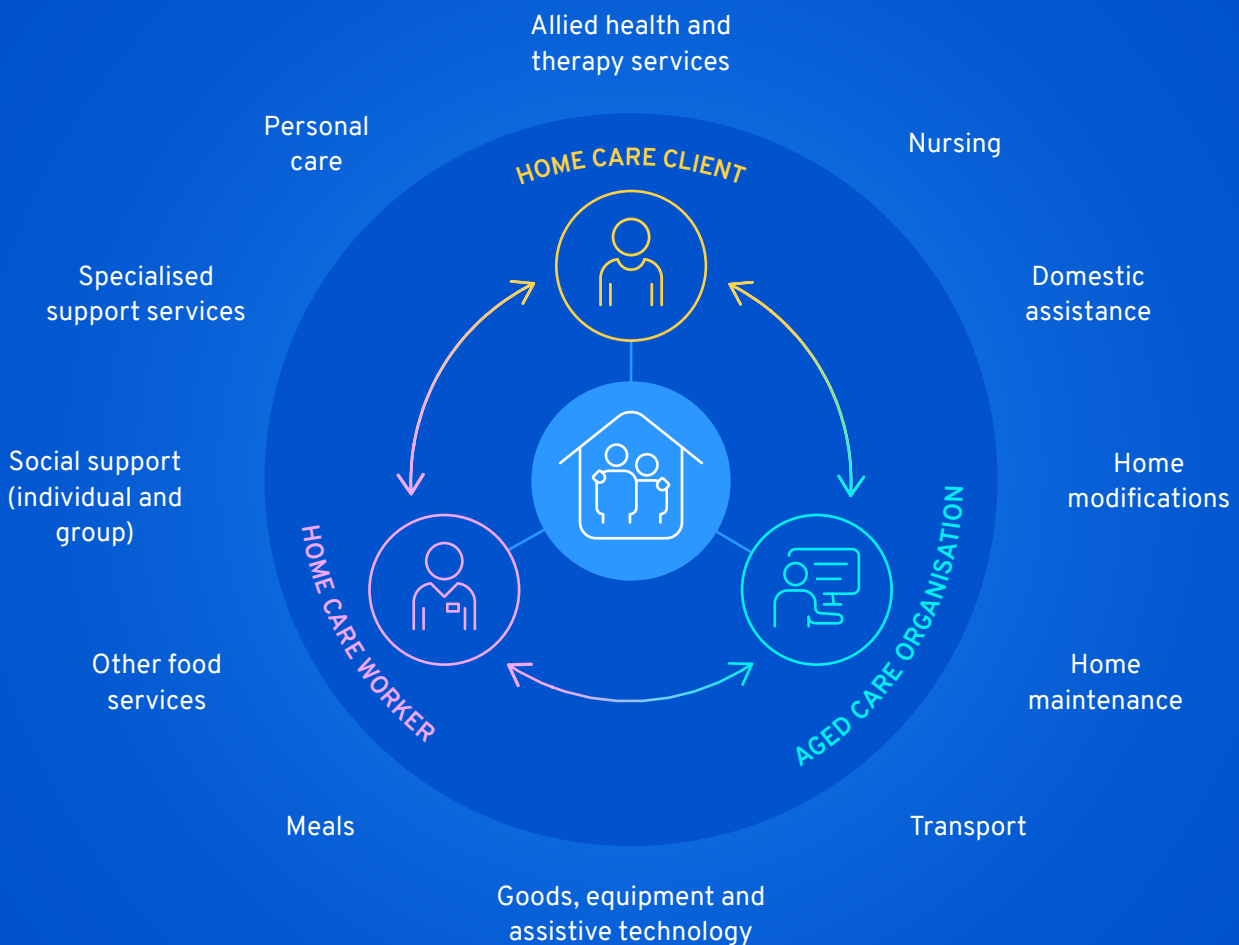
In-home aged care includes health and social services designed to support older adults to remain independent at home for as long as possible. The services available are shown in the diagram below. As of 2024, most in-home aged care services are funded under three key programs – the Commonwealth Home Support Programme (CHSP), Home Care Packages (HCP), and Short-Term Restorative Care (STRC).¹

Services are provided within the home by a range of workers, including personal care workers, support workers, allied health practitioners and assistants, and nurses. The

aged care workforce is decentralised, with in-home aged care staff typically working alone and often beginning and ending their shifts from their own home. In addition to the services delivered by aged care providers, many older people also receive care and support from unpaid carers, including family members.

Those receiving aged care at home are typically older than the general older population: 30% of clients receiving CHSP funding and 41% of those receiving HCP funding are aged 85 or above.² Many in-home aged care clients have complex care needs, including multi-morbidity, frailty, and cognitive decline. The number of comorbidities and level of frailty in people receiving in-home aged care are now comparable to the levels seen in residential care.³ Around 40% of HCP clients live alone.

In-home aged care services



1 There are currently ongoing reforms in the in-home aged care sector. By 2027, it is expected that existing in-home aged care funding programs will be consolidated into a single program – Support at Home.
 2 <https://www.gen-agedcaredata.gov.au/topics/people-using-aged-care>
 3 Inacio et al (2021) Health status and healthcare trends of individuals accessing Australian aged care programmes over a decade: the Registry of Senior Australians historical cohort. Intern. Med. J. 51(5), 712-724.

6 Introducing technology for in-home aged care

Why do we need to consider technology for in-home aged care?

With such a broad range of services provided as part of in-home aged care, there are many ways in which technology could be used to improve and extend service delivery, drive efficiencies, and achieve better outcomes including increased independence and autonomy for clients. Some examples that have already been implemented by service providers include measuring the physiological status of clients, providing health education, appointment making, staff rostering, and communication with other health providers.

While technology is developing rapidly across various sectors, the aged care sector is in the early stages of adopting technology particularly when compared to fields like healthcare. Nevertheless, there is growing interest and action among in-home care providers to incorporate technology in the delivery of in-home aged care.

What do we mean by “technology”?

For the purposes of this framework, “technology” refers to digital technologies, defined as electronic tools, systems, devices, and resources that generate, store, transmit or process data. Digital health technologies are those involved in delivering health and care services and can include mobile health applications, electronic health records, telehealth and telemedicine, data analytics, decision support systems, remote sensors and wearable devices, robotics, and artificial intelligence.

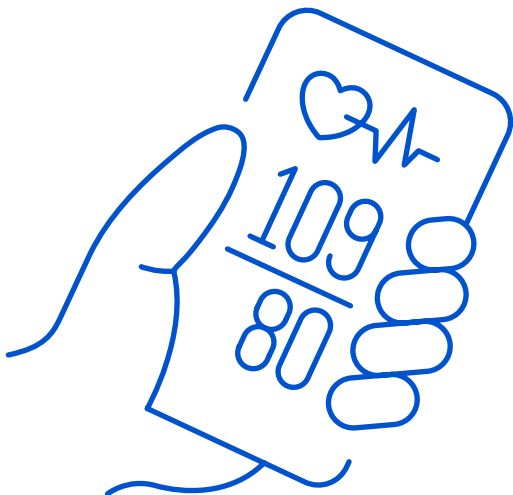
What should be considered prior to implementation of technology?

Before implementing digital technology into in-home aged care, the problem to solve needs to be clearly defined. All potential outcomes and alternative solutions need to be considered, including non-technological ones. A technological solution may not be the best solution.

Particular attention should be paid to the end-users of the technology, how technology will be used and the potential impacts of the technology. In-home aged care end-users include clients, their family and/or carers, staff providing care in the home, as well as support staff in an aged care organisation.

There are several steps that should be taken when implementing technology in aged care. Initial steps drawn from implementation science can include needs assessment, business case development and ongoing monitoring. Existing resources and frameworks are available to guide the development of implementation plans, and these resources can inform the broader aspects of implementation.⁴ There are specific technology implementation resources for aged care such as include a co-designed implementation framework for aged care⁴ and a rapid review outlining suitable technology implementation frameworks for aged care.⁵ These resources can guide providers in developing technology implementation plans specific for the aged care sector. In the context of existing implementation frameworks, this current framework provides evidence-based guidance on the enablers and barriers to implementing technology in the specific context of the in-home aged care sector.

This framework should be used to inform an implementation plan which outlines how the technology will be put into place, and how success will be measured. This will ensure key enablers and barriers are considered as part of the implementation plan.



4 <https://machaustralia.org/resource/implementation/>

5 Meyer C, Ogrin R, Golenko X, et al. A codesigned fit-for-purpose implementation framework for aged care. *J Eval Clin Pract.* 2022; 28: 421-435.



Framework for Enabling Technology Supported Aged Care at Home

Approach to developing the framework

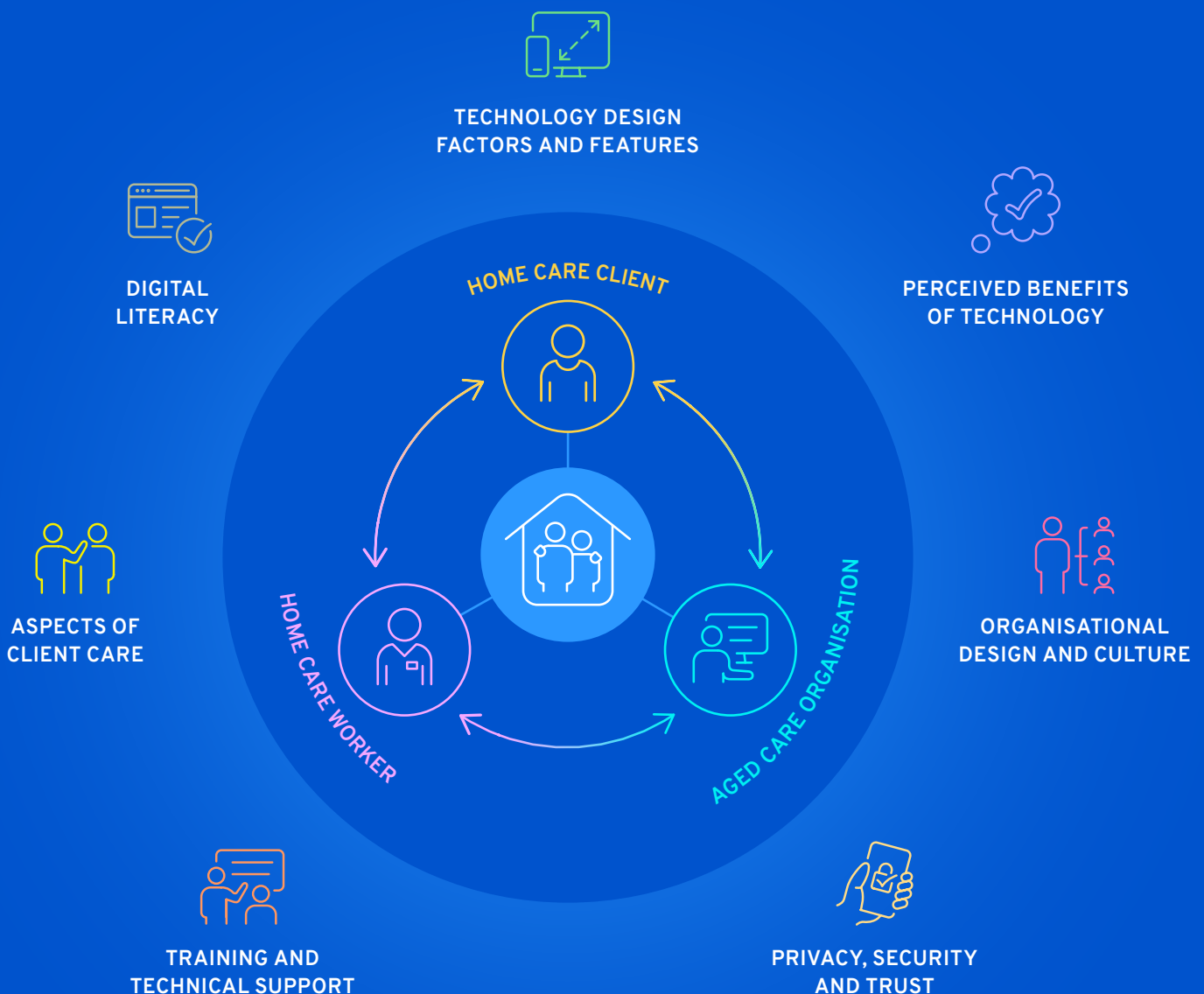
The framework was developed using the results of a mixed-methods research project conducted by the authors. More information on the research studies, including key findings, is available in the Appendix.

Overview of the framework

This framework has seven main themes represented in the diagram below.

Enablers and barriers to implementation for each theme are presented. Practical tips are also provided, for example, ways to strengthen enablers and eliminate or reduce barriers. These tips may increase the likelihood of successfully integrating technology into in-home aged care. When reading through the framework, there are notes sections related to each theme, where any locally relevant information can be recorded.

An example checklist is also included which can assist with summarising any enablers and barriers and can be used to develop an implementation plan.



Themes



1 TECHNOLOGY DESIGN FACTORS AND FEATURES

Technological hardware, software design, and infrastructure



5 ASPECTS OF CLIENT CARE

Interactions, processes, and activities related to providing care to clients



2 PRIVACY, SECURITY AND TRUST

Personal and data privacy, confidentiality of information, personal security and trust in people and technology



6 DIGITAL LITERACY

Digital literacy, client and staff confidence in using technology, preferences and prior experience



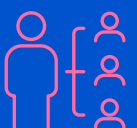
3 TRAINING AND TECHNICAL SUPPORT

Formal and informal knowledge exchange, skills acquisition, and support for problem solving technical issues



7 PERCEIVED BENEFITS OF TECHNOLOGY

Attitudes towards technology and perceived benefits of technology



4 ORGANISATIONAL DESIGN AND CULTURE

The culture of the in-home aged care organisation, and the approach used to develop and implement policies, processes and procedures

How to use the framework

This guide is designed to assist any member of the aged care workforce or team who plans to implement/introduce digital technology into in-home aged care.

Before using this guide, clearly define the need or opportunity and identify the best solution to achieve the desired outcome, including any alternatives to technology. Consider who is potentially impacted by a technological solution.

If technology is part of the preferred solution, this framework can be used to develop an implementation plan.

Consider each theme and its impacts on the identified solution i.e. enablers, barriers and practical tips for implementation. A helpful Implementation Checklist is provided where you can provide details about your solution. You can list strategies to overcome barriers and strengthen


enablers to achieve the best outcome, drawing on the information provided in this framework. The checklist will be useful in developing your implementation plan.

It may be beneficial to use the checklist at multiple timepoints during implementation. For example, certain themes may be particularly relevant prior to selecting the technology, whereas others may be more relevant after the technology has been selected for piloting or when the technology is being rolled out at scale across an organisation.

For information about the evidence that underpins this framework, please refer to the supplementary information available at www.nari.net.au.

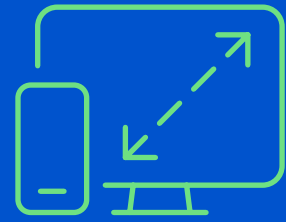


How to use the framework

- 
1. Before using this guide, you need to know what gap or need you are addressing and what outcome you desire.
 2. If technology is part of your solution, you need to conduct all due diligence in choosing, testing, and procuring the technology.
 3. For implementation, you need to understand who is impacted by the potential technological solution.
 4. Read the information on the seven themes describing enablers, barriers and practical tips that should be considered prior to implementation.
 5. A notes section is available at the end of each theme to record aspects that are particularly relevant to your individual situation.
 6. Complete the Implementation Checklist (on pages 26-29) bringing together all relevant information for your individual situation.
 7. Use your knowledge to help in decision making about whether to implement the technology, and to inform your implementation plan.

1 Technology Design Factors and Features

Technological hardware, software design, and infrastructure



Implementation Factors

1.1 Familiarity and ease of use

Technology needs to be simple to use by home care clients and staff no matter their experience, preferences, interests, abilities, or available support.

Enablers

User-friendly technology – with simple functions and designs – is more likely to be used by staff and clients and provides a better experience.

It is important to understand how platforms are used by end-users (compared to how they were designed to be used).

Barriers

Technological features do not always work as intended. Clients may call on in-home aged care workers to support technology use so consider the impact on workload.

Some features of technology may not work with home care clients with disabilities or physical limitations.

Practical Tips

- Ensure that end-users (home care workers and/or clients) using the technology are part of the consultation process from the start of implementation.
- Determine the appropriateness of key features, particularly for clients who have specific impairments. *Example - colour contrast of buttons may be a good design feature for clients living with dementia, and apps with high resolution and/or larger font are required for people with limited vision.*
- Be aware of the rapid developments in technology, and that technology can become obsolete very quickly.

1.2 Technical Issues

Technical issues are common, and can include loss of internet connectivity and unexpected glitches.

Enablers

Having basic information technology (IT) skills, IT awareness, and regular use of technology will reduce technical issues.

Staff awareness of potential issues can help anticipate problems before they arise.

Barriers

Unexpected glitches during use can interrupt the provision of care provided by in-home aged care workers.

Poor internet connectivity can interrupt the transmission of data.

Practical Tips

- Identify potential technical issues that may arise with in-home aged care workers and clients during each consultation.
- Provide training for in-home aged care staff and clients so that they can anticipate, identify, and troubleshoot problems on their own as much as possible.
- Ensure that technical support is readily available in case the problem needs to be escalated by home care workers and clients.

1.3 Infrastructure

Reliable technology infrastructure is essential to ensure that electronic information can be collected, stored and transmitted without disruptions.

Enablers

Having sufficient human resources (e.g. engaged managers, IT staff) and technological infrastructure such as IT devices can support the implementation of technology.

Barriers

A lack of technology infrastructure, including inadequate data and digital infrastructure may lead to poor connectivity, and difficulties in storing and transmitting client data.

Wider infrastructure issues may impact performance of technology (e.g. poor connectivity such as black spots or slow internet speeds).

Practical Tips

- Be aware of wider infrastructure issues which may impact the technology you select, how widespread these issues may be in your organisation and geographic location, and what their impact would be on care delivery.
- Ensure and provide back-up systems should the technology fail. *Example - have paper-based forms or provide Wi-Fi dongles in areas with known poor connectivity for in-home aged care workers and clients.*

1.4 Familiarity and interoperability

Devices that are familiar to end-users and have interoperability (i.e. can exchange information) across devices and systems can help with client care.

Enablers

Home care clients have access to a range of technologies in the home already, such as smart phones, computers, and tablets, so using them for novel purposes can reduce lead time for successful implementation.

Barriers

Systems or technologies which are not able to exchange information with other systems or technologies can inhibit the uptake and usefulness of technologies.

Practical Tips

- Consider the in-home aged care staff and clients' previous experience with technology, including operating systems, devices, and purposes (both personal and professional). Understanding experience (if any) and preferences will help inform the selection of technologies, and the training required to support implementation.
- Take time to understand how the new technology will be incorporated into the current digital ecosystem (e.g. with current systems, apps, and devices within an organisation), as well as how it may be incorporated into the digital ecosystems of clients, where relevant.

Notes

2 Privacy, Security and Trust

Personal and data privacy, confidentiality of information, personal security and trust in people and technology



Implementation Factors

2.1 Client privacy

Home care clients have significant concerns about their privacy when using technology.

Enablers

Clear and concise information regarding organisational policies and procedures on how client data is managed, stored, and communicated may aid engagement.

Barriers

Home care clients are particularly concerned about being scammed. They may resist the use of technology due to concerns about their privacy and personal information being compromised.

Lack of trust in technologies' safety-enhancing ability coupled with privacy concerns may impede implementation.

Practical Tips

- Reassure home care clients about the reasons behind providing private information when using technology, and explain how their privacy will be protected.
- Provide home care clients with the information they need to distinguish legitimate communication from their service provider from a fraudulent one.
- Encourage home care clients to be vigilant about how they share their data, identification checks, and consent to sharing of information, and provide information on how to do this.
- Put strategies in place to specifically alleviate in-home care clients' privacy concern around safety-enhancing technology (i.e. nominate the clinicians who will be monitoring the data from the technology and let the client know if it is not monitored by clinicians but other staff).
- Show clients and in-home aged care staff examples of how technology can improve their safety, to emphasise potential benefits and improve their perceptions of the usefulness of the new technology.
- Establish a clear process which designates the decision maker for using safety-enhancing technology. In some circumstances, this may be the client and in others, a family member. In most cases, the client should be the decision maker. If a person has cognitive impairment that impedes decision making, then others may need to have input.

2.2 Reliability and Trust

Unreliable technology compromises the delivery of care.

Enablers

Testing of technology in a variety of scenarios/situations prior to implementation can help ascertain reliability.

Using familiar technology can instil trust for clients, staff, and organisations.

Barriers

Unreliable technology can inhibit trust in technology for improving the delivery of care.

Practical Tips

- Test (and retest) new technology within the complex “real world” of in-home aged care as part of the implementation phase.
- Common issues that may impact care and reduce trust in technology include reduced internet connectivity, poor battery life, and slow processing speed.

Notes



3 Training and Technical Support

Formal and informal knowledge exchange, skills acquisition, and support for problem solving



Implementation Factors

3.1 Training for staff

Training ensures that staff are competent and confident in using technology to support the delivery of care.

Enablers

Ongoing training and support accelerate familiarity and confidence with technology.

Giving staff paid time to test and orientate themselves with the technology increases their confidence and helps to identify potential technical issues.

Staff often prefer group training sessions where peers can learn together.

Barriers

Training sessions that are long and information intensive can be overwhelming.

Lone workers who are travelling have limited opportunities for formal face-to-face training.

Training can be time-consuming, and impact staff workload.

Practical Tips

- Home care organisations need to provide staff with extra paid time to orientate themselves to the technology.
- Less is more: avoid overwhelming staff during training sessions with too much information. Have multiple short training sessions instead of one longer session. This allows key points to be repeated and an opportunity for staff to apply skills between sessions.
- Simulate real-life situations in training where possible to improve familiarity.
- Provide group training sessions so peers can learn together if they prefer.
- Consider online training modules or self-orientation documents for staff who are not able to attend in-person training sessions.
- Consider different styles of adult learning to maximise understanding and take-up.

3.2 Training for clients

Training for clients is another important aspect so that the client is comfortable and confident with the use of technology.

Enablers

Enthusiasm from older clients in wanting to use technology supports uptake of training opportunities.

Making training sessions engaging improves learning.

Barriers

Clients requesting training from in-home aged care staff in the use of technology is not often allocated as part of workload and can be time consuming.

Practical Tips

- Engage a client's support network when implementing new technology where possible.
- Provide tailored resources to assist clients with their technology needs, and support clients to become familiar with technology.
- Time and patience is needed when providing training to clients to avoid learner frustration.
- Enable clients to be able to contact in-home aged care workers for help in using technology when needed.

3.3 IT technical support

Having staff who can be technology champions and providing technical support can help in-home aged care staff with frequently asked questions or troubleshoot problems.

Enablers

Ongoing IT technical support can help staff if they are unsure of certain features of technology or troubleshoot issues that arise.

Responsive IT technical support can help staff resolve issues quickly when they arise.

Frontline staff and champions can support each other and develop a positive implementation culture.

Barriers

Technical jargon is not always understood by in-home aged care workers, which can slow down resolving technical issues.

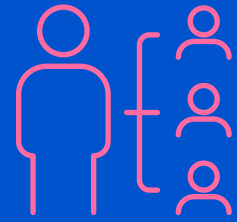
Practical Tips

- Technology champions and in-home aged care staff who are confident with technology can support colleagues with lower technological confidence. Having self-nominated frontline staff as champions can create a positive organisational culture relating to technology implementation.
- If possible, ensure that dedicated IT technical support is responsive to issues that arise, and can manage them on a timely basis – ideally, during the home visit, with minimal disruption to care.
- Use lay terminology and avoid technical jargon during training and troubleshooting.
- Have clear instructions on when further support should be sought after troubleshooting individually. *Example - recommend a time limit for in-home aged care staff to individually troubleshoot before escalating to IT technical support or leaders for assistance.*

Notes

4 Organisational Design and Culture

The culture of the in-home aged care organisation, and the approach used to develop and implement policies, processes and procedures



Implementation Factors

4.1 Digital readiness

An organisational culture of digital readiness and acceptance of change will facilitate transition to new technology.

Enablers

Positive organisational culture that is open to innovation and a culture of digital readiness within an organisation and its clients facilitates implementation.

Engaging in-home aged care staff with clear communication as part of the implementation can improve the process.

Barriers

Lack of senior management commitment to support technology implementation may limit its success.

Lack of planning can also reduce staff digital readiness towards technology implementation.

Practical Tips

- Actively involve all stakeholders at all phases – from developing a shared vision and identifying the need for new technologies, identifying potential enablers and barriers to implementing technology, and in developing standard operating processes and procedures.
- Ensure in-home aged care staff have open lines of communication with senior staff so they feel supported.
- Begin implementation only after receiving feedback from staff on the implementation plan; record and act on the feedback, and explain outcomes and decisions to staff.
- Assess organisational readiness to change including interest in the specific technology, and for staff, potential (positive or negative) impacts on their role.
- Stage and stagger rollout of technology to address unforeseen technical issues.
- Acknowledge that business priorities may change, and the implementation process needs to be flexible.

4.2 Confidence and acceptance of technology

For successful implementation, aged care workers need to have confidence in and accept new technologies.

Enablers

Individuals who have confidence in using new technology are more likely to support and champion the implementation.

Barriers

A lack of IT and peer support are barriers to sustained technology usage and adoption.

Technical jargon is not always understood by in-home aged care staff and clients, which can slow down the resolution of technical issues.

Practical Tips

- Avoid the use of technical jargon, and use lay terms during training and troubleshooting.
- Refer to “Training and Technical Support” for more tips to improve staff and client confidence and acceptance of technology.

4.3 Impacts on workload

Planning for the short-term impact of the introduction of the technology is critical.

Enablers

Sufficient piloting helps to identify and resolve early technical issues prior to launch.

Providing sufficient time for staff to orientate themselves to technology reduces workload due to orientation.

Barriers

New technology can temporarily increase staff workload and reduce productivity.

Practical Tips

- Pilot technology by setting up “real-world” test units prior to full roll out of technology to ensure it meets the needs of the workforce.
- Consider incentives such as providing additional time, which can support the adoption of technology.
- Plan for reduction in productivity as users become familiar with the new technology and workflow. Communicate this allowance to staff.

4.4 Communication

Effective communication with stakeholders during the implementation of technology is essential.

Enablers

Tailored communication strategies with stakeholders can enhance the effectiveness of technology implementation.

Due to the nature of in-home aged care, communication strategies should be tailored to those who work on the road.

Barriers

Poor communication of the implementation plan to all stakeholders can negatively impact implementation.

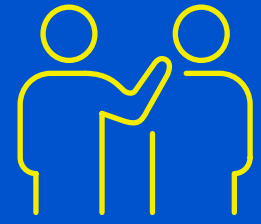
Practical Tips

- Set up regular forums to inform staff and obtain feedback. These should occur in the early stages of implementation.
- Create peer support and communication opportunities for lone workers to learn about technology.
- Prepare a detailed communication plan for implementation to ensure information is adequately shared with relevant stakeholders.
- Streamline communication processes and regularly review feedback from users and technical support reports to identify gaps in communication, particularly if the communication strategy is dependent on technology.
- Having a project lead, in-person, on the ground can ensure the technology is front-of-mind during technology implementation.

Notes

5 Aspects of Client Care

Interactions, processes, and activities related to providing care to clients



Implementation Factors

5.1 Client preferences for technology

In-home aged care clients have diverse preferences for technology, based on their experience with technology.

Enablers

Some clients are enthusiastic about technology and are willing to adopt and learn how to use technology that may be of benefit to them.

Some types of technology have greater uptake among clients. *Example - many in home care clients prefer using tablets to computers or smartphones.*

Barriers

Use of technology may be seen to depersonalise care. Many clients prefer face-to-face rather than remote contact.

One-off or insufficient screening of preferences for clients may fail to identify level of readiness for technology.

Practical Tips

- Highlight the introduction of the technology particularly technological solutions that improve delivery of timely, individualised and quality care.
- Avoid assumptions about clients' attitudes, abilities, and competency towards technology, and instead, assess client preferences for technology to identify suitable technological options.
- Identify suitable 'early adopters', to trial the technology.
- Ensure clients' technology choices are clearly indicated in the client record and create alternative pathways for clients to receive care that are not reliant on technology. *Example - ensure paper-based copies of forms are available in addition to electronic versions.*



5.2 Suitability of technology to enhance care

Technology needs to be fit for purpose and enhance care, without taking away from the quality and personalisation of care.

Enablers

Technology considered fit for purpose by staff, and has an identified case, is more likely to be adopted.

Barriers

Not all in-home aged care tasks can be digitally supported for all clients. *Example - videoconferencing technology may be beneficial for social support, whereas technological solutions may not be appropriate for care tasks such as showering or laundry washing.*

In-home aged care clients may have lower general technology use and may not want to use technology to receive care.

Practical Tips

- Be aware of technological design limitations that may affect the suitability of technology for clients. *Example - touchscreens require finger dexterity, which may be difficult for clients with particular physical limitations.*
- Technology designed with the needs of the in-home aged client in mind or co-designed with in-home aged care staff and/or clients may be more suitable to use for care. *Example - falls detection devices designed for the home environment may be more suitable than those developed for the residential aged care setting.*
- Acknowledge that technology is not suitable for every visit.

Notes

6 Digital Literacy

Digital literacy, client and staff confidence in using technology, preferences and prior experience



Implementation Factors

6.1 Staff self-efficacy and preferences for technology

Low self-efficacy among in-home aged care staff can result in reduced preferences for technology and affect implementation.

Enablers

Staff with a preference for (or willingness to trial) technology-supported care may be useful 'early adopters'.

Sufficient digital literacy support and administration time allocated during implementation will improve self-efficacy of stakeholders.

Barriers

Mandating the use of technology for some activities may be detrimental.

Practical Tips

- Gauge the willingness of staff (at onboarding) to use technology supported care and ensure regular review.
- Focus on individuals who have an interest in technology for the initial adoption of the technology.
- Understand how technology may help staff members reach their career goals and communicate this clearly to facilitate engagement.
- Providing adequate and appropriate training and support can enhance staff self-efficacy and increase preference towards technology.



6.2 Level of digital literacy

Assessing levels of digital literacy and technological competency in both staff and clients is crucial and can vary depending on experience with technology.

Enablers

Successful implementation of technology involves ensuring that all staff possess basic technological competency and skills.

Understanding clients' technology skills and competencies is important.

Using a variety of communication methods and modes targeted at different levels of digital literacy can improve communication.

Barriers

Being unfamiliar with technology can lead to resistance to its implementation.

Some in-home care clients may only use a device (e.g. a smart phone) for a single task, rather than making use of all functions.

Practical Tips

- Assess the ability of clients and staff to use technology, and identify sensory impairments and low literacy skills that may impede use.
- Avoid assumptions that staff, clients, or carers can use all the features of a device or are competent in using technology for seemingly simple tasks. *Example - a mobile phone may be used for voice calls only; some people may have difficulty in booking appointments using their smartphone.*
- Target those with high digital literacy for initial piloting of the technology.
- Case managers should assess and understand how clients interact with technology as well as determine a client's level of skill across many different types of technology. This can enhance individualised care.
- Identify minimum competencies when recruiting and onboarding staff and upskill those who may not meet them.
- Provide additional time and extra training for those who have low technology literacy to improve confidence and use of technology.
- Consult in-home aged care staff at all levels to ensure training and support materials for implementing technology is easy to follow and free of jargon.

Notes

7 Perceived Benefit of Technology

Attitudes towards technology and perceived benefits of technology



Implementation Factors

7.1 Usefulness

When technology is seen as useful by clients or staff, it will be more readily adopted.

Enablers

Clients or staff who have experienced the usefulness of technology can support implementation.

Barriers

Technology is considered less useful if perceived as time consuming, unreliable, and poorly integrated into existing workflows.

Staff perception that the technology is not useful inhibits implementation.

Practical Tips

- Active consultation with all stakeholders including clients, staff, and management is crucial in ensuring stakeholders are on the same page.
- Clearly communicate the potential usefulness of the technology and the benefits to staff or clients during the planning process.

7.2 Awareness of benefits

Staff and clients need to understand the need and potential benefits for new technologies before they are implemented.

Enablers

Active consultation with stakeholders including clients, staff, and management is crucial for the successful implementation of technology.

Barriers

End-users may be apprehensive about new technologies if they don't understand the benefits for themselves, and if they are not provided with an opportunity to discuss their concerns.

Practical Tips

- Link the technology to what is important to in-home aged care staff and clients as a way of increasing awareness of its benefits.

Notes



Successfully integrating technology into the delivery of in-home aged care services requires ensuring that technology enhances service value and improves the quality of care. The implementation of technology to support clients, staff and organisations requires thorough planning and allocation of resources.

This framework provides information to facilitate the implementation of technology into the in-home aged care system. Enhancing understanding and addressing both enablers and barriers to implementation can significantly increase the likelihood of successful technology integration.



Implementation Checklist

1. What gap is being addressed?

2. How will the identified technology address this gap?

3. Who are the key stakeholders involved in successful implementation of this solution?

Don't forget clients, families and all staff who will interact with this solution.

4. What is the risk of...

a. Implementing the technology?

b. Not implementing the technology?

5. What will success look like?

i.e. how will you evaluate the implementation of this technology? What will you measure to demonstrate this success?

a. Clients/Carers:

b. Frontline staff:

c. Management:

d. Other relevant stakeholders:

6. List the enablers, barriers and strategies related to:

1. Technology Design Factors and Features

- Design features
- Technical issues
- Infrastructure
- Familiarity and interoperability

Enablers

Barriers

Strategies

2. Privacy, Security and Trust

- Client privacy
- Reliability and Trust

Enablers

Barriers

Strategies

3. Training and Technical Support

- Training for staff
- Training for clients
- IT technical support

Enablers

Barriers

Strategies

4. Organisational Design and Culture

- Culture
- Digital readiness
- Confidence and acceptance of technology
- Impacts on workload
- Communication

Enablers

Barriers

Strategies

5. Aspects of Client Care

- Client preferences for technology
- Suitability of technology to enhance care

Enablers

Barriers

Strategies

6. Digital Literacy

- Staff self-efficacy and preferences for technology
- Level of digital literacy

Enablers

Barriers

Strategies

7. Perceived Benefits of Technology

- Usefulness
- Awareness of benefits

Enablers

Barriers

Strategies

Appendix: Evidence informing the framework

Approach to developing the framework

The development of this framework was based on an evidence-based mixed-methods research approach that consisted of six components. This section briefly explains the research method of each of the components, to illustrate how the information used in this framework was derived. These components were completed in 2022 and 2023.

CLIENT SURVEY

A client survey was conducted by Silverchain, a large Australian in-home care provider. The purpose of the client survey was to determine the digital literacy amongst Silverchain clients receiving home care and determine their perspectives on the use of technology in in-home aged care. A total of 631 Silverchain clients completed the survey.

LITERATURE REVIEW

The scientific literature was reviewed to identify the types of technology used in in-home aged care and identify the enablers and barriers to technology implementation in in-home aged care. The review included international perspectives of in-home aged care and found 40 peer-reviewed publications.

STAFF SURVEY

Silverchain staff were invited to complete a staff survey to determine the level of digital literacy amongst home care workers and determine the staff's perspectives on the use of technology in in-home aged care. The survey was open for 3 months, and 267 staff completed the survey from a variety of disciplines.

STAFF INTERVIEWS

As an extension to the survey, Silverchain staff were invited to complete interviews further exploring in detail the perspectives of aged care staff delivering in-home services, particularly enablers and barriers within the context of roles and tasks. A total of 18 staff completed interviews.

CO-DESIGN WORKSHOP

The purpose of the co-design workshop was to validate the technology implementation themes identified from the previous four components, confirm the language to be used in the framework, discuss the enablers and barriers, and identify practical strategies. A total of 12 Silverchain staff participated in the workshop.

CASE STUDY

A draft of the framework was provided to a Silverchain team who were preparing to implement a specific piece of technology into in-home aged care. This provided case study information. The team implementing the technology used the draft framework to develop an implementation plan and provided comments and suggestions regarding the framework including its format, content, ease of use, and acceptability. This information contributed to the final version of the framework.

For more detailed information on this evidence, visit www.nari.net.au or by request info@nari.edu.au.





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