



Charles Sturt
University

Technology for Homes Program Evaluation

Summary of Findings
December 2020

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The opinions and stories within this report may or may not be generalisable to broader populations or other people in similar situations; rather, they are the unique perspective of the person who shared them. Pseudonyms have been used to ensure anonymity, but all quotes are unaltered to reflect participant opinions accurately.

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Glossary

Older adults/older adult

Refers to people/persons aged 65 or over.

Carer

Refers to a person who is living with, caring for, or supporting an older adult. A carer may be a professional care giver, family member(s), a person supporting an older adult, a wife, husband or partner, a child, parent, or friend.

TFH

Refers to MidCoast Assist's Technology for Homes program.

Technology buddy

Refers to a volunteer involved in TFH and paired with an older adult to teach them how to use technology and provide ongoing support.

Facilitator

Refers to a person who is in some way helping to facilitate TFH but is not a technology buddy, including external trainers.

Service provider

Refers to those organising TFH, including MidCoast Assist staff and their funders.



Executive Summary

MidCoast Assist (Ageing Services), as part of MidCoast Council, received Commonwealth Home Support Programme Innovation Funding to implement the Technology for Homes (TFH) program for older adults in the MidCoast area, including Tea Gardens/Hawks Nest, Forster/Tuncurry and Stroud. This report details the first time TFH has been delivered, and the delivery model is still under development for future iterations. For instance, the TFH program delivery model included training technology buddies on teaching older adults to use technology. This report recommends that such training be acknowledged as an integral part of the delivery model and should be provided in future program instances.

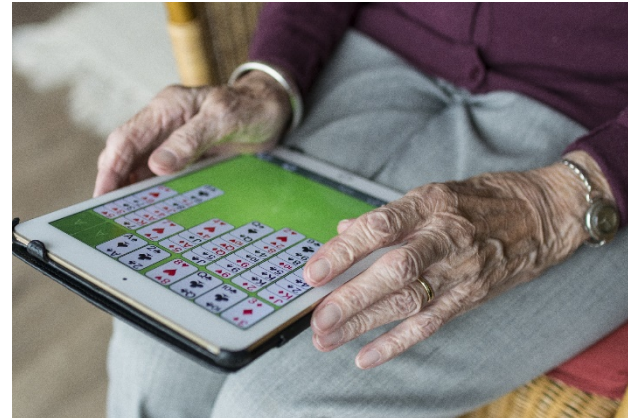
An independent evaluation was sought out to assist in further developing the program. For that evaluation, an investigative team from Charles Sturt University (CSU) was contracted by the Council. Team members attended several events that marked the program's beginning and observed how the program was administered. Moreover, the team conducted interviews and pre- and post-program surveys with key stakeholders, including older adults, volunteer technology buddies, facilitators, and service providers, and reviewed literature relevant to the program.

TFH intends to enable the set-up, training, and support of older adults in the use of information and communication technology (ICT) as a foundation facility to support them to live as independently as possible in their homes by staying connected, reducing risks, and promoting well-being. The program aims to assist older adults in accessing MyAgedCare and other online services and information, gaining companionship and individual social support, making and maintaining friendships, and face-to-face contact. In the program, ICT needs are customised for each older adult based on their individual needs and aspirations. Ongoing support after the program is provided through connecting the beneficiaries with young people as a technology buddy. These intergenerational links are seen as a way of building program sustainability after its completion.

Intergenerational learning with ICT contributes to the digital literacy of adults and seniors, and it fosters lifelong learning, active ageing, and solidarity and understanding among generations (Patrício & Osório, 2016)

The evaluation criteria

- **Sustainability:** Is TFH sustainable in that it (1) creates opportunities for new technology buddies to join the program and (2) supports the continuity of involvement from both the technology buddies and older adults?
- **Social participation:** Does TFH effectively promote social participation for older adults?
- **Well-being outcomes:** Does TFH effectively promote well-being for older adults, and what is the impact of technological intervention within TFH on older adults and service providers?
- **Provision:** Does TFH show value for money given the logistical and training considerations for the service providers?



The TFH model should be commended on the following praiseworthy aspects of the program.

- Had 'program champions' in MidCoast Assist working in the field as essential strategists, advocates, and communicators to support TFH.
- Adapted to the impacts of COVID-19. Changing how the program is delivered, offering over-the-phone and online help and keeping all participants up to date.
- Promoted social participation and sense of well-being for older adults by linking them with technology buddies.
- Encouraged some older adults to come forward as technology buddies, therefore, improving their confidence and sense of well-being. It was observed that these older technology buddies were able to engage well with the older participants.
- Included persons aged 85 and over as this demographic is typically excluded in the current policy and literature.
- Gave older adults the opportunity to determine their technology needs as linked to well-being.



Technology for Homes

What is Technology for Homes?

MidCoast Assist's TFH program is an intergenerational ICT initiative for older adults living in the MidCoast area.

TFH aims to enable older adults to use technology to access online services and information, reach individual social support and companionship, and make friends and maintain face-to-face contact. To achieve this, TFH provides older adults with technology and a technology buddy to provide ongoing support and training in its use.

TFH Delivery Model

Three key events were delivered in the TFH program, two one-off events at the start of the program and one continuing throughout.

- **Training workshops** – To begin the program, volunteer technology buddies participated in one of two training workshops. An external professional training provider facilitated the training. Activities included teambuilding exercises, a program overview presentation, and role-play of teaching a basic activity to another volunteer and teaching a technology skill to an older adult. Technology buddies were educated on health and safety when using computers, communicating with older adults, learning styles, and how to teach a technology skill.
- **Technology showcase** – A day-long event brought together older adults, technology buddies, facilitators, and service providers. The technology showcase was primarily held to introduce older adults to their technology buddy and present the available technologies that older adults could

choose from to later be trained to use. In small groups, older adults and their technology buddies were shown the available technologies by external facilitators in short sessions throughout the day. The groups rotated around the room to visit each session to learn what is available to meet their technology needs. Throughout the day, other events included presentations from the mayor on ageing, social connectedness, and technology, and an external facilitator on cybersecurity and technologies.

- **Meetups** – Once the older adults had their chosen device set-up in their home by service providers, ongoing meetups between the older adults and technology buddies were held. When it suited both parties' schedules, older adults and technology buddies met in-person, over the phone, or through an Internet service. Technology buddies were to train older adults in their chosen technology, provide ongoing support, and provide social connection.

MidCoast Assist staff supported communication between older adults and technology buddies wherever possible, encouraging ongoing connection and support.





The CSU Evaluation

Background and design process

Before commencing this evaluation, a literature review was conducted. The literature review informed the evaluation criteria and approach.

With ageing, the risk of loneliness, loss of social connection, and detachment from society increases. ICT use can play a role in reducing those risks by enabling social connection. However, adopting, learning, receiving support concerning new ICT in old age has its difficulties. The literature in this space highlights the importance of intergenerational links, enabled through exchange programs such as The School Volunteer Program, to encourage, train, and support older adults in ICT use. Intergenerational ICT programs help older adults demystify technology, appreciate learning, support active ageing, regain autonomy, feel pride, and acquire basic ICT skills (Patrício & Osório, 2011) with the assistance of a younger person.

For the older generations, a commonly reported barrier to the adoption and use of ICT is fear, i.e., geriatric technophobia. Although barriers exist for older adults to use ICT, this group is still willing and wanting to learn (Selwyn, Gorard, Furlong, & Madden, 2003; Wang, Rau, & Salvendy, 2011). Overcoming the initial fear which older adults express towards ICT (Lindsay, Smith, & Bellaby, 2008) can be facilitated by an intergenerational approach (Hardill, 2014).

The adoption of ICT by older adults relies on accounting for each person's attitude, the experience of use, and perceived benefits, not just usability (Hernández-Encuentra, Pousada, & Gómez-Zúñiga, 2009). Working together with individual older users to search for appropriate ICT solutions to meet and support their needs is essential when introducing ICT into their homes (Eisma et al., 2004; Magnusson, Hanson, & Borg, 2004; Magnusson & Hanson, 2003).

Overcoming the initial fear which older adults express towards ICT can be facilitated by an intergenerational approach (Hardill, 2014)

What are the benefits of an intergenerational, in-home ICT program for older adults?

In-home ICT initiatives for older adults increase social participation (Magnusson & Hanson, 2005), including those with an intergenerational approach (Thygesen, Leifson, & Martinez, 2014).

The use of ICT in the home of older adults can also:

- Positively impact independence, autonomy, and self-esteem (Magnusson & Hanson, 2005), and access to health information (Tse, Choi, & Leung, 2008).
- Lower rates of loneliness, chronic illnesses, and depression, and improve health (Chopik, 2016).

An intergenerational approach adds the following benefits:

- Help encourage older adults to get started using ICT and thereafter provide ongoing support (Hardill, 2014).
- Serve a fundamental role in successfully teaching older adults basic ICT skills (Thygesen et al., 2014).



Methods

A mixed-method, interpretivist, social constructivist approach was used, employing quantitative pre- and post-program surveys and qualitative interviews and observation.

As seen in the appendices, ethics approval was obtained through the National Health and Medical Research Council Human Research Ethics Application process. It required that for the three sources of data collected, participants needed to agree to participate. Hence, consent was sought out from interview participants in the following ways. Survey participants were advised that by filling out surveys they were consenting to data collection. Observed participants at the technology showcase were similarly notified that the research team would collect non-identifiable observations and that being at the event implied consent. For observed participants in their home, consent was reasonably implied since they had given consent to participate in a survey and/or interview on that occasion. Thus, in addition to gathered literature, brochures, and other support materials, there were the following two forms of data gathering:

1. **Pre- and post-program surveys** with older adults.
2. **Observations** of TFH events and participants undertaking interviews and surveys.
3. **Interviews** with older adults, technology buddies, facilitators, and service providers.



Data collection and analysis

Pre- and post-program surveys

Surveys were conducted with older adults before and after the TFH program. Short surveys are quick and easy for participants. Surveys were used to gather quantitative and qualitative data. The surveys were co-designed by MidCoast Assist and the research team.

The pre-program survey was conducted by the MidCoast Assist staff at the commencement of TFH and included 59 participants. The baseline survey data that MidCoast Assist collected was made available to the research team once this evaluation project was approved. Participants were made aware that their data will be passed onto the research team at the time of data collection. Their data was passed on with their consent.

The post-program survey was conducted with 21 older adults by the research team at the closing of TFH. Surveys were mailed to TFH participants and were returned by mail to the research team. For those who required assistance, the post-program survey was conducted in person by MidCoast Assist.

In addition to questions about specific aspects of the program, the post-program survey included the 'Your Experience of Service' questionnaire, consisting of 32 scaled and two open-ended questions.

Observations

Observational research took place at two TFH events and several homes of interview and survey participants. The research team attended the first of two technology buddy training workshops and the technology showcase, taking notes and other evidence (e.g., brochures and photographs) during this time. The observations reported here are only those relating to service provision and persons from which consent was reasonably implied, as explained in the section above.

Observations were recorded as field notes. The field notes were coded and analysed using NVivo software to derive key observations.



Interviews

Eight interviews were conducted, consisting of nine participants. The interviews consisted of two service providers, two technology buddies, and five older adults.

Most participants interviewed face-to-face, with one being conducted over the phone. Three of the face-to-face interviews were conducted with two members of the CSU team present. Just one CSU research team member completed the remaining interviews.

One older adult who was hard of hearing was interviewed with the assistance of the service providers. In this instance, assent to allow the service provider to assist was sought out and given.

Interviews were audio-recorded, transcribed, and then analysed using NVivo software. Analysis of qualitative data was carried out using thematic narrative analysis. This technique is used to examine participants' stories and experiences as they are situated within the activity context, i.e., within TFH, and pull out common themes (Allen, 2017). Identifying these themes helped to inform the assessment of TFH considering the evaluation criteria.





Findings: Tech Buddy Training Workshop Observations



Workshop activities

The activities throughout the day were as follows.

1. Building a puzzle together
2. Program overview presentation
3. Presentation from external trainers on topics:
 - a. Keeping it safe and healthy
 - b. Health and safety when using computers
 - c. Empowering and engaging with older adults
 - d. Cultural safety
 - e. Learning and teaching styles
 - f. How to teach a tech skill activity
4. Role-play activities:
 - a. Teach a basic activity to another technology buddy
 - b. Teaching a tech skill to an older adult
5. Feedback and evaluation

Key observations

Event technology support

Before the workshop commenced, the presentation technology was already set up to make the most of the volunteers' time. The workshop was filmed, and the cameraperson proved helpful as on-site technical support on several occasions. For example, they helped to set up collar microphones for presenters. Using microphones ensured that technology buddies could hear the presenters, particularly when rain created sound issues.

Professional training

Two external, professional trainers delivered the workshop. The trainers were welcoming, down-to-earth, and informative. The trainers often checked in with the technology buddies to ensure that the information presented was understood throughout the day. Questions were invited frequently and addressed as they arose. Feedback was requested at the end of the day to improve training in the future.



Take-home learning materials

In addition to visual presentations, the trainers provided the technology buddies with a wealth of resources via handouts. The learning materials covered the safe use of computers, learning and teaching styles, safety, and so on. Emphasis was given on the topics of empowering older adults and engaging with older adults. Focusing on empowering and engaging in social participation with older adults was a key theme throughout the workshop.

Room arrangement

The technology buddies were seated around tables arranged in a U shape. As opposed to rows, this arrangement created a sense of togetherness, allowing the technology buddies to see each other and converse. This arrangement allowed presenters to enter the centre space and engage with technology buddies on a more personal level.

Role-play with older adults

A role-play activity, *teaching a tech skill to an older adult*, was organised with two older adults with little experience with technology. This activity allowed technology buddies to practise the skills learned in the workshop, better preparing them for the TFH program. Several technology buddies found the activity difficult and were advised by the trainers and other technology buddies as to what they were doing wrong and how to improve. Those who struggled repeated the activity several times to improve.

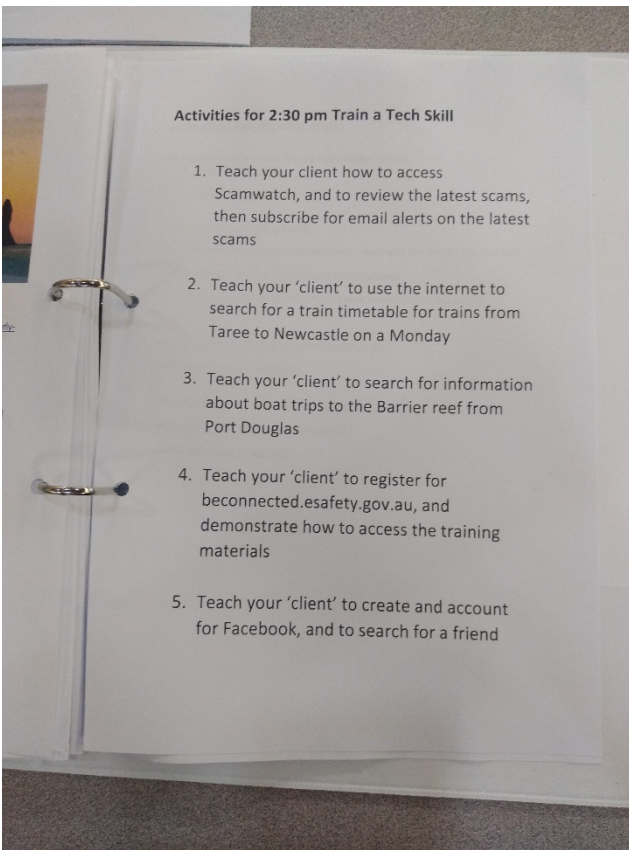


Physical prop use

During the role-play activity, *teaching a tech skill to an older adult*, physical props were used to teach technology buddies about some of the difficulties that older adults face. Props included pairs of glasses simulating the effects of different types of sight degradation (e.g., tunnel and reduced central vision) and noise-cancelling headphones to simulate hearing loss. This activity demonstrated to the technology buddies the effects of ageing they might encounter and how to account for them. Moreover, experience of these kinds of difficulties might inspire empathy.

Administrative procedure interference

The cameraperson interrupted the workshop flow on several occasions. First, to have a presenter repeat their 10-minute workshop introduction more concisely. Second, to pause a presentation that they wanted to film until they had their camera mounted and ready. Lastly, close-up shots of the attendees visibly distracted some of the technology buddies.



Technical issues

Towards the workshop's start, several technology buddies commented that the soft presentation screen was "distracting" as it wavered and curled up at the bottom, making some of the on-screen content unreadable.

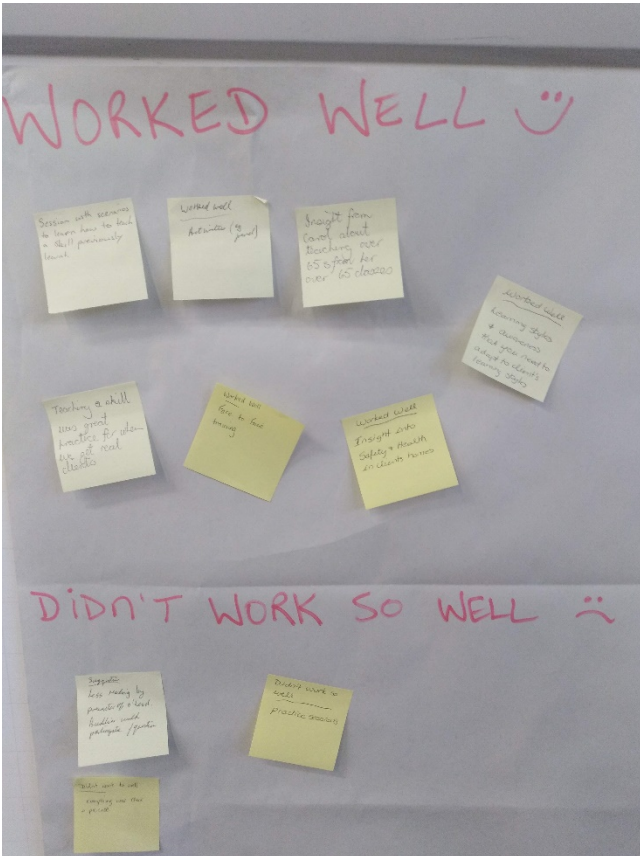
Diversity+

In the learning materials, technology buddies were provided with important information about cultural safety, older adults from Aboriginal and Torres Strait Islander backgrounds, and Culturally and Linguistically Diverse backgrounds. Furthermore, a brief statement suggested that technology buddies need to know that some older adults might be of diverse sexualities. However, diverse gender identities and the older LGBTIQ+ community were not mentioned.

Timing

A few topics in the presentation were skipped due to running out of time. However, this workshop was explicitly organised ahead of the second workshop to learn about any possible time and schedule issues and manage them going forward. However, even with these self-assessing intentions in mind, there were two lengthy occasions (after lunch and the role-play activities) when the conversation drifted off-topic and time was lost.

Recommendations



Sustainability

Perhaps to improve the uptake of new technology buddies volunteering in the future, the existing technology buddies could help by suggesting that their friends join and communicate their experiences.

Social participation

To better account for diversity in the older community, the cultural safety topic should include stronger links to the LGBTIQ+ persons. The older LGBTIQ+ community has diverse social values, needs, and disparities that technology buddies might need to be aware of to improve social participation, program sustainability, and well-being outcomes.

Well-being outcomes

While technology buddies were advised to keep a look out for possible safety issues or well-being concerns in the homes of older participants, more could be done here. The manner in which this is carried out will need to be considered.

Provision

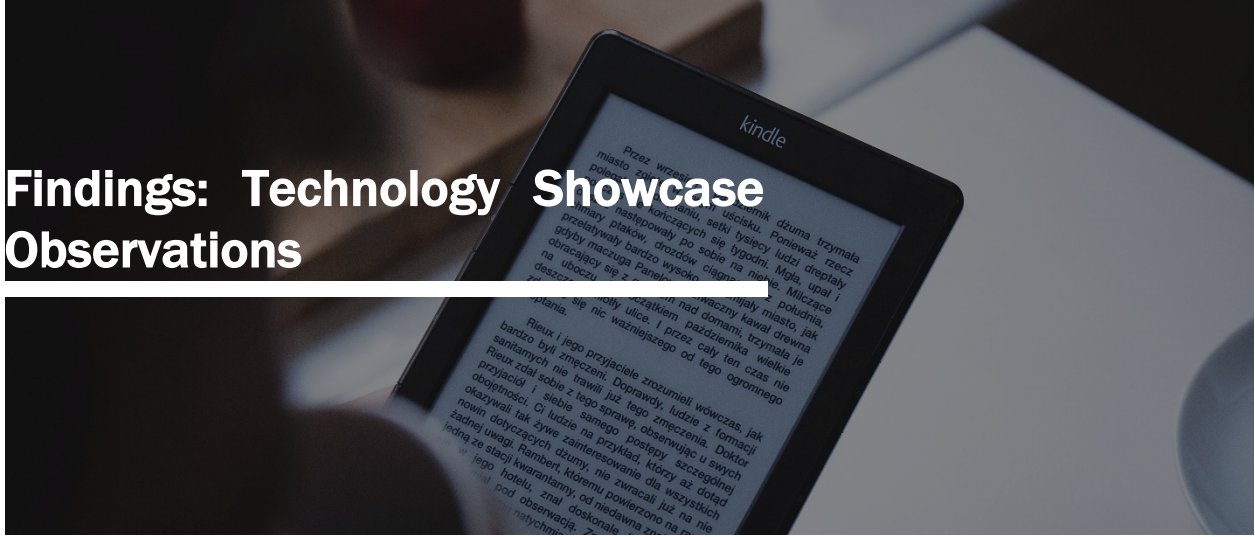
Administrative requirements (e.g., filming the workshop) and the logistical considerations involved are important, but they should not interfere with the event. Setting boundaries before the event starts with persons present for logistical reasons, such as the cameraperson, might improve service provision.

Bringing in external, professional trainers to produce well-informed and practised technology buddies might be key to the success of TFH. To ensure program sustainability, social participation, and well-being outcomes, future iterations of TFH should continue to use external training providers.

On improving timing, of course, it is important for volunteers in a program like TFH to feel comfortable and enjoy their participation. However, some nudging from the administrative level might be needed to move the workshop forward and keep it on time.



Findings: Technology Showcase Observations



Showcase activities

The activities throughout the day were as follows.

1. Presentation from the mayor about technology, ageing, loneliness, social connectedness, and global connection
2. Presentation on cybersecurity and healthcare technology
3. Morning tea
4. 1st round of technology sessions
5. Lunch
6. 2nd round of technology sessions
7. Feedback and evaluation, as well as setting learning goals for older adults.

“Loneliness is lethal, but you’ve got a computer and instantly you are in touch with people across the world”



Key observations

Wider community engagement

Holding a showcase allows older adults to engage with a wide range of others from their community. Several other aspects of the program delivery model encouraged this wider community engagement, including encouraging an intergenerational approach with younger technology buddies and inviting product representatives from local and interstate businesses to present the technology sessions to older adults.

Friendly session presenters

The product representatives presenting the technology sessions were mostly friendly and welcoming to the older adults and technology buddies. There was a mix of floor salesmen and business owners taking on this role. The benefit of having product representatives familiar with the technologies on offer taking part to present those technologies is that they are well-informed and inherently friendly, as is characteristic of salespersons.

Benefiting local businesses

Following the last observation, inviting product representatives to present the technology sessions has some in-built benefits. First, creating a sense of community engagement for older adults in TFH. Second, putting money back into the local community, as the older adults' technologies were then purchased through the product representative.

Interest in technology

Many of the older adults were noticeably interested in learning about and using technology to stay connected as they attended the event. More importantly, at the event, many were visibly interested in the technologies at the showcase. They asked informed questions about the technology and talked to each other and technology buddies about how they could use them in their homes.



Technology connects us in different ways

The showcase was lively and inspired conversation among older adults, particularly towards the start of the day. Persons in this group connected with each other and the technology buddies, facilitators, and technology. Technology connects people directly and indirectly, and this was observed in TFH. Socially connective technology can help create connections by using technology as a medium, e.g., making video calls or emailing. Outside of direct social connections made through technology, participating in a technology program like TFH also brings people together face-to-face.



Variety of technology

The TFH showcase featured a wide range of technology. The main categories included personal computers, assistive technology, and smart home technology. Noting that technology connects us directly and indirectly, each category helps in one way or the other. Personal computers create direct social connection, whereas assistive technology and smart home technology could create either. For instance, a smart television could facilitate a video call between an older adult and someone else. It could also be used to display old photos so that an older user could start conversations with guests using the photos. Alternatively, two older adults might spark up a conversation about their smart televisions. In this way, technologies that might not seem to have inherent social value, such as a smart light bulb, holds some indirect social value.

Technology buddy help

Throughout the day, most of the technology buddies were supportive and considerate to the older adults. There were not enough technology buddies to pair one to each older adult, and so the technology buddies were assisting two or more at a time.

Lack of one-on-one

In general, those older adults who did not have a technology buddy who could effectively cope with more than one person simultaneously appeared to suffer. They were quieter, as well as looking down and wandering more. Older technology buddies were particularly patient and engaged compared to the younger technology buddies. On several occasions during the technology sessions, more than a few younger technology buddies stood at the back of the room and chatted.

Noise and space issues

The event was loud, especially towards the start. For most of the day, 10+ technology sessions were held concurrently. The room was small for the number of people in attendance, and the tables and chairs for technology session spaces were close together. This created noise and walking space problems for many of the older adults.

Wandering and safety

Throughout the day, the wandering of older adults was prevalent. As the tables and chairs were close together, people had to navigate small walking spaces, which were often occupied by standing people to move around. There was no person assigned to supervise this behaviour and watch out for safety issues.

Length of event

After lunch, there was a perceptible drop in the engagement of the older adults. The conversation level was lower than in the morning, and there was more wandering as the showcase moved into the afternoon. At that time, more interpersonal conversations were happening, rather than focusing on the technology. Among other possibilities, it could be that the day was too long, that these persons had already decided on what technology they wanted, or both.



Recommendations

Sustainability

Older technology buddies appear to be more patient and effective communicators. Creating opportunities for new, mature aged technology buddies to join TFH is important to sustainability. There are well-known charitable organisations that naturally attract older volunteers, such as the St Vincent de Paul Society, Rotary Club, Lions Club, or Mission Australia, which could help increase volunteer up-take in TFH going forward. Establishing relationships with other community-driven organisations also integrates TFH into the community, further demystifying technology and these kinds of programs.

Social participation

Based on the showcase event observations, TFH effectively promotes social participation for many older adults, technology buddies, and service provider staff. However, the closer the program could get to a 1:1 older adult-technology buddy delivery model, the more socially engaged and supported older adults could be in their participation in TFH.



Well-being outcomes

Although it was not observed, there might be a risk of product representatives overselling the technologies to older adults. Moreover, they might not be equipped to handle older adults' diverse mental and physical needs that could arise during such an event. However, no such concerns emerged at the showcase, and MidCoast Assist facilitators were on-hand if this eventuated. Perhaps, to alleviate any concerns about deception and health, a social

worker, nurse, or MidCoast Assist facilitator with care training could be assigned to supervise the event and specifically assist in this capacity. An added benefit of this approach is that someone trained in care for older adults could help advise product representatives and facilitators better assess older adults' needs and goals and pair them with the appropriate technologies.

Provision

As the day went on, people began to engage less and wander more (i.e., walk around more). Shortening the event would be beneficial. There is data reported here showing that some technologies were more popular than others. Using this knowledge, the number of technologies that older adults in TFH can choose from could be reduced. Thus, shortening the time needed to present the technology sessions and possibly lowering the prevalence of disengagement and wandering observed in older adults.



Findings: Pre-Program Survey

Older adult characteristics

A total of 59 older adults participated in TFH. The pre-program survey was designed to capture basic demographics and living arrangements, dimensions of physical and mental well-being, social connection, and experience with technology. The following tables and figures depict the participant characteristics.

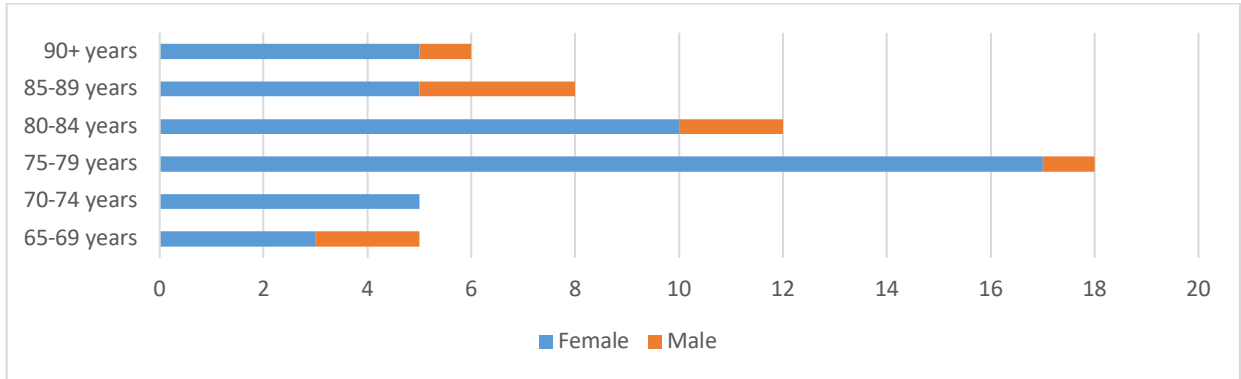
Table 1. Age

Age category	Number of participants	Percent
65-69 years	7	11.9
70-74 years	6	10.2
75-79 years	18	30.5
80-84 years	14	23.7
85-89 years	8	13.6
90+ years	6	10.2

Table 2. Gender

Gender category	Number of participants	Percent
Female	49	83.1
Male	10	16.9
Other	0	0

Figure 1. Participants by age and gender



All 59 participants identified as living in a regional area, and only one participant identified that English is not the main language they speak.



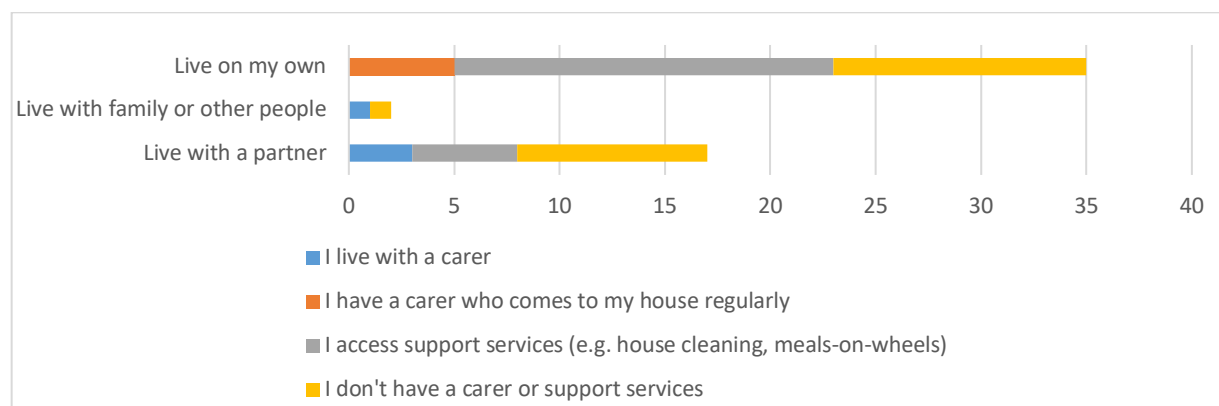
Table 3. Usual living arrangements

Living arrangements	Number of participants	Percent
Live with a partner	16	27.1
Live with family or other people	2	3.4
Live on my own	40	67.8
Other	1	1.7

Table 4. Current support: In-home support services and carers

Highest level of support reported by participants	Number of participants	Percent
I live with a carer	4	6.8
I have a carer who comes to my house regularly	5 ¹	8.5
I access support services (e.g., house cleaning, meals-on-wheels)	30	50.8
I don't have a carer or support services	24	40.7

Figure 2. Current living arrangements and in-home support of participants



¹ Participants could pick more than one option for current support. Of the five people in the table above who have a carer who comes to the house, four of them also access support services.

Physical health

Table 5. Physical conditions

	Not applicable	Low	Medium	Severe
Visual impairment	14	24	15	6
Hearing impairment	25	10	15	9
Mobility issues	18	15	18	5

Table 6. If you experience impairments, are you interested in technology designed to assist in this area?

Response	Number of participants	Percent
Not answered	2	3.4
Yes	35	59.3
No	18	30.5
I don't know	4	6.8

Psycho-social well-being

The participants' psycho-social well-being was benchmarked using two specific scales - the K10 (Anderson et al., 2013) was used as a standard measure of psychological distress and a scale adapted from the Community and Social Engagement Scale used by the Australian Institute of Health and Welfare (AIHW, 2018). The K10 was useful for establishing the likelihood that research participants are experiencing psychological distress.

Table 7. Indication of psychological distress according to K10 score

Response	Number of participants	Percent
Likely to be well	42	71.2
Likely to have a mild mental disorder	9	15.3
Likely to have a moderate mental disorder	6	10.2
Likely to have a severe mental disorder	2	3.4

Table 8. During the past four weeks, how often would you say you felt lonely or isolated?

Response	Number of participants	Percent
Not answered	2	3.4
Not at all	22	37.3
Occasionally	26	44.1
About half the time	4	6.8
Most of the time	3	5.1
Almost always	2	3.4

Technology use

Table 9. Which of the following technology devices do you use?

Response	Number of participants
Desktop computer	9
Laptop or Netbook	19
Smartphone (iPhone, Android, Blackberry, etc.)	24
Regular cell phone	0
E-reader (kindle, nook, etc.)	1
iPad or other tablet	15
Wearable device (Fitbit, Garmin, Apple Watch, etc.)	0
Home assistant (Alexa, Google Home, etc.)	1
Smart TV	5
Smart home technology/security (e.g., Nest, Ring, SimpliSafe)	1
None of these devices	18

Table 10. Participant has an Internet connection at home:

Response	Number of participants	Percent
Yes	35	59.3
No	24	40.7

Social connection and technology

Table 11. Do any of the following describe your experience with using technology devices to stay socially connected?

Response	Number of participants
I'm not comfortable using technology devices to stay socially connected	22
Computer devices seem too impersonal	13
I prefer to call instead	39
Using computer devices is too time-consuming	9
I don't know how to use it	38
I don't have access/Wi-Fi/Internet speed needed	19
I don't trust it will be private	28
I have no one to use it with	11

From Table 11, almost 65% of participants cited not knowing how to use technology as one of their reasons for not using technology to stay socially connected. Despite this, the table below shows that staying connected with family and friends was easily the highest volume of technology use amongst program participants. This suggests that when seniors feel confident using technologies, it is a means for regular social contact. Additionally, feeling confident and competent may be related to other concerns, such as feeling comfortable using technologies and understanding privacy.

Table 12. In the last six months, about how often do you use technology like cell phones, computers, and the Internet to:

	Never	Less than once a month	Once a month	A couple of times a month	Once a week	A couple of times a week	Everyday
Stay connected to family and friends	12				3	14	30
Access online health services and information	46	4	3	4	1	1	
Search for information not related to health	30	2	5	2	2	8	10
Play a game	36		1			7	15
Shop online	45	4	6	1		2	1
Access social networking sites	37	2	1	1	1	6	11
Bank online	50		2	1	1	4	1
Access entertainment	46	2	1	3	1	5	1
Monitor health	55	1	1	1	1		
Engage in learning	48		2	2	2	4	1

Relatedly, Table 13 below displays the responses to the adapted Community and Social Engagement Scale. While the participants were all connecting socially to some extent, the responses suggest few participants were highly engaged in a range of activities at the beginning of the TFH program. Talking to friends and family via technology was used by all participants. However, in light of the results in Table 11, this contact was likely limited to a landline or traditional voice calls using mobiles for a significant number of program participants.

Social participation

Table 13. In the last six months, about how often did you participate in the following activities:

	Never	Less than once a month	Once a month	Once a fortnight	Once a week or more
Provide informal (unpaid) care for friends or family	41			1	17
Volunteer for an organisation	41	1	4	1	11
Engage in physical activity away from home for exercise or recreation	28	1	1	8	20
Attend a class or group to learn or for recreation (e.g. music or book club, art class, University of the Third Age)	31	1	4	11	12
Attend an arts event (e.g. go to a movie, concert, play, or other performing arts event)	16	31	9	2	1
Visit a public library, museum or gallery	26	9	5	10	9
Attend a religious or spiritual service	35	5	2	5	11
Spend recreational time with friends or family away from home (e.g. going to a café, restaurant, park or another outing)	2	9	7	15	26
Visit friends and family	11	10	7	3	28
Host social gatherings in your own home	29	17	5	4	4
Talked to family (e.g. via phone, skype or similar)			2	4	53
Talked to friends (e.g. via phone, skype or similar)		1	5	4	49

Findings: Post-Program Survey

Older adult characteristics

Of the 59 total participants who participated in TFH, 21 responded to the post-program survey. To follow is the key data collected in the post-program survey, with meaningful comparisons between this and the pre-program data highlighted throughout.

Table 14. Age

Age category	Number of participants	Percent
65-69 years	1	4.8
70-74 years	3	14.3
75-79 years	7	33.3
80-84 years	4	19
85-89 years	2	9.5
90+ years	3	14.3
Unknown ²	1	4.8

² This participant did not contribute to the pre-project survey data, they therefore appear as ‘Unknown’ where data from the pre-project survey is relevant. Where comparisons of pre- and post-project data are made, we only have 20 participants whose data is included.

Table 15. Gender

Gender category	Number of participants	Percent
Female	19	90.5
Male	1	4.8
Unknown	1	4.8
Other	0	0

One participant changed their living arrangements, going from living on their own pre-program to living with family or other people

Table 16. Usual living arrangements

Living arrangements	Pre-program	Post-program
Live with a partner	4	4
Live with family or other people	0	1
Live on my own	16	15

Two participants picked more than one option regarding their current support. One indicated they live with a carer, and the other indicated that they have a carer who regularly comes to their house. Both indicated they access support services.

Interestingly, one participant added a note that they privately pay for a house cleaner. It is possible that this not part of government-supported age or disability care services. Other participants might also do this or access other services privately, such as gardening or pre-made meals.

Table 17. Current support: In-home support services and carers

Highest level of support reported by participants	Number of participants	Percent
I live with a carer	1	4.8
I have a carer who comes to my house regularly	0	0
I access support services (e.g. house cleaning, meals-on-wheels)	12	57.1
I don't have a carer or support services	6	28.6
Multiple options picked	2	9.5



Social participation

Several respondents noted on their survey that the COVID-19 pandemic had changed much of their social participation. Therefore, comparing pre- and post-program results about social participation, which takes place face-to-face or exclusively outside of the home, would be ineffective in addressing the evaluation criteria. However, social participation through technologies is highly relevant. A substantial number of participants reported having talked to friends and family via phone or video platforms throughout mid-2020 (highlighted in green). As a part of TFH, many participants received tablets and phones. This choice of technology device is likely to have contributed to the high numbers of persons maintaining social connectedness during an otherwise highly isolating period.

Table 18. In the last six months, about how often did you participate in the following activities:

	Never	Less than once a month	Once a month	Once a fortnight	Once a week or more
Provide informal (unpaid) care for friends or family	13	2			4
Volunteer for an organisation	13	1	2	1	2
Engage in physical activity away from home for exercise or recreation	8	4	1	2	6
Attend a class or group to learn or for recreation (e.g. music or book club, art class)	13	2	1	2	2
Attend an arts event (e.g. go to a movie, concert, play, or other performing arts event)	14	2	4		
Visit a public library, museum or gallery	11	5	2		5
Attend a religious or spiritual service	16	1		1	2
Spend recreational time with friends or family away from home (e.g. at a café, park or another outing)		5	3	5	7
Visit friends and family	1	4	2	4	9
Host social gatherings in your own home	8	5	2	2	3
Talked to family (e.g. via phone, skype or similar)	1			1	19
Talked to friends (e.g. via phone, skype or similar)	1		2	1	16

Physical health

Five participants indicated they used some form of technology designed to assist with one of the following impairments. Thirteen indicated they did not. A further participant with 'severe' hearing impairment also indicated they did not use assistive technology as part of the program but reported having been provided with a 'shake awake' alarm clock as part of the program, which "works extremely well".

There was mixed interest in trying different assistive technologies now they had experienced the program.

Table 19. Physical conditions

	Not applicable	Low	Medium	Severe
Visual impairment	10	4	4	1
Hearing impairment	8	3	5	3
Mobility issues	5	3	11	2



Psycho-social well-being

The table below shows each participant according to their pre- and post-program K10 scores. Sixteen participants stayed in the same category (highlighted in yellow); two participants had a better likelihood of mental health post-program than pre-program (highlighted in green); only one participant had a worse likelihood of psychological distress (highlighted in red).

The one person who had indicators of severe psychological distress, when contacted, was travelling reasonably well but had experienced “a tough few weeks”. Similarly, people with better scores could have answered the survey on a ‘good’ day or week.

Regardless, it is notable that the 2020 COVID-19 pandemic has affected the wider community in terms of mental and other forms of well-being and social connectedness. This is believed to be particularly true for older adults, who were considered particularly vulnerable and therefore more likely to limit in-person contact than other age groups. That the participants who contributed post-program information were almost all doing the same or better in terms of mental health is remarkable. While a cause-and-effect relationship cannot be established, it is reasonable to conclude that the TFH program was likely a contributing factor.

Table 20. Indication of psychological distress according to K10 score: Pre-program vs. post-program

		Post-program Indication of psychological distress according to K10 score			
		Likely to be well	Likely to have a mild mental disorder	Likely to have a moderate mental disorder	Likely to have a severe mental disorder
Pre-program Indication of psychological distress according to K10 score	Likely to be well	12			
	Likely to have a mild mental disorder	1	3		
	Likely to have moderate psychological distress	1		1	1

Table 21. During the past four weeks, how often would you say you felt lonely or isolated?

Response	Number of participants
Not at all	9
Occasionally	6
About half the time	2
Most of the time	4
Almost always	0

Comparing pre- and post-program scores on loneliness and isolation shows that some people experienced more loneliness or isolation (highlighted in red). However, almost as many had better experiences (highlighted in green). Most participants' experience was unchanged (cells shaded yellow). Given the COVID-19 situation, this data could be interpreted in a few different ways. On the use of technology for social connection, it is possible technologies provided by TFH were effective in enabling participants to maintain social connections while face-to-face interactions were limited. This could explain why many participants' experience was unchanged.

Table 22. Experience of loneliness or isolation: Pre-program vs. post-program

		Post-program experience of loneliness or isolation			
		Not at all	Occasionally	About half the time	Most of the time
Pre-program experience of loneliness or isolation	Not at all	7	1		
	Occasionally	2	2	1	2
	About half the time		1		2
	Most of the time			1	
	Almost always		1		

Technology use

Fifteen participants indicated they have an Internet connection at home, while six participants do not. Of those fifteen with Internet access at home, six of them got it so they could use devices in this program. Of the remaining participants, one noted they were still waiting for the Internet to be connected in their home, which they initially pursued because of their involvement in this program.

Program evaluation by older participants

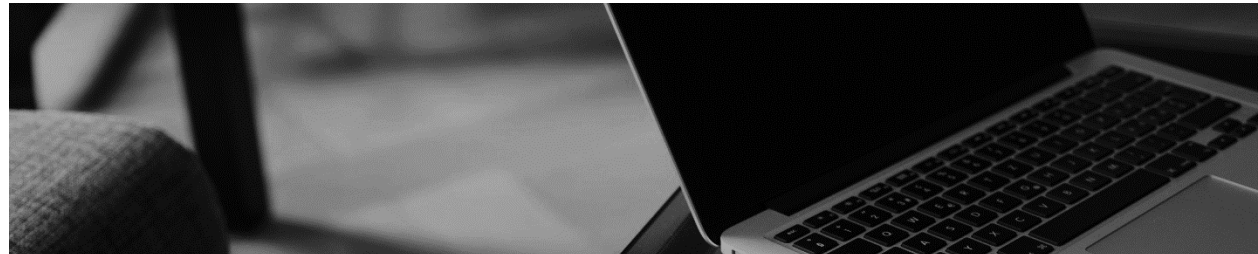
Overall satisfaction with the TFH program was high. Twelve people indicated they were “very satisfied”, and a further seven were “satisfied”. Only one person was “very dissatisfied”.

It is worth noting that the participant who was “very dissatisfied” with TFH also indicated they were “likely” to participate if a similar program was run with more advanced technologies. Looking more closely at why they might have been dissatisfied, they found the initial meetings and set-up of the devices “moderately valuable” and everything else “not at all valuable”. They have “severe” hearing impairment and mobility issues, and pain interfered with normal activities “extremely” in the month prior to responding to the post-program survey. They feel lonely or isolated “most of the time”. They did not score highly overall on the K10, but some of their higher scoring items indicate that ‘everything is an effort’. This participant’s technology use and familiarity were minimal. They indicated they never use technology to do any of the activities explored in the survey. They also ranked experiences with technology poorly, including “I have no one to use it with”. It may be that the TFH program is not sufficient to address the individual needs of participants such as this one. A broader program helping them connect with other people may be needed for a program like TFH to be of value to them.

Table 23. Value of the TFH program

	Not at all valuable	Slightly valuable	Somewhat valuable	Moderately valuable	Extremely valuable
Initial meetings with MidCoast Assist staff				5	15
Technology showcase	1	1		6	11
Delivery of the device/s	1			3	15
Set up of the device/s			2	5	11
Working with your Technology buddy	1		4	4	9

Findings: Interviews & Open-Ended Survey Questions



Emerging themes

To follow is a list of themes and categories identified through the analysis process.

Themes	Categories	
Goals	Learning goals	Program goals
Learning	Keen to learn Actualising new skills	Teaching others
Service provision	Community connections Cost	MidCoast Assist staff Training workshop and showcase
Social connection	Connecting with family Isolation	Social participation
Sustainability	Ongoing relationships Recruitment	Use it or lose it
Technology	Ageism Technology buddies	Technology literacy Technology needs and solutions
Volunteering	Fulfilment	Personable volunteers
COVID-19	—	

Goals

Learning goals

The learning goals participants set at the start of TFH were both practical and socially valuable. Examples include using teleconferencing devices to connect family, the pharmacy, and meals on wheels; writing on an iPad to better connect with an online writer's club; playing games; banking online; and using Facebook. Some of which were achieved.

We've got family on the screen. I've got pharmacy on the screen, tick. Meals on wheels, tick (Participant2)

One technology buddy found that an older participant's learning goals did not match the chosen technology.

All he really wanted to do was answer the phone and make phone calls with his \$1000.00 phone (Laughing). And he had, he'd already had a phone, just a simple phone but he got this fancy phone, and he didn't want to use any of the fancy (Techbuddy1)

Another technology buddy had the opposite experience. The older adult they were teaching had numerous learning goals, including learning how to play games, write, send emails, bank online, use Facebook on her computer, make phone calls on a mobile phone, and use Google Home to manage appointments.

While some participants did achieve some of their learning goals, they often spoke about achieving learning goals in the future. Thus, having a sustainable, ongoing program is important for achieving learning goals.

I'm hoping that it'll help me do what I set out to do, to write on the computer. Everybody else in the group writes on their computer, I write – still write by hand (Participant1)

It's going to be very beneficial to me (Participant4)

Program goals

Service providers hoped that TFH would enable older adults to be more independent and reduce the workload on services.

My Aged Care for example (...) if they can't access that they have to rely on someone like us to do it for them, when in theory they shouldn't need to do that (...) it adds a whole other level of busyness to what we're doing (Service Provider 1)

Along with teaching older adults how to use technology to be less dependent on services, another goal of TFH was to add social value to older adults' lives. Service providers felt as though this goal was in part achieved.



at least offering them an opportunity to have that social connection with somebody, another human being you know so I think that's definitely added value to their lives or may have improved things for them (Service Provider 2)

Some participants also spoke of the added social value of the technology they received in TFH.

With the technology it's just wonderful that you can talk to people. I've got friends in America too; a mother and her daughter that I talk to regularly (Participant4)



Learning

Keen to learn

Undoubtedly, most older adults in TFH are very interested in learning.

I'm very interested in all the tech stuff, you need to be (Participant3)

Like the 100 year old that you knew, she just wants to learn so much all the time (Techbuddy2)

Technology buddies were also interested in learning new technologies and skills in interacting with older adults.

I do enjoy volunteering, doesn't matter in what capacity. Yeah, and if I can learn something from it I'm happy with that as well (...) I've learnt things myself (Techbuddy2)

It was positive to observe that service providers are aware of the older participants' and technology buddies' eagerness to learn. Moreover, service providers are similarly keen to learn and improve TFH.

We knew that they'd be interested in the technology of course (...) helping them learn the equipment and use it to its full potential I think is the most challenging side of it, and that's probably where we'll keep learning and keep trialling different things (Service Provider 1)

I think it's the learning thing for volunteers, like getting them to the right, getting the average volunteer to the right place to be able to do the job well (Service Provider 1)

Actualising new skills

TFH helped some older participants realise their learning goals and satisfy their eagerness to learn with their new technologies.

I wanted to print something out that my son sent me, email. So, he sent it to my iPad, and I was able to send that to the computer and print it out on my printer, so I was quite pleased with myself with that. And that's my learning from this program (Participant3)

However, of course, not everyone is quite there yet. One participant felt like they were still 'floundering' and needed 'more time to do it'.

I'm having enough trouble learning how to operate the phone (Participant 1)

Teaching others

Strategies matter, and learning and teaching strategies have to align. As a part of TFH, the technology buddies were trained to adapt their teaching strategies to the older adult's learning process, but there is more to be done in this area going forward.

It's been I guess very positive but it's also been challenging in terms of finding the right learning strategies I think for people (Service Provider 1)

I guess they gave me a bit of an understanding of how older adults engage with technology and what the events are and then as a result of that (Service Provider 2)

Teaching an older adult technology skills is achievable but requires patience.

Help them learn something, yeah I just think that's more challenging I think for a teenager to go and do something like that (...) they can actually, and they do if you give them a chance and you're patient and you reinforce and you work with them, you know it's not going to be instant like this other young woman I referred to before, it's not, they're not immediately there but they can be there you know with the right support (Service Provider 1)

Ongoing support is essential to learning, particularly for those who have trouble retaining information.

Being on my own here, there's nobody here immediately to ask if I get into trouble and I can't do something. If there was just somebody who was here, I'd say, look and come show me. What am I doing wrong? (Participant1)

[Service provider] has shown me what – I don't think I do it very well. And if you could get me some help with it (Participant2)

I can't keep things; I can't retain them. So whenever I, if I have a moment where I can't remember something I can refer back to that folder he gave me and if not, then I can contact them with this, I'm going to do that today as I said to you, contact them on the helpline that they've set up and I can ask questions there if I've got any problems (Participant4)



Service provision

Community connections

TFH service providers are closely connected with the local communities in which they operate, including Harrington, Taree, Gloucester, Stroud, Hawks Nest, Tea Gardens, Forster, and so on. They have well-established community connections, which they can lean on to recruit new participants and establish itself as a mainstay in these communities for providing social connectedness for older adults.

One of the directives was to you know we would target the clients that were already pre-existing for MidCoast Assist (Service Provider 2)

I was going out to all the cafes and museums and all that (...) A lot of engagements there, pubs and things like that and I just sort of stood in front of the people and gave them a little bit of a spiel and I made up a brochure which was very basic and gave them an idea of what was possible and yeah we filled the places very quickly (...) we had some very willing and able people from Charles Sturt University that were prepared to participate (Service Provider 2)

Some already had pre-existing relationships with people in their smaller communities so there's a lot of that and I think some of them were probably compelled by those people to come back again because you know they've got that relationship already (Service Provider 2)

There are also other programs and social groups that older participants and technology buddies participate in, which, if engaged, could improve sustainability. Many of the older adults and technology buddies in TFH are long-time members of their community who have pre-existing relationships, which could also be useful for this purpose.

I belong to the local assist group (...) a carer who looks after us, and it was her that told us about it (Participant1)

A friend put me onto to this technology buddy because she was with me at Meals on Wheels ... I also volunteer at the country club, [town] Country Club. I'm vice president there (Techbuddy2)

TFH has made potentially long-lasting connections with local technology providers from which they purchased the technology for older participants. These connections could improve sustainability and decrease costs.

They've been giving us discounts as well so that, because we're obviously a, providing them with a lot of business ... with the personal monitoring equipment, which wasn't really part of this project ... but those companies will do the set up and provide some support on the phone (Service Provider 1)

Cost

Thoughts on the cost of TFH was problematic among some of those interviewed. As mentioned above, one older participant received an expensive smartphone as a part of TFH, but he did not want to use any functions other than making calls. That older adult's technology buddy thought

that 'it was a waste' and 'a much less expensive phone and it would have done exactly what he wanted'.

However, it is encouraging to see that service providers are aware of this concern.

It would I guess build our reputation in terms of trying to do quality things and not just get money for the sake of getting money, but actually contribute to everyone's learning in this area, so (Service Provider 1)

MidCoast Assist staff

The MidCoast Assist staff are vital to the program. The staff go above and beyond to ensure that TFH participants are kept in-the-loop, given every opportunity to participate, and made comfortable. MidCoast Assist staff are personable, sociable, and genuinely interested in helping older adults.



I travel around to see them rather than vice versa, yeah. So it's been, particularly with this project, I guess really ensuring that the non Forster people have access, like the Stroud people, the Gloucester people, the Hawks Nest, who probably never had opportunities like this before (Service Provider 1)

I think it's the personal approach as [MidCoast Assist staff member] been doing, just, and going back and reinforcing and checking in and whatever, and building their confidence (...) when [MidCoast Assist staff member] there, and then he rings them a week later (Service Provider 1)

[MidCoast Assist staff member] has been over here to see me twice to give me instruction, and I think that's been wonderful (...) he's so patient and – yes, and nice and willing to help (Participant1)

[MidCoast Assist staff member] was there a couple of times with me, which was really good. And he's great, you go – like he's there if you need him as – either on phone or he'll come because he said he's here a couple of times a week anyway (...) he's very approachable (Techbuddy2)

Most older participants praised MidCoast Assist staff for being kept in-the-loop.

I've found that MidCoast Assist have been very professional and they've been keeping us up to date. I've had letters and I've had phone calls which lined up [MidCoast Assist staff member] to come and see me this week and he spoke to me about yourself coming and doing this. So they their finger on the pulse and they're, I've even had them ringing me to

check on how I am mentally and physically, how I'm coping, if I needed any help (Participant4)

There was only one instance in which an interviewee reported some poor communication from MidCoast Assist staff. The overwhelming burden of COVID-19 could explain this problem, but possible burnout should be monitored.

There was a volunteer and it happened a couple of times where they went there and you go oh well I thought they were going to have an iPad and now they have an android device (Service Provider 2)

Training workshop and showcase

Service providers had split feelings about the training workshop for technology buddies. One felt that it was not as effective as they had hoped. They believed that some of the younger technology buddies did not successfully learn how to teach older adults new skills, and the older technology buddies already knew how to do so. The training workshop was perceived as somewhat wasteful. However, it was perceived as more effective because it did educate technology buddies enough to deliver one-on-one teaching sessions compared to trying to teach older participants in a class setting without informed technology buddies.

We did have the training run by a local adult education college for the volunteers, and I'm just not sure, as we were talking about before, that it really hit the mark. I mean they did what we asked them to do, and it's not their fault (...) I knew that the older adults wouldn't, don't want to come and do a technology course, they don't want to go to a college and sit there for, you know a week, coming every day like a student and learning something, and the majority of them won't do that (Service Provider 1)

Another service provider believed that the training workshop was 'quite well received'.

We wanted to pair the volunteers [with older adults], a lot of them hadn't really been in that setting before and ... one on one with these people so we want to get the best outcomes there as well (Service Provider 2)

Technologies buddies also agreed that the training workshop was fruitful.

I attended initial workshops which were really good, they were run by some really interesting people. Sort of teaching you how to work with the elderly and how to treat them, how to solve conflicts, you know not serious conflicts but just how to deal with many (Techbuddy1)

We had to do a course. And they were all there and they were really helpful with us (Techbuddy2)

The showcase was held to 'bring the people together and getting them engaged with technology' (Service Provider 1). However, the showcase had problems, and service providers are developing a better method of showing older participants what technology they can choose as a part of TFH.

We would probably rethink the way we did that because obviously there was a common theme, there was a lot of ... one of the problems was there was a lot of noise in that space that we had. So we definitely would get a bigger space if we were to do it again. I think the concept was very well received by most people (...) even though logistically it was a

nightmare to get them all there, especially the ones that lived two hours away (...) I think the outcome was you know it brought people together, made them feel like they were part of something and they were enjoying the experience (Service Provider 1)

I mean we did the showcase as one way of, but obviously that had some limitations as well, so now we're doing the one to one, [MidCoast Assist staff members] actually go and visit them and talk to them about possibilities, but there's even room for improvement there I think (Service Provider 1)

Some problems at the showcase included safety, food, and the event length.

They had planned to get the people showcasing them [the technologies] to move and then they decided that it was too hard because they would have to set it all up and I completely understand that. It would have been too hard for them to keep moving, but these people are really old and some of them have walkers and its sort of difficult to get these people moving around tables (...) maybe they could have had smaller, less people there and it wouldn't have been such an issue because it was, everyone was sort of too close (...) there were bags on the floor because they come in and their chairs are so close, and they just put their bag on the floor and yeah exactly they could get up and trip over (Techbuddy1)

My only problem was the food, because it was smorgasbord, and I am immunosuppressed, and I am not supposed to eat smorgasbord because of the fear of infection (Participant3)



As a social event, the service providers are right that the showcase was well received, as reported by older participants.

That was good, the way they had it sorted out, I thought it was very well run. There was a big crowd. I think there was 50 of us there (Participant1)

The program was marvellous. I think it's just so good for older adults, exactly what they need (Participant3)

However, as a method to match the older participants' learning goals with the right technology, the showcase was not overly successful.

They were just selling their product. They didn't know who we were, or what we were wanting (Participant1)

Social connection

Connecting with family

Older adults are using technology to connect with family, including technology received as a part of TFH.

I really need the social side of it. So for me this set up is wonderful because it's keeping me connected to family, friends (Participant4)

The reason I'd sort of had computers and laptop and tablet that I've previously had was to communicate with them living away from the area and keeping that link with them (...) technology can be a pain at times, but it can be very good to keep in touch with family and with friends (...) there's nothing better than being able to see your grandkids on the screen and talk to them (Participant4)

They're using their technology etc and keeping in touch, and okay, seeing their relatives (Service Provider 1)

We've got family on the screen (Participant2)

Just because some older adults have family capable of helping them with technology, programs like TFH are still needed to provide that support in a targeted, one-on-one way. This is particularly important for those whose family is living far away or too busy.

I have three sons who are excellent with IT stuff, but they live so far away, so I really needed a computer buddy or a tech buddy (Participant3)

When we do go out to some of these clients, often they say the common theme is that you know their children or their grandchildren are too busy to talk to them (Service Provider 2)

Furthermore, technology allows one to keep up to date with their family even when they might not have time for a phone or video call. When a technology buddy was asked if the older adult they were paired with used Facebook to communicate with family, they suggested they could use Facebook to 'just to stick your beak at what's going on with the kids and her grandkids' (Techbuddy2).

Isolation

Unquestionably, older adults are experiencing isolation.

I just found that I haven't been out since last week to actually, when I went shopping was the last time I went out. But socially I had an outing for lunch on Saturday, yes, with a friend of mine and another and that's the first outing I've had socially probably for about 3 months (...) social side of it is what I'm really missing; the interaction with people (Participant4)

Throughout TFH, technology buddies observed the isolation that some older adults face.

I mean well I shop for a lady and she lives alone, and she never sees anyone from one day to the next, all she does is talk to her son on a phone (...) Most of the time he just stays at home. And yeah, I believe, I think it's important that they have the social contact (Techbuddy1)

I think a lot of the older adults, there are a lot of people out there that would love to learn how to go on the internet and find things, how to Skype, you know how to be in contact with their family in a better – because a lot of them are so isolated all they got is their landline some of them, and you know they don't hear from their family from one week to the next a lot of them (Techbuddy1)

The older adults didn't go anywhere or don't go anywhere much (Techbuddy2)



Social participation

Some older adults in TFH were socially participating by using technology.

I'm constant in contact with them on the phone, and – and the grandkids ring me up (Participant1)

I have got friends from church that are in the area that I keep in touch with by phone or there are two that I do facetime with, but so that's where I'd be using a tablet (Participant4)

It is more commonly not about enabling older adults to socially participate *with* technology but *via* technology. For many, simply having someone to talk to is valuable in TFH.

The lady she chatters on all the time about everything and the old guy he was more refined he'd just, he wasn't very talkative at all really. But when we had tea and biscuits, he would chat about other than the technology things (...) We would chat about his life and you know what he was doing, and you know the fires that had come through because that's, they hadn't been gone long after I was there, so that was sort of you know (Techbuddy1)

You engage with people and they are so happy to have that engagement you know whether it's just that it's not necessarily just the technology, it's just, we were talking about before like the social side of it to have somebody to come and listen to you (Service Provider 2)

We're at least offering them an opportunity to have that social connection with somebody, another human being you know so I think that's definitely added value to their lives or may have improved things for them (Service Provider 2)

That social connection and having the hour's conversation first and then getting down into the technology but building a base for discussion, a base for a relationship (Service Provider 1)

Sustainability

Ongoing relationships

Service providers hoped that TFH would establish ongoing relationships to provide long-term support for older participants learning new technology.

[It is key for technology buddies] to not think that it's just a one off thing and then they're fine, they're going to have to build an ongoing support system (Service Provider 1)

Originally, it'd be two visits but we invited them to continue that relationship so some of them took it upon themselves to do that. Some already had pre-existing relationships with people in their smaller communities so there's a lot of that and I think some of them were probably compelled by those people to come back again because you know they've got that relationship already (Service Provider 2)

Unfortunately, service providers felt that TFH did not quite meet that expectation.

The full potential of what could have been if we had that constant engagement between the volunteers and the clients and even with my interaction with the volunteers. It was on through meeting over the phone and things like that, whereas you know again personal interactions and things I think is much more valuable if you build a rapport with people (Service Provider 2)

However, on a case-by-case basis, some ongoing relationships were formed in TFH.

I still see the lady that did really well, I call in and see her quite often (Techbuddy1)

I just said to them, yeah, like if you need anything, even outside of technology, I don't mind. You know, just give me a call (Techbuddy2)

Use it or lose it

There was a perception among interviewees that if the funding is there to back social programs for older adults, like TFH, it should be used before it is no longer available. Moreover, actively using the resources available may help to keep it going.

I prefer to use that than go to my son because he's got his own things even though he's my techy sort of thing. I'd rather do it so that it keeps this program going. If we all do that and it can move on and help somebody else if we're using the facilities otherwise they mightn't get the ... or things like that for the government to do that for us so we can keep in touch with family and friends and that sort of thing is just absolutely wonderful in my case (Participant4)

Recruitment

Technology buddies and older adults were recruited using radio, mail-outs, brochures, local businesses (e.g., cafés, museums, and pubs), institutions (e.g., universities), and social groups, and word-of-mouth. Services providers hoped to have an influx of technology buddies volunteer for the role, allowing them to be more selective on whom to include. Unfortunately, due to low numbers, this was not possible, and as a result, those technology buddies had to teach more than one older adult.



[I expected] to interview you know sufficient you know 60 or something volunteers and then you know we could be a bit more, pick and choose the right people for the job but it just didn't transpire that way unfortunately because you know we ended up with, we ended up with 19 or 20 volunteers and then that dropped off even more to the point where you know beggars can't be choosers and we ended up with one volunteer looking after 3 clients (Service Provider 2)

They were keen to participate even throughout the era of COVID-19.

Those people were very good people and were prepared to go above and beyond what we'd asked them initially so it's good (Service Provider 2)

Older adults cited several reasons for their recruitment into TFH being successful, including needing to learn technology to keep up, and wanting to learn.

I didn't want to get involved at all. And I fought it and fought it and fought it for years. Until it's become obvious now that you really need to be involved. You need it. Everything has turned towards it, and you're discriminated against if – if you don't have it (Participant1)

What attracted me to the – how did I get involved; I think I heard it on the radio, and I'm always interested in learning (Participant3)

I was very interested in it because with the program happening I could upgrade the old Samsung tablet I had and also plus with that was to get the headphones that I could use with the tablet (Participant4)

Reasons for participating given by technology buddies included wanting to keep busy and feeling a sense of fulfilment by helping others.

I decided I needed something to do because I like to be busy, so I went looking online for volunteers and I ended up at Mid Coast council and I've been there ever since (Techbuddy1)

You're sort of helping people as much – well, you try to help people as much as you can (...) I do enjoy helping people (Techbuddy2)

Technology

Ageism

Most older adults interviewed expressed feelings of being written off due to their age and lack of technology skills (real or presumed).

A lot of the [older] men were getting on-board with computers and things, but the [older] women were frightened of it; the technology. I'm you know, I'm one of them because of the fact that I just had a little flip phone at the time way back and it did me, it was just to talk on the phone (Participant4)

I've still got a brain (Participant2)

But my son in Melbourne has always told me, mum, you don't experiment enough, and I experimented, and it's given me more confidence (Participant3)

Service providers hoped to help curb the stereotype that older adults are technology illiterate and reduce ageism in this area.

I like to show off about I guess is, that older adults can learn to use technology (Service Provider 1)

Just succumbing to the stereotype basically. So being able to say well they can actually, and they do if you give them a chance (Service Provider 1)

Technology literacy

Breaking the stereotype, many older adults taking part in TFH were already technology literate and used their own devices.

I play on the computer (Participant2)

I've got the iPhone, the iPad, and I've had a computer for a long time, I'm probably different to a lot of older adults that haven't had an iPhone (Participant3)

I'd sort of had computers and laptop and tablet that I've previously had was to communicate with them living away from the area and keeping that link with them (Participant4)

However, not all older adults are equally technology literate, and not all of those who have some technology skills can apply them to all other devices intuitively.

I had difficulty with your phone when you rang me, and I just couldn't bring up the icons on the phone that I wanted. I wanted to bring the keypad up so I could ring you back, and it wouldn't come up and – and I think when you're floundering on it, and pushing all the wrong buttons, I think it confuses it, and it seems to shut down (Participant1)

I had a bit of trouble getting used to this printer. I had a printer before. That's an Epson, I forget what my one was, it's in the garage. It was easier to under – it was more plain English if I can put it that way. This was more complicated (Participant3)

Technology buddies

The TFH program launched with the expectation that the one-on-one, intergeneration approach would be the main delivery model. Service providers hoped to recruit younger technology buddies and create lasting younger-older friendly relationships. However, the service provider did not foresee related issues with the intergeneration approach, including some younger persons not understanding the ageing experience and a lack of financial incentive.

Our initial focus on young volunteers, as we were saying before I don't think that was quite on the mark, even though philosophically and whatever we thought it was a nice idea, I just, in terms of the lives that a lot of the young people, just don't think it's realistic (...) there's no incentive (Service Provider 1)

We were talking before about the young volunteer who, even though he'd had the training on how to interact with an older adult, what might be the issues etc, it didn't really change his behaviour I don't believe very much at all (Service Provider 1)

There were a few younger people at the initial workshop which was good to see you know. But I mean a lot of the volunteers are sort of older and some of them may not feel confident to teach other people how to use things (...) You'd have to get a very patient young person to teach an older adult who has no idea, because I think that it would be easy to get a bit impatient with them and you've really got to be very patient with them and persevere (Techbuddy1)



The one-on-one aspect of the approach was also not achieved due to the lack of technology buddies volunteering. Many dropped out due to COVID-19.

We wanted to pair the volunteers, a lot of them hadn't really been in that setting before and ... one on one with these people so we want to get the best outcomes there as well (...) The client's find it more engaging to have one on one personal meetings you know so it didn't really go as well as I'd like in that regard (Service Provider 2)

If the plan had gone the way we had intended it to go with the volunteers, the outcome would have been better again because we would have had a lot more one on one engagement with the clients and we had promised as part of the project (Service Provider 2)

Although the one-on-one intergenerational approach was not realised, the technology buddy approach still had value in TFH. Older adults desired the technology buddy approach, and so they were well-received.

I have three sons who are excellent with IT stuff, but they live so far away, so I really needed a computer buddy or a tech buddy (...) My tech buddy has been marvellous. He is extremely knowledgeable, so obliging, and patience, patience, patience (Participant3)

There was also somebody else he brought, and he has been over on his own, to give instruction (...) There was just two of us together. I think it's a wonderful service (Participant1)

When [technology buddy] came on-board when he rang me to organise to come, he said to me, "In the next few days to think, if you can think about what you want to ask me and just jot it down", because I told him you know, I can't retain things and, "Jot it down what you, the questions you'd like to ask me". And which I did and he helped me with those things when he came. So he spent quite a bit of time with me and helped me a great deal. So I have no complaints about the way they are doing things at all because I've had nothing but a good outcome from it (Participant4)

Technology buddies interviewed had both successes and failures in teaching older adults new technology skills.

I really loved teaching these people how to use their phones. And I had major success with the 89-year-old lady she's really cluey and she's really involved in her phone (Techbuddy1)

I'm not sure how old (client name) was, but she had a memory problem, I would say she had a bit of dementia and she was my only failure actually. Because she couldn't remember anything that I'd told her when I'd go and see her the next time. I'd even try and ring her and she couldn't answer the phone. So, I didn't have much success with her (Techbuddy1)

One older adult interviewed wanted more of an ongoing relationship with their technology buddy, which was not realised.

Unfortunately, I have had ongoing things that I haven't been able to put the time I would like, as yet, into – well, I put some time in, of course, but not as much as I would like, and in the future I'm going to try and get my computer buddy and spend a bit more time with him (Participant3)

Technology needs and solutions

Older adults have distinct needs concerning technology, namely health problems, including deafness, visual impairment, shaky hands, and dementia.

You really do need to consider what they want to get out of that device. For example recently I've probably purchased about 4 flip phones for clients (...) They're actually designed for people, older adults with big buttons on them so they don't have to think (...) it does exactly what they need it to do (Service Provider 2)

I saw a lot of things for older adults [at the showcase], not that I needed them at this stage, hearing and sight, I mean there's so many advances, so quickly with tech stuff that help people with sight and hearing problems (Participant3)

As an example of technology needs, one older adult interviewed sought out technology that is simplistic and ensures privacy.

It was easier to understand – it was more plain English if I can put it that way. This was more complicated. I'm used to it now, but it took a little time (...) I've got a different address on my iPhone and iPad to my computer, and I left it at that because of privacy (Participant3)

A salient issue encountered in TFH was a mismatch between technology-related needs and the solutions received as a part of TFH. Some aspects of the delivery model contributed to this mismatch. One aspect was having salespersons presenting the showcase technology sessions who may not understand older adults' needs in TFH. This problem also extended to technology buddies who did not have experience working with older adults.

If the buddies were – especially the locals – if they themselves were a little bit more experienced in not only the – well, maybe the technology side, too, because I had one lady here who was – was my specific buddy, and she really didn't know a lot more than me. But also, she just really didn't know how to handle people, either (Participant1)

The only problem and as I say assessing the needs of the client is, I thought that was more important than just handing out devices (...) I just think that there's should good assessment of their needs, and then give them what they want (Techbuddy1)

Another aspect was failing to nudge older adults to choose what technology they want during the showcase. Failing to do so allowed older adults' uninformed family to influence their technology choice and left open the possibility for older adults to forget all the available options.

They had two choices at the showcase event, they could either commit to something on the day, or they could go away and I could follow them in a week's time and go (...) you know talk to their family because a lot of them want to talk to their children as well, or what do you think? So gave them that opportunity but then you know down the track actually it was the children that came back later going oh she doesn't need the tablets, she needs a new Smartphone, what are you talking about and of course the client would agree with whatever the children would say to them so it compelled them to do (Service Provider 2)

There were some instances when older adults' needs were effectively matched to technology solutions. These situations emerged when adequate time and care was given to seek out and understand those needs intentionally. For instance, a service provider interviewed recalled that an older German man was given a tablet with an app that allowed him to watch German-language movies. Other instances included an older man who wanted a tablet to read and an older woman who needed a magnifier to read.

It's great to see that sort of thing and you know he's really adopted the tablet, like he you know he loves reading, he's an avid reader (Service Provider 2)

She was looking for magnification of – to read things and bigger screen and then she wanted a white keyboard which would be easier for her to read (Techbuddy2)

Volunteering

Fulfilment

Service providers and technology buddies expressed a great deal of fulfilment in volunteering. Moreover, many technology buddies volunteer in multiple programs or institutions.

I decided I needed something to do because I like to be busy, so I went looking online for volunteers and I ended up at Mid Coast council and I've been there ever since. Just doing you know shopping and taking people to appointments and taking them on outings and so forth, which was really nice (Techbuddy1)

I must say my heart's there. Always socialise there. And I also are the treasurer of the fishing club at that club and I've done a few other things (...) I do enjoy volunteering, doesn't matter in what capacity. Yeah, and if I can learn something from it I'm happy with that as well (Techbuddy2)

A major part of participants' desire to volunteer was the fulfilment one gets when feeling like they are making a difference in someone's life, particularly older adults.

I really enjoy technology, really enjoy technology. I think it's amazing, I don't understand it mind you, but I think it's wonderful and if I can help somebody along with it, I get enjoyment out of it, so I get pleasure for helping them (Techbuddy1)



Just the interaction and knowing that you're sort of helping people as much – well, you try to help people as much as you can (...) guess that's in my DNA, I don't know. Not saying I'm, you know, wonderful or anything but I do enjoy helping people (Techbuddy2)

Personable volunteers

The service providers and technology buddies in TFH were very personable. Some were willing to go above and beyond to ensure that the older participants were accommodated and happy.

It's the personal approach as [MidCoast Assist staff member] been doing, just, and going back and reinforcing and checking in and whatever, and building their confidence (Service Provider 1)

I think I've chosen my staff well and I've chosen the right personalities, most of them are of this type of personality, and when that goes into a client's home, whether it's for cleaning or for other services or whatever, we get very positive feedback (...) I think that's what

marks us a little bit differently, is the social skills of the staff involved you know, and that they genuinely like older adults (Service Provider 1)

[MidCoast Assist staff members] they're both very socially- they're social people (Service Provider 2)

I just said to them, yeah, like if you need anything, even outside of technology, I don't mind. You know, just give me a call (Techbuddy2)



COVID-19

COVID-19 ‘really put a spanner in the works’ (Service Provider 1). Everyone interviewed had something to say about COVID-19. For some older adults, the TFH program had helped them deal with the isolation brought on by COVID-19.

Technology is fantastic in a way, isn't it? It helps, it's helping me a great deal, so it's obvious that in my situation it is a lifesaver in some ways because I'm not, I'm distancing but I'm not cut off (Participant4)

Unfortunately, COVID-19 brought about many negatives. Of most concern, some older adults and technology buddies failed to continue communicating and working together.

I'm not sure about the others. Because of this COVID thing, we haven't been meeting (...) the one who was my buddy, she really – her heart wasn't in it, I felt. And then as soon as COVID – COVID became in, and became a problem, she just said, no, I'm not going out, I'm not leaving home (Participant1)

COVID-19 put a burden on MidCoast Assist, for which they were not prepared.

Keeping the project on track in terms of its milestones and whatever, that's required some extra effort, you know just to make sure we're roughly keeping on track, given COVID (Service Provider 1)

A second training workshop and group activities were cancelled because of COVID-19.

I mean we had plans to do all these things and we even had a second workshop which you know, with you guys, we had to cancel (Service Provider 2)

That workshop was really the only thing that I went to. We were supposed to go to another workshop where we were setting up the devices that the clients had ordered, and then delivering them, but that didn't actually occur because of COVID (Techbuddy1)

Unfortunately, many of the technology buddies dropped out of TFH because of COVID-19 pressures. However, a small number were willing to continue participating while following COVID-19 safety measures or over video and phone calls.

It ended up being a very small number of volunteers. Fortunately some of them were regionally based and were prepared to continue doing what they were doing but it was a lot of logistics that I'd like to take on because I'd lost my volunteers (Service Provider 2)

Because of COVID, that's interfered with it some of them [technology buddies] just didn't want to go out and be out in the town, and have refused to come to the homes (Participant1)

We got the volunteers who were willing to work at that time, we got them to go in and see the clients as well (Service Provider 1)

Even some of the older adults decided to leave the program.

Having COVID come along and then basically put and big dampener on that because you know some of the clients had their own medical needs they need to you know they didn't want to take the risk, so they withdrew from the program (Service Provider 2)

MidCoast Assist adapted its service delivery to observe proper COVID-19 safety measures and keep the TFH program operating.

[MidCoast Assist staff member] was going in wearing a mask because we had to do the one to one, we couldn't do group situations, so we had to do the one to one. So even through that we, because we thought it was a priority to go in when people are so highly isolated, that they really needed this more than ever really, and I didn't want it to be an excuse that we didn't go in and help them in that time (Service Provider 1)

Another major impact of COVID-19 that TFH had to adapt to was that it delayed the technologies being delivered to older adults.

The pandemic is the only thing that I can say has been the downside with the delays. I can't complain about the visits have been terrific and very professional when [MidCoast Assist staff member] did ring me and tell me that the items had arrived and arranged for them to, for him to bring them to me. And he just left them at the door because at that time the COVID, that was what you had to do (Participant4)

The new procedures that MidCoast Assist introduced to deal with COVID-19 created some frustration among participants.

We're all very conscious of the COVID restrictions and that, but I think every time you had to go ... you were going to visit you had to ring them and ask them if they'd been anywhere within the last 14 days, have they done this, have they done that. And you knew what the answer was going to be before you asked them and you could hear a little bit of frustration in their voice (Techbuddy2)



COVID-19 brought about more isolation, especially for older adults. Service providers felt that, at least, COVID-19 shined a light on the isolation older adults often experience and confirmed the importance of TFH.

It's just reinforcement of that social connection thing about human beings. And probably COVID reinforced that as well (...) what everyone missed was, even though we talked to each other on Zoom and phones and whatever, we were in touch every day, the physical thing of seeing another person and having a physical contact with another person I think can't be replaced by any of those things fully (Service Provider 1)

Conclusions



As per the agreement between the MidCoast Assist and CSU, the criteria for the evaluation were as follows.

- **Sustainability:** Is TFH sustainable in that it (1) creates opportunities for new technology buddies to join the program and (2) supports the continuity of involvement from both the technology buddies and older adults?
- **Social participation:** Does TFH effectively promote social participation for older adults?
- **Well-being outcomes:** Does TFH effectively promote well-being for older adults, and what is the impact of technological intervention within TFH on older adults and service providers?
- **Provision:** Does TFH show value for money given the logistical and training considerations for the service providers?

Strengths

Strengths of the model included.

- Adapting the service delivery model to handle the impacts of COVID-19.
- Creating an opportunity for older adults to socially participate in two distinct ways.
 - *With* technology – e.g., connecting to family online or joining a social network, and,
 - *Via* technology – e.g., having a technology buddy visit.
- Recruiting older adults as technology buddies, therefore, improving their confidence and sense of well-being. Older technology buddies were well-received by the older participants.
- Including persons aged 85 and over who are often excluded in the current policy and literature, particularly those relating to technology.

Recommendations

The following recommendations have been derived from an analysis of the observations and interviews conducted by the CSU investigative team.

Sustainability

The MidCoast Assist staff are passionate, professional, and excellent at keeping the older participants involved and informed. In regards to sustainability, there is risk associated with the program if it is dependent on these 'program champions' (Scheirer, 2005) within MidCoast Assist. If key service providers were to move on to another program or experience burnout, TFH might be at risk long-term if the program is handed over to others who are less passionate. To be prepared for this possibility and ensure sustainability, two options are recommended.



1. Bring on more service providers to disperse the workload. These persons could be exemplary technology buddies living locally who might want to join the team permanently. This would have funding implications, as well as the difficulties (experienced in their project) of recruiting such volunteers.
2. The program champions could journal their activities within the TFH program. This material could articulate the key principles and practices for running TFH effectively, acting as a handbook for others running the program. Furthermore, it could be used as evaluative material for future iterations of the program. With a critical mass of volunteers, regular meetings could be held to discuss and document how technology support services can be better delivered.

Interviews indicated that some older adults did not receive technology that suited their needs or matched their learning goals. Future iterations of TFH should focus on ensuring that older participants' learnings goals and technology needs are understood and appropriately matched to a technology solution. Instead of a showcase event, one-on-one meetings could prove more effective. However, that presents its own challenges, in that more human resources would be

required to do this comprehensively. To present the available technologies, short demonstration videos could be produced to showcase each technology's use and benefits.

Most older adults spoke about realising their learning goals in the future rather than having already achieved them as a part of TFH. More needs to be done about meeting learning goals. Either the program needs to encourage more engagement between technology buddies and older participants, or the learning goals need to be simpler so they can be achieved in 3-5 visits with technology buddies.

Service providers, technology buddies, and older adults in TFH are participating in other community-based endeavours. These community connections ought to be engaged to recruit more participants, particularly technology buddies, to ensure sustainability.

There was a high level of participation from some older adults who were well-received as technology buddies in the program. Perhaps for future iterations of the TFH program, this group of older adults can be actively canvassed to recruit more technology buddies. Older adults could relate better to older participants and help to engage them on a personal level.



Social participation

The training workshop and showcase events had problems. To improve the TFH program, the training workshop should be strengthened to better educate technology buddies on delivering one-on-one technology teaching sessions with older adults. Moreover, as the showcase did inspire social participation among older adults but did not successfully match learning goals to technology solutions overall, it should be adapted to focus on the social benefits. Perhaps, smaller events could be held throughout the TFH program to bring groups of older adults and technology buddies together to showcase their technology skills and reflect on their experiences. This change could encourage social participation and well-being outcomes by focusing on socially participating *via* technology.

The technology buddy approach and having regular social check-ins are essential to technology awareness and continued social participation. These aspects of the program should be strengthened.

Technology use furthers already existing relationships with family and friends. Connecting with family through technology was a common learning goal. To better encourage social participation, the TFH program could primarily focus on strengthening family and friendship connections.



Well-being outcomes

The TFH program did create some social connections between the technology buddies and older participants. However, these social connections could be further strengthened by recruiting more technology buddies, so the ratio is not more than one technology buddy to two older participants.

Older adults reported diverse reasons for participating in TFH and individual technology needs. Understanding why an older adult joined the program and their needs could help to create a personalised experience and promote positive well-being outcomes. This should be done during the recruitment process.

Provision

Some technology buddies did not appreciate the learning needs of older adults in TFH. Greater emphasis needs to be placed on educating technology buddies in teaching and learning strategies.

Creating ongoing relationships with other community-based projects is helpful. Doing so could reduce the costs associated with recruitment and advertising. New participants could be brought into the TFH program through these community connections rather than through local advertising.

From the feedback, it is evident that participant selection must be made carefully, and only those participants should be selected who are willing to try out the new technology.

Technology use is not just related to hardware but the social infrastructure needed to maintain its use. The TFH program needs to account for this going forward.

The intergenerational approach was not as successful as the service providers anticipated. However, the one-on-one approach was well-received, and thus it should be the primary service delivery model.

Appendix I – Pre-program Survey

Technology in homes pre-program questionnaire

Thank you for participating in the MidCoast Assist 'Technology in Homes' Program. As part of our funding for this program, we will be conducting an evaluation of what works and what can be improved in this program. This evaluation will be conducted by an independent research team from Charles Sturt University.

We would like to ask some questions about you before you begin the program. We will be passing this information on to the evaluation team. No one else will have access to your information. Your participation will not affect the services you receive from us or other health service providers.

We realise that some of these questions are very personal. You are not obligated to answer any of them, but it is the best way to determine if the program has been of value to you.

By completing this survey, you are giving us permission to share your information with the evaluation team.

1. How old are you?

65-69 years 70-74 years 75-79 years 80-84 years 85-89 years 90+ years

2. What is your gender?

Female Male Other

3. What are your usual living arrangements?

Live with a partner Live with family or other people Live on your own

Other arrangement (please specify) _____

4. Do you currently access any in-home support services or have a carer? Tick any that apply

Yes, I live with a carer

Yes, I have a carer who comes to my house regularly

Yes, I access support services (e.g. house cleaning, meals-on-wheels)

No, I don't have a carer or support services

5. How would you describe where you currently live?

Urban (city)

Regional (town)

Rural

6. Please indicate your highest level of education

- Postgraduate Degree Year 12 or equivalent
- Graduate Diploma or Graduate Certificate Year 10 or equivalent
- Bachelor’s degree Junior High School
- Advanced Diploma or Diploma Primary School
- Certificate III or IV No formal education

7. Is English the main language you speak?

- Yes No *if ‘no’, please tell us what is your main language: _____*

Please tell us what other language/s you speak: _____

8. In the last six months, about how often did you participate in the following activities:

	Never	Less than once a month	Once a month	Once a fortnight	Once a week or more
Provide informal (unpaid) care for friends or family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volunteer for an organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engage in physical activity away from home for exercise or recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend a class or group to learn or for recreation (e.g. music or book club, art class, University of the Third Age)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend an arts event (e.g. go to a movie, concert, play, or other performing arts event)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit a public library, museum or gallery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend a religious or spiritual service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spend recreational time with friends or family away from home (e.g. going to a café, restaurant, park or other outing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit friends and family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Host social gatherings in your own home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked to family (e.g. via phone, skype or similar)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked to friends (e.g. via phone, skype or similar)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Please tell us if you experience any of the following:

	Not applicable	Low	Medium	Severe
Visual impairment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing impairment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobility issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. If you experience visual, hearing or mobility issues, are you interested in technology designed to assist in this area?

Yes No I don't know

11. In general, would you say your health is:

Excellent Very good Good Fair Poor

12. During a typical day, does your health limit you in moderate activities, such as moving a table, pushing a vacuum cleaner, standing up or sitting down, or walking:

Yes, limited a lot Yes, limited a little No, not limited at all

13. During the past 4 weeks, have you had any of the following problems with your regular activities as a result of your physical health?

- a. Accomplished less than you would like: Yes No
 b. Were limited in the kind of activities you could do: Yes No

14. During the past 4 weeks, how much did pain interfere with your normal activities?

Not at all A little bit Moderately Quite a bit Extremely

15. For all questions, please select the appropriate response.

In the past 4 weeks...	None of the time	A little of the time	Some of the time	Most of the time	All of the time
About how often did you feel tired out for no good reason?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel nervous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so nervous that nothing could calm you down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel hopeless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel restless or fidgety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so restless you could not sit still?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel that everything was an effort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so sad that nothing could cheer you up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel worthless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. During the past 4 weeks, how often would you say you felt lonely or isolated?

- Not at all
 Occasionally
 About half the time
 Most of the time
 Almost always

17. Which of the following technology devices do you use? Tick any that apply

- | | |
|---|--|
| <input type="checkbox"/> Desktop computer | <input type="checkbox"/> Wearable device such as a Fitbit, Garmin, or Apple Watch |
| <input type="checkbox"/> Laptop computer or Netbook | <input type="checkbox"/> Home assistant such as an Amazon Echo (e.g. Alexa) or Google Home |
| <input type="checkbox"/> iPhone, Android, Blackberry, or another smartphone | <input type="checkbox"/> Smart TV |
| <input type="checkbox"/> Regular cell phone (not including iPhone or other smartphones) | <input type="checkbox"/> Smart home technology/security (e.g. Nest, Ring, SimpliSafe) |
| <input type="checkbox"/> E-reader such as Amazon’s Kindle or Barnes and Noble’s Nook | <input type="checkbox"/> None |
| <input type="checkbox"/> iPad or another tablet computer | |

18. Do you have an internet connection at home?

- Yes No

19. Do any of the following describe your experience with using technology devices to stay socially connected? *Tick any that apply*

- I'm not comfortable using the technology
- Computer devices seem too impersonal
- I prefer to call instead
- Using computer devices is too time consuming
- I don't know how to use it
- I don't have access/wi-fi/internet speed needed
- I don't trust it will be private
- I have no one to use it with

20. In the last six months, about how often to you use technology like cell phones, computers, and the Internet to:

	Never	Less than once a month	About once a month	A couple of times a month	About once a week	A couple of times a week	Every day
Stay connected with family and friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access online health services and information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Search for information not related to health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Play a game	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shop online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access social networking sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Access entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engage in learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix II – Post-program Survey

Participant ID _____

Technology for homes post-program questionnaire

Thank you for participating in the MidCoast Assist ‘Technology for Homes’ Program. As part of our funding for this program, we are conducting an evaluation of what worked and what could be improved in this program. This evaluation is being conducted by an independent research team from Charles Sturt University.

As you may remember, we asked you to answer a survey before you started the program. Now that you have finished the program, we would like to ask you some of the same questions, as well as questions about your experience in the program. Only the evaluation team will see your responses – the staff at MidCoast Assist, and the volunteers from the program won’t see your specific information. Your participation will not affect the services you receive from us or other health service providers.

There are two options for completing this questionnaire:



Fill out the survey yourself and return it using the return envelope provided.



If you would prefer to talk to someone, please ring ___person, number _____, and we will arrange a time to ring you back and do the survey with you.

We realise that some of these questions are very personal. You are not obligated to answer any of them, but it is the best way to determine if the program has been of value to you.

What devices were you provided with as part of the Technology for Homes program?

1. Have your usual living arrangements changed since you started the ‘Technology for Homes’ program?

Yes No

If yes, what are your usual living arrangements now?

Live with a partner Live with family or other people Live on my own

Other arrangement (please specify) _____

Participant ID _____

2. Do you currently access any in-home support services or have a carer? Tick any that apply

- Yes, I live with a carer
- Yes, I have a carer who comes to my house regularly
- Yes, I access support services (e.g. house cleaning, meals-on-wheels)
- No, I don't have a carer or support services

3. In the last six months, about how often did you participate in the following activities:

	Never	Less than once a month	Once a month	Once a fortnight	Once a week or more
Provide informal (unpaid) care for friends or family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volunteer for an organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engage in physical activity away from home for exercise or recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend a class or group to learn or for recreation (e.g. music or book club, art class, University of the Third Age)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend an arts event (e.g. go to a movie, concert, play, or other performing arts event)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit a public library, museum or gallery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend a religious or spiritual service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spend recreational time with friends or family away from home (e.g. going to a café, restaurant, park or other outing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visit friends and family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Host social gatherings in your own home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked to family (e.g. via phone, skype or similar)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked to friends (e.g. via phone, skype or similar)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Participant ID _____

4. Please tell us if you experience any of the following:

	Not applicable	Low	Medium	Severe
Visual impairment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing impairment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobility issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. If you experience visual, hearing or mobility issues, did you use technology designed to assist in this area as part of the program?

Yes No I don't know

If no, would you be interested in trying different technologies now to assist in these areas?

Yes No I don't know

6. In general, would you say your health is:

Excellent Very good Good Fair Poor

7. Since being part of the Technology for homes program, would you say your health in general is:

Better About the same Worse

8. During a typical day, does your health limit you in moderate activities, such as moving a table, pushing a vacuum cleaner, standing up or sitting down, or walking:

Yes, limited a lot Yes, limited a little No, not limited at all

9. During the past 4 weeks, have you had any of the following problems with your regular activities as a result of your physical health?

- a. Accomplished less than you would like: Yes No
- b. Were limited in the kind of activities you could do: Yes No

10. During the past 4 weeks, how much did pain interfere with your normal activities?

Not at all A little bit Moderately Quite a bit Extremely

Participant ID _____

11. For all questions, please select the appropriate response.

In the past 4 weeks...	None of the time	A little of the time	Some of the time	Most of the time	All of the time
About how often did you feel tired out for no good reason?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel nervous?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so nervous that nothing could calm you down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel hopeless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel restless or fidgety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so restless you could not sit still?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel depressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel that everything was an effort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel so sad that nothing could cheer you up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
About how often did you feel worthless?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. During the past 4 weeks, how often would you say you felt lonely or isolated?

- Not at all
 Occasionally
 About half the time
 Most of the time
 Almost always

13. Since being part of the Technology for Homes program, would you say you have felt lonely or isolated:

- More than before
 About the same as before
 Less than before

14. In the last six months, about how often do you use technology like cell phones, computers, and the Internet to:

	Never	Less than once a month	About once a month	A couple of times a month	About once a week	A couple of times a week	Every day

Participant ID _____

Stay connected with family and friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access online health services and information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Search for information not related to health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Play a game	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shop online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access social networking sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engage in learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Do you have an internet connection at home?

- Yes No

If yes, did you get this internet connection so that you could use any devices received as part of Technology for Homes program?

- Yes No Not sure

16. Do any of the following describe your experience with using technology devices to stay socially connected? *Tick any that apply*

- I'm not comfortable using the technology
- Computer devices seem too impersonal
- I prefer to call instead
- Using computer devices is too time consuming
- I don't know how to use it
- I don't have access/wi-fi/internet speed needed
- I don't trust it will be private
- I have no one to use it with

Participant ID _____

17. Since being part of the Technology for Homes program, would you say your comfort with using technology (tick the one that best describes how you feel):

- Has increased a lot
- Has increased a little
- Has increased, but only for the devices and programs I used in the program
- Is about the same
- Has decreased

18. Now we'd like to ask you about your feeling of safety and security (of personal information and privacy) when using technology.

For each of the situations below, please indicate how safe and secure you feel (tick one box in each row):

	Not at all safe and secure	Slightly safe and secure	Somewhat safe and secure	Moderately safe and secure	Extremely safe and secure
While using devices you received as part of the Technology for Homes program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
While using the internet in general	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. Since the beginning of the Technology for Homes program, would you say your understanding of online safety and security (of personal information and privacy):

- Has increased a lot
- Has increased a little
- Is about the same
- Has decreased

20. Now we'd like you to think about your experience with the Technology for Homes program.

For each of the different parts of the program, please indicate how valuable it was for you:

	Not at all valuable	Slightly valuable	Somewhat valuable	Moderately valuable	Extremely valuable
Initial meetings with MidCoast Assist staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technology showcase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Participant ID _____

Delivery of the device/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Set up of the device/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with your Technology buddy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Thinking about the program overall, how satisfied were you?

<input type="checkbox"/> Very dissatisfied	<input type="checkbox"/> Dissatisfied	<input type="checkbox"/> Neither satisfied nor dissatisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Very satisfied
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22. What did you like most about the program?

23. What would you like to see done differently if the program was run again?

24. Do you have any other comments about your experience with the Technology for Homes program?

25. Finally, new technologies to assist people in day-to-day life are becoming more advanced. If a similar program to Technology for Homes was run where you could experience more advanced technologies, and have a buddy to help you learn to use it, how likely would it be that you would participate?

<input type="checkbox"/> Extremely unlikely	<input type="checkbox"/> Unlikely	<input type="checkbox"/> Neither likely nor unlikely	<input type="checkbox"/> Likely	<input type="checkbox"/> Extremely likely
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Participant ID _____

Why is that?

If you have any other comments about this idea for a similar program focusing on more advanced technologies, please share them with us here:

Thankyou for your time.

Appendix III – Interview Schedule

1. Tell us a bit about yourself, how you got involved in the TIH program, and what attracted you to it?
2. Can you please tell us about your experience of the program? What did you do?
3. What did you like and dislike about the program?
4. What did you get out of it?
5. What were you hoping to get out of it, but didn't?
6. What did you think about the tech buddy approach?
7. If you could make any changes to the program, what would they be?

Appendix IV – Charles Sturt University Human Research Ethics Committee Approval Letter

Appendix V – Consent Form



Faculty of Business, Justice and Behavioural Sciences

PARTICIPANT CONSENT FORM 'Technology in Homes' Project Evaluation

Chief Investigator: Professor Oliver Burmeister
School of Computing and Mathematics
Charles Sturt University, Bathurst
Phone: 6338 2633
Email: oburmeister@csu.edu.au

The purpose of the research has been explained to me, including the associated risks and discomforts. I have read the attached Participant Information Sheet on the above named study, and understand the purpose and procedures described within it. I have been given the opportunity to ask questions about the research and received satisfactory answers.

I understand that I am free to withdraw my participation in the research at any time, and that if I do, I will not be subjected to any penalty or discriminatory treatment. Nor will my services with MidCoast Assist in any way be impacted by withdrawing from this study.

Please read the following statements carefully and tick the boxes to agree, where applicable:

- I have been made aware of any known or expected inconvenience, risk and discomfort and of their implications as far as the researcher currently knows them. I understand that due care is provided at all times.
- I agree to participate in a survey
- I agree to participate in an interview, including a survey, and to the interview being audio recorded.
- I agree that research data gathered from the results of the study may be published, provided that I cannot be identified.
- I have been advised to retain the Participant Information Sheet.
- I understand that if I have any complaints or concerns about this research I can contact:

The Executive Officer
Human Research Ethics Committee
Tel: (02) 6338 4628
Email: ethics@csu.edu.au

Name of Participant

Signature of Participant

Date

Appendix VI – Participant Information Sheet



Faculty of Business, Justice and Behavioural Sciences

PARTICIPANT INFORMATION STATEMENT

'Technology in Homes' Program Evaluation

Researchers

This study is being undertaken by a research team from Charles Sturt University (CSU). The lead investigator is Professor Oliver Burmeister. Other members of the team are: Professor Russell Roberts, Associate Professor Susan Field, Dr Holly Randell-Moon, Dr Sabih Rehman, Dr Anwaar Ul-Haq, Dr Jenni Greig and Mr Adam Poulsen, all from CSU.

Why is this research being done?

The CSU research team has been commissioned by MidCoast Assist to undertake an independent evaluation of the Technology in Homes (TIH) program. This is a new program designed to support older people in the MidCoast area to use technology in their homes. It is important that newly developed programs are carefully evaluated to assess whether the program is effective and to identify whether changes and improvements are needed. We are seeking to interview a range of people who have been involved with the program to gather information for this evaluation.

Who can participate in this research?

We are seeking to collect information from older participants in the program (and their carers, if relevant), as well as stakeholders such as tech buddies, trainers and other service delivery personnel.

What would you be asked to do?

A smaller number of older participants and other stakeholders (such as tech buddies and trainers) will be invited to participate in an interview about the program. If you have been a participant in the program (even if you didn't stay in the program until the end), or another stakeholder, you will be asked if you consent to MidCoast Assist passing on your contact details for the purpose of this evaluation.

If your details are passed on, and you are selected, you will be contacted and invited to participate in an interview. As part of the interview, we will ask you about:

- Your experiences with the TIH program, both positive and negative;
- What, if anything, you got out of the program; and
- Any improvements which could be made to the program.

Taking part in this research is your choice. If you are invited to take part in an interview, you are not obligated to say yes. If you do choose to participate, you are welcome to have a support person present during your interview. Only people who give informed consent will be included.

You can contact any of the research team to ask questions before you consent to participate.

Whether or not you decide to take part, your decision will not disadvantage you in any way. Your decision will not affect the services that you receive from the service provider who told you about this research. You may also stop your participation before the interview is over. There will be no negative consequences if this happens.

The interview will be audio-taped so that it can be transcribed into writing. It can be stopped at any time if there is any interruption, or if you need a break.

How much time will it take?

The interviews will be about one hour, depending on how much you want to tell us.

What are the risks and benefits of participating?

No risks to you are foreseen. The possible benefits of participating in this research will be that you have the opportunity to have your experiences and perspective heard in a way that could influence the future development of the TIH program, and programs like it. Your experiences and perspectives may be helpful for others who could benefit from the program.

However, if, in the course of participating an interview, you experience any distress, support is available. We have provided a list of suggestions at the end of this information sheet.

“It is possible that some participants’ answers indicate that they are at risk of distress, this study is not a clinical assessment and there may be numerous reasons for this response. If this occurs a research team member will be in contact to provide advice, as well as clinical referrals if requested.

How will your privacy be protected?

The information that you provide will be kept confidential, and we will not use your real name in any written or verbal reports of this study. Your data will be kept in password-protected drives and locked filing cabinets of two team members while it being collected. Everything you share with us will be anonymous. All recorded and transcribed data will be de-identified. We can provide you with a copy of the transcript of your interview if you would like to review it and make and changes or clarifications before we remove all identifying information and add it to our database of information. We will give you one week from when we send you the transcript to let us know if you have any changes or clarifications.

You will be given a pseudonym that will be used instead of your real name if anything you say is quoted.

In exceptional circumstances we may be required to disclose information you have provided. This might occur where either:

1. Law requires disclosure; for example, if you were to advise us that you were the victim of a criminal act arising from during your receipt of health services; or
2. If you were to advise us of serious misconduct or negligence by a healthcare staff member

While these circumstances are extremely rare, these provisions exist to ensure that all unsatisfactory



conduct within the NSW Health system receives appropriate attention.

A qualified transcriber will type up the audio-tapes of the interview, this person will be bound by confidential rules. Apart from the transcriber, the only other people to have access to this information will be the research team who will also remain confidential. The transcriptions will not be made available to MidCoast Assist. At the completion of the study, all the de-identified research material obtained from the study will be kept on the Bathurst campus of CSU for a period of 5 years after which it will be destroyed.

How will the information be used?

The results from this study will be included as part of the overall evaluation of the TIH program. It may also be published in academic journals. You will not be able to be identified in any of the reported data.

What do I need to do to participate?

Please read this information sheet carefully. Let the MidCoast Assist Project Officer know that you are happy for your contact information to be passed on to the CSU research team, so that they may contact you about participating in an interview.

You will be contacted at the end of the program by one of the CSU team members. You are free at that time to decide not to participate. If you do decide to participate, we will arrange a time and place that is convenient to you.

This information sheet is for you to retain so that you have a reminder of what is involved in the research. It also has the contact details of the researchers and the Charles Sturt University Ethics in Research Committee. A consent form will be provided to you if you decide to participate in an interview. The consent form will need to be signed prior to your participation in the interview.

Questions/Further information about the project

If you have any questions or require any further information, please contact one of the CSU research team members below.

Professor Oliver Burmeister
SCM, CSU Bathurst
Phone: 02 63382633
Email: oburmeister@csu.edu.au

Professor Russell Roberts
School of Management & Marketing, CSU Bathurst
Phone: 02 6338 6249
Email: rroberts@csu.edu.au

A/Professor Susan Field
sufield@csu.edu.au

Dr Holly Randell-Moon
School of Indigenous Australian Studies, CSU Dubbo
Phone: 02 6885 7394
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Dr Sabih Rehman
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Complaints/Concerns about this project

This research has been approved by CSU Human Research Ethics Committee.

CSU is committed to research integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact:

The Executive Officer
Human Research Ethics Committee
Tel: (02) 6338 4628
Email: ethics@csu.edu.au

In the event you feel discomfort or distress while participating in this project support may be sought from:

Your GP

Lifeline Australia
Phone: 13 11 14
Online chat: <https://www.lifeline.org.au/get-help/onlineservices/crisis-chat>

Beyond Blue
Phone: 1300 22 4636
Online chat: <https://online.beyondblue.org.au/WebModules/Chat/InitialInformation.aspx>



Appendix VII – Your Experience of Service (YES) Survey

SCHEDULE B to YES SUB-LICENCE AGREEMENT

Your Experience of Service

SERVICE NAME

Service code stamped here

STATE OR SERVICE LOGO

Your feedback is important. This questionnaire was developed with mental health consumers. It is based on the Recovery Principles of the Australian National Standards for Mental Health Services. It aims to help mental health services and consumers to work together to build better services. If you would like to know more about the survey, please ask for an information sheet.

Completion of the survey is voluntary. All information collected in this questionnaire is anonymous. None of the information collected will be used to identify you. It would be helpful if you could answer all questions, but please leave any question blank if you don't want to answer it.

Please put a cross in just one box for each question, like this . . .

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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These questions ask **how often** we did the following things . . .

Thinking about the care you have received from this service within the last 3 months or less, what was your experience in the following areas:	Never	Rarely	Sometimes	Usually	Always	Not applicable
1. You felt welcome at this service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Staff showed respect for how you were feeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. You felt safe using this service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Your privacy was respected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Staff showed hopefulness for your future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Your individuality and values were respected (such as your culture, faith or gender identity, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Staff made an effort to see you when you wanted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. You had access to your treating doctor or psychiatrist when you needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. You believe that you would receive fair treatment if you made a complaint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Your opinions about the involvement of family and friends in your care were respected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking about the care you have received from this service within the last 3 months or less, what was your experience in the following areas:	Never	Rarely	Sometimes	Usually	Always	Not applicable
11. The facilities and environment met your needs (such as cleanliness, private space, reception area, furniture, common areas, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. You were listened to in all aspects of your support or care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Staff worked as a team in your care and treatment (for example, you got consistent information and didn't have to repeat yourself to different staff)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Staff discussed the effects of your medication and other treatments with you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. You had opportunities to discuss your progress with the staff caring for you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. There were activities you could do that suited you	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. You had opportunities for your family and carers to be involved in your treatment and care if you wanted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

These questions ask **how well** we did the following things . . .

Thinking about the care you have received from this service within the last 3 months or less, what was your experience in the following areas:	Poor	Fair	Good	Very Good	Excellent	Not applicable
18. Information given to you about this service (such as how the service works, which staff will be working with you, how to make a complaint, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Explanation of your rights and responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Access to peer support (such as information about peer workers, referral to consumer programs, advocates, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Development of a care plan with you that considered all of your needs (such as health, living situation, age, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Convenience of the location for you (such as close to family and friends, transport, parking, community services you use, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As a result of your experience with the service in the last 3 months or less please rate the following:	Poor	Fair	Good	Very Good	Excellent
23.The effect the service had on your hopefulness for the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.The effect the service had on your ability to manage your day to day life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.The effect the service had on your overall well-being	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.Overall, how would you rate your experience of care with this service in the last 3 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please provide any extra comments

27. My experience would have been better if...

28. The best things about this service were ...

The information in this section helps us to know if we are missing out on feedback from some groups of people. It also tells us if some groups of people have a better or worse experience than others. Knowing this helps us focus our efforts to improve services. No information collected in this section will be used to identify you.

What is your gender? Male Female Other

What is the main language you speak at home? English Other

Are you of Aboriginal or Torres Strait Island origin? No
 Yes - Aboriginal
 Yes - Torres Strait Islander
 Yes - Aboriginal and Torres Strait Islander

What is your age? Under 18 years 18 to 24 years
 25 to 34 years 35 to 44 years
 45 to 54 years 55 to 64 years
 65 years and over

How long have you been receiving support or care from this service? Less than 24 hours
 1 day to 2 weeks 3 to 4 weeks
 1 to 3 months 4 to 6 months
 More than 6 months

Did someone help you complete this survey? No
 Yes - family or friend
 Yes - language or cultural interpreter
 Yes - consumer worker or peer worker
 Yes - another staff member from the service
 Yes - someone else

This area would be modified depending on state/territory or organisation, to add

- *Instructions for where to send completed questionnaire*
- *Contact details for extra information*

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Appendix VIII – Evaluation Criteria Breakdown

Sustainability

Ongoing support after the program concludes through connecting the older adults with younger people as a ‘tech buddy’.

Long-term sustainability of TFH through the recruitment of new tech buddies.

Social participation

Social participation, access, experiences of the service, and the provision of the service within TFH.

Social support: companionship and individual face-to-face contact.

Social connection: making and maintaining friendships.

Accessing online services: access to MyAgedCare and other online services and information.

Further online accessibility: internet banking, online shopping.

Well-being outcomes

Promoting well-being: benefits and limitations of the model for this age group in terms of well-being.

Enabling independence: the use of technology as a foundation facility to support them to live as independently as possible in their homes by staying connected, reducing risks and promoting well-being.

Provision

Interoperability of services: how TFH fits within the existing MidCoast Assist approach and services.

Resourcing, recruitment, training and other logistical issues associated with implementing the TFH model.

Appendix IX – Additional Data Collected

Pre-program survey

Table 24. In general, participant rates their health as:

Response	Number of participants	Percent
Excellent	2	3.4
Very good	11	18.6
Good	29	49.2
Fair	14	23.7
Poor	3	5.1

Table 25. During a typical day, participant health limits moderate activities:

Response	Number of participants	Percent
Yes, limited a lot	25	42.4
Yes, limited a little	25	42.4
No, not limited at all	9	15.3

Table 26. During the past four weeks, has physical health meant that you accomplished less than you would like?

Response	Number of participants	Percent
Not answered	1	1.7
Yes	33	55.9
No	25	42.4

Table 27. During the past four weeks, has physical health meant that you were limited in the kind of activities you could do?

Response	Number of participants	Percent
Not answered	1	1.7
Yes	38	64.4
No	20	33.9

Table 28. During the past four weeks, how much did pain interfere with normal activities?

Response	Number of participants	Percent
Not at all	11	18.6
A little bit	20	33.9
Moderately	13	22.0
Quite a bit	7	11.9
Extremely	8	13.6

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Professor Oliver Burmeister specialises in health information systems. He leads the cross-faculty Health Services Research area at CSU. He is also the Presiding Officer of the CSU Human Research Ethics Committee.



Professor Russell Roberts brings his experience as a clinical psychologist and executive director of a large mental health service. In his current work he focusses on leadership and the physical health of people with mental illness. He is a board member of the ANZ Mental Health Association and Editor in Chief of the Australian Journal of Rural Health. He is currently leading large project across 15 NSW Health LHDs to enhance the physical health of older people living with mental illness.



Dr Holly Randell-Moon has conducted participatory informed, mixed-methodological research on regional communities, digital infrastructure, and digital divides. She has numerous publications on media literacy, digital infrastructure and social inclusion, and marginalised communities. She is currently undertaking research on creative ageing and the creation of media in residential aged care facilities.



Dr Sabih Rehman has expertise in the areas of wireless sensor communications and information security. Sabih's current research is focused on the emerging areas of Internet of Things (IoT), Robotics and Big Data Analytics especially in the domains of E-Health, Intelligent Transport Systems, Environmental sustainability and Precision agriculture with the aim to positively influence social, economic and environmental sustainability of communities in rural Australia via digitally enabled solutions.



Dr Anwaar UI-Haq is serving as a lecturer and deputy leader of Machine Vision and Digital Health Research in the School of Computing and Mathematics, Charles Sturt University. Anwaar holds a PhD from Monash University, Australia. He has worked as a research fellow at the Institute for Sustainable Industries & Liveable Cities, Victoria University, Australia. He received a Charles Sturt Teaching Excellence Award in 2018. His research interests include signal and image processing, deep learning, data analytics and computer vision. He has published more than 50 peer-reviewed papers in reputed journals and conferences.



Dr Jenni Greig has a background in Psychology. She has a broad interest in the way people think and behave, how they are shaping and being shaped by social processes. Jenni has worked for many years as a Research Officer across a variety of research projects. Her interests lie in designing high-quality research, both qualitative and quantitative, to have real-world impacts on people's lives and further knowledge. Jenni teaches the Psychology of Ageing and Research Methods subjects.



Adam Poulsen studies the ethics and design of technology. He is a PhD candidate at Charles Sturt University, principally supervised by Professor Oliver Burmeister. Adam has published works on care robots, value sensitive design, robot and machine ethics, professional ethics, diversity and inclusion in technology, and information systems. His recent work addresses LGBTIQ+ aged care and loneliness.

Acknowledgements

We thank A/Professor Susan Field for her involvement in the early stages of this project.



A/Professor Susan Field is an Australian Legal Practitioner who has worked both in practice and academe in the area of Elder Law for close to twenty years. During this time Sue has researched, consulted, taught, published, and presented widely in this emerging speciality. Sue is currently a member of the following NSW Law Society's Committees, Elder Law, Capacity and Succession and Rural Issues; a member of the ALRC Elder Abuse Advisory Committee, a Distinguished Fellow at the Canadian Centre for Elder Law, a Research Fellow at UWA and a Lead Investigator in the Cognitive Decline Partnership Centre.

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