Metro North Telehealth Co-Design Project

Solutions and Recommendations to Optimise Consumer Choice, Advocacy and Awareness of Telehealth

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For more information, contact:

Royal Brisbane Allied Health Professions Metro North Hospital and Health Service, Royal Brisbane and Women's Hospital, Cnr Bowen Bridge Road & Butterfield Street, Herston, QLD 4006, email RBWH-CAHR@health.qld.gov.au.

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Executive summary

The aim of the **Metro North Telehealth Co-Design project** was to co-design a solution to improve consumer awareness and choice in accessing telehealth (video call). Our project centred lived experienced, reflected in the governance and leadership structures. Project leadership was shared equally between a consumer co-lead and clinician researcher co-lead, with multiple people filling both roles over the course of the project.

This project follows on from the findings of a mixed-methods evaluation and concept mapping of priorities to improve and sustain telehealth following the COVID-19 pandemic response, within the Allied Health Professions service line at the RBWH. Concept mapping with key stakeholders (inclusive of management, clinical and administrative staff, and consumer representatives) identified strategies addressing consumer feedback, consumer awareness, resources tailored to consumer's needs and consumer advocacy and support as top priorities to improve the sustainability of telehealth[1].

This report outlines the co-design process and outcomes of **Stages 1, 2a and 2b,** which included workflow mapping of 11 Metro North Health services and interviews with 33 service users. We conducted further community consultation with 45 consumers from priority groups (Aboriginal and Torres Strait Islander people, CALD, people with disability and LGBTQIA+) and co-designed solutions and recommendations with a co-design team of 20 people (10 consumers, 9 health service staff, 1 academic partner), across 4 workshops.

The solutions to improve consumer awareness and choice in accessing telehealth are:

- **Telehealth Assist**: a model of care with a patient-facing telehealth nurse (or inter-professional clinician) to coordinate care, and an upskilled administration team, aimed at improving the telehealth experience and outcomes for consumers.
- **Digital Resource and Online Information Hub**: consumer-facing information and resources about telehealth that is presented in an inclusive and accessible way.
- **Waiting Room Video**: a video developed by consumers for consumers to understand the problem, solution, how telehealth works and its potential benefits.
- **System flexibility and support**: improving choice for consumers on how they attend appointments can be supported through integrated referrals, greater choice and changing mode of appointments, greater flexibility in accessing appointments supported by the workforce and community hubs with telehealth capacity.

The four solutions, above, were prototyped and refined through an experienced-based co-design process, along with supporting recommendations, detailed below:

Education and Information Recommendations

1. Develop Metro North 'Telehealth 101' digital resources and online information hub
2. Information delivered in digital and non-digital mediums, in partnership with community organisations
3. User-centred design, plain and easy English, aphasia-friendly, translated resources
4. Communication and marketing plan for videos and online hub
5. Partner with the Department of Health and Clinical Excellence Queensland to produce videos

Telehealth Assist Recommendations

6. Link with 'Telehealth 101' digital resources and waiting room video
7. Ensure model of care supports opt-in and criteria-led referral
8. Scope demand, priority services and potential users
9. Develop a concept brief and pilot

System Support Recommendations

10. Map community hubs and identify opportunities for potential future hubs
11. Address barriers to clinician uptake of telehealth
12. Test and Evaluate solution checklist and use as a self-assessment for telehealth improvement
13. Improve Queensland Health system flexibility to change appointment and communication preferences at any time

1 Introduction

1.1 Project Overview

This project follows on from the findings of a mixed-methods evaluation and concept mapping of priorities to improve and sustain telehealth following the COVID-19 pandemic response, within the Allied Health Professions service line at the RBWH. Concept mapping with key stakeholders (inclusive of leadership, clinical and administrative staff, and consumer representatives) identified strategies addressing consumer feedback, consumer awareness, resources tailored to consumer's needs and consumer advocacy and support as top priorities to improve the sustainability of telehealth[1].

Clinical Excellence Queensland Telehealth funded this quality improvement project within Metro North Health. The overarching goal was to co-design a solution to improve consumer awareness and choice to access telehealth (video call). The project engaged services and consumers across Metro North Health, inclusive of both hospital and community health services. Stage 1 of the project (January to July 2022) sought to understand the current state of telehealth in Metro North Health through interviews with 33 consumers who had used telehealth, and workflow mapping of 11 Metro North services across Redcliffe, STARS, TPCH, RBWH and Community and Oral Health. Consumers identified many aspects of telehealth care that were working (positive appointment experience, technical support, benefits over in-person appointments, capability and interpreter access), as well as barriers to choosing whether their appointment would be in-person or via telehealth. Stage 2 of the project (July 2022 to June 2023) engaged with priority communities including Aboriginal and Torres Strait islander people, culturally and linguistically diverse communities, people with disability and the LGBTQIA+ community to understand their insights and create a comprehensive map of barriers to choice (see page 6). A co-design team involving 20 participants (10 consumer representatives, 9 MNH staff, one academic partner) was then established to identify priority areas for improvement and prototype potential solutions across 4 co-design workshops.

1.2 Project Team and Governance

The project embedded principles of co-design into the governance structure, incorporating consumer leadership and external perspectives. The **project team** included one consumer representative (co-lead role, shared over Stages 1 & 2 between Peter Button and Anja Christoffersen) and three HP researchers (co-lead role and additional support for exploratory data collection and analysis, by Michelle Cottrell, Emily Arthur and Kelsey Pateman). The project team actively coordinated project management, data collection, analysis, and co-design workshop facilitation. All decision making was collaborative, with consumer views prioritised. The project **Steering Group** is listed in the table below.

Stage 1	Stage 2
Peter Button, Consumer Co-lead	**Anja Christoffersen,** Consumer Co-lead
Michelle Cottrell/Emily Arthur, HP Co-leads	**Michelle Cottrell/Kelsey Pateman,** HP Co-leads
Adrienne Young, Research Coordinator, Dietetics & Food Services	**Adrienne Young,** Nutrition and Dietetics Research Coordinator
Amber Jones, Occupational Therapy Clinician Researcher	**Amber Jones,** Occupational Therapy Clinician Researcher
Christine Petrie, Manager Metro North Consumer Engagement	**Christine Petrie,** Manager Metro North Consumer Engagement
Clare Burns, Speech Pathology Clinician Researcher	**Clare Burns,** Speech Pathology Clinician Researcher
Gary Power, Consumer Representative	**Daniel Best,** Telehealth Support Unit, Clinical Excellence Queensland
Kelsey Pateman, RBWH AH Principal Research Fellow	**Kate Dickson,** Director, RBWH Specialist Outpatient Department
Linda Cuskelly, Program Director Telehealth Services, Metro North Health	**Linda Cuskelly,** Program Director Telehealth Services, Metro North Health
Peter Buttrum, Executive Director Allied Health	

[1] Burns CL, Cottrell M, Jones A, Foley J, Rahmann A, Young A, Cruickshank M, Pateman K. Prioritising enhancements across allied health telehealth services in a metropolitan hospital: Using a concept mapping approach. J Telemed Telecare. 2022 Dec;28(10):740-749. doi: 10.1177/1357633X221122106. PMID: 36346933.

Co-Design workshops were co-led by Kelsey Pateman (clinician researcher) and Anja Christoffersen (consumer representative), supported by Angela Chang (research coordinator) and Jessica Cheers (experience designer and external facilitator), the project team made decisions with a co-design team and were guided by the project steering committee.

Consumer engagement was central to this project, embedded in the project team (3 consumer representatives), steering group (3 consumer representatives), and as co-leads across Stages 1 and 2, to ensure that the consumer was always centred in decision making. Consumers were involved at the 'collaborate' and 'empower' levels of the IAP2 spectrum of public participation throughout the project[2].

1.3 Consumer Engagement and Co-Design Snapshot

The project outcomes, solutions and recommendations are informed by the lived experience and expertise of 88 consumers and community members and the collaborative work of 20 co-designers.

Stage 1 engaged 33 consumers of Metro North telehealth services using semi-structured interviews, co-led by Peter Button, a consumer representative, and a HP project officer (Emily Arthur)

Stage 2(a), engaged 45 consumers through community consultations to understand their perspectives of telehealth, barriers to access and acceptability of telehealth. These consultations were conducted in community settings, or online to meet accessibility needs, and included engagement with:

- G11 (Mater Refugee Health Advisory Group)
- Metro North Community and Oral Health Yarning Circle
- Brisbane North Yarning Circle
- LGBTQIA+ (via an online community survey)
- People with chronic disease and disability (via an online focus group)
- Metro North community representatives, coordinators and connectors (informal interviews)

Findings from stages 1 and 2(a) were analysed using deductive and inductive content analysis and were consolidated with results from workflow mapping and presented as stimulus material for stage 2(b), co-design workshops. The findings were consolidated into **'what's working'** with current telehealth service delivery and consumer experiences and '**barriers to choice',** summarised in Figure 2, over the page. A summary of the workflow mapping results are provided as Appendix A.

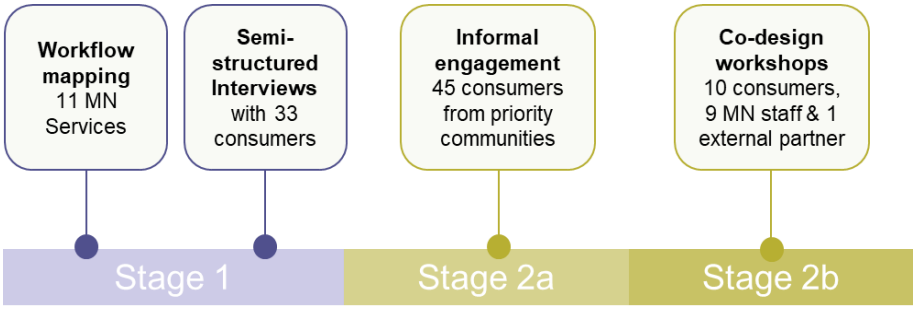

Figure 1: Consumer engagement summary

[2] IAP2 Public Participation Spectrum, 2019. Available from: IAP2 IAP2 Public Participation Spectrum - IAP2 Australasia

Stage 2(b) engaged 10 consumers, 10 Metro North staff, and one academic partner as an 'external provocateur', over 4 co-design workshops. Half of the co-design team were consumers to ensure equal power balance between lived and professional experience within the team. Consumer members represented intersectionality and diversity including age, gender, sexuality, disability, carer perspectives, geographic location (including rural and remote), cultural background and First Nations Peoples. Metro North staff represented clinicians (health practitioner and nursing), nurse navigators, administration and management. The external provocateur was a telehealth researcher external to Metro North. Staff were recruited to ensure maximum variation in work location and services. Participants were brought together online for 4 co-design workshops and a final hybrid online and in-person celebration event, with the following structure:

1. **Problem identification:** Presenting findings from stage 1 and 2a and working through a series of participatory activities to identify key problem areas.
2. **Ideating**: Exploring ideas that could address key problem areas and developing a checklist for consumer-centric solutions.
3. **Creating**: Creating prototypes of our chosen ideas through developing a role description and story boarding a waiting room video
4. **Refining**: Refining prototypes from workshop 3 and discussing recommendations
5. **Presenting and Celebrating:** Presenting and celebrating our solution and recommendations with the Metro North community.

Figure 2: Results from consumer interviews: What's working with telehealth

What's working

Appointment experience

- Many participants shared that their telehealth care was as good as an in-person appointment
- Video is a better experience than telephone
- While they often prefer the "personal touch" of in-person appointments, First Nations peoples are generally supportive of telehealth
- A screen can provide a sense of safety

Benefits over in-person appointments

- More convenient, easy and comfortable than travelling to hospital appointments
- Less time waiting to be seen
- Enables care when physically or mentally unwell or immunocompromised
- Access to doctors who are not local, but have greater expertise
- Money saved on travel and parking
- The lack of face masks allowed for better conversation and reading of facial expressions

Interpreter access

- Metro North had been preparing for virtual interpreters prior to COVID, so are performing much better with access than other HHS'

Capability

- Connecting to telehealth was simple but some people needed extra help before their first appointment

Tech support

- While there are some technological issues like connection or audio/video problems, these tended to be resolved quickly

Figure 2: Barriers to choosing telehealth

Barriers to choice

Before the appointment

- **Assumptions:** Assumptions are made about who is and isn't suitable for telehealth
- **Awareness:** consumer lack of understanding of what telehealth appointment is *"I didn't fully understand it – when they said telehealth, I thought it was on the telephone".*
- **Options:** Consumers not given a choice to use telehealth or not
- **Communication:** Lack of knowledge about what to expect from the first telehealth appointment
- **Flexibility:** Need to be able to change the mode of appointment (back to in person or to telehealth) at any time.
- **Support:** Not enough to be given a choice, consumers need support to be able to act on that choice. That could be access to technology, help connecting, reliable internet or a quiet and private place to connect from.

During an appointment

- **Quality of care:** Difficulty with building rapport over the telephone, *"I didn't feel the clinician was as prepared as they would be for a normal appointment".*
- **Trust and privacy:** Usually trust would be built with a clinician in person, it's harder through a screen.

After the appointment

- **Follow up:** Delay in receiving following up information, referrals for further tests or scripts, *"If it was a face to face appointment I would be able to take the paperwork home with me and ask questions. With telehealth I have to wait for it to be posted out to me."*

2 Co-Designed Solutions

The following solutions were designed in response to the priorities to improve consumer choice and advocacy, determined through co-design workshops 1 and 2. These priorities were education, support, and communication. Participants worked through a series of participatory exercises to rank the barriers to choose telehealth as a care option, by their urgency to address, plus identified additional barriers.

The solutions (below) were proposed by the co-design group and should be considered inter-dependent for maximum success.

2.1 Telehealth Assist

Telehealth Assist was voted the top solution to prototype, via a process of democratic voting during co-design workshop 2. The focus of this solution is to improve the appointment and follow up experience, with emphasis on improving the emotional aspects of care and building trust. Telehealth Assist describes a model of care with intended outcomes of: improving the consumer experience of telehealth, promoting choice, building trust and reducing appointment wastage/inefficiencies. The model of care centres around two roles: a telehealth nurse, or other interprofessional clinician (new role) and administration officers (existing roles). The Telehealth Assist workflow for these roles is in Appendix B.

Telehealth Nurse/Clinician

The 'Telehealth Nurse/Clinician' is a new role that is essential to the telehealth assist model of care. The role is a patient-facing care coordinator with a clinical background, who enables improved telehealth care for patients. Similar patient-centred roles exist in Mackay ('Telehealth Nurse - Mackay') and are modelled on Nurse Navigators and Aboriginal Health Workers in the community. The responsibilities of the Telehealth Nurse include:

- Central point for consumer, administration and clinician contact
- Ensure that patients have all the necessary information and equipment (e.g. script, referrals) before and after a telehealth appointment
- Triage cases and talk with the administration officer about the timing of the appointment, ensuring telehealth is still appropriate and all tests have been completed before the appointment
- Answer patient/support person questions about health or follow up (tests, scripts)
- Follow up with patients after telehealth appointment about their experience, next steps and to clarify any questions.

NB: This role was described by the co-design group as a Telehealth Nurse, however depending on the service this role may be filled by an inter-professional clinician, i.e. nurse or health practitioner.

Administration Officer

Although administration officers have an existing role to support telehealth appointments within Metro North; the Telehealth Assist model would require a change in function to specifically work in partnership with the Telehealth Nurse, managing and changing telehealth bookings (as required) and providing technical support to patients. In most Metro North Health services administration officers are already managing telehealth bookings, however, they do this alongside supporting in-person appointments and other administrative duties.

The partnership between administration officer and telehealth nurse is a critical success factor in the model of care operating in Mackay Hospital (which formed the basis for the Telehealth Assist solution).

The responsibilities of the administration officer are:

- Technical support for consumers
- Booking appointments
- Liaising with and booking interpreters
- Providing pre-appointment information, setting expectations, and explaining what is required before the appointment
- Changing the appointment time or mode
- Introducing patients to the Telehealth Nurse

Benefits

The Telehealth Assist model of care presents key opportunities for consumers and the health service to improve patient experience and outcomes, as co-designed by major stakeholders involved in telehealth services. The model of care would improve:

- Access and support for people who typically miss out, or think telehealth is 'not for them'
- Care coordination, for example, following up missing scripts or pathology/imaging requests, improved communication between the service and consumer, leading to a reduction of 'wasted appointments'
- Liaison with primary care, community and support services

Challenges

There are challenges that require consideration in order to successfully pilot and implement the Telehealth Assist model of care. The key questions requiring further investigation that arose from the co-design team and steering group included:

- Managing the volume of appointments and scope of the model in larger facilities
- How to determine identification of patients who need support and follow up (criteria-led/needs-based), and communicate the availability of the MOC to patients who may not be identified but still need support (opt-in)?
- If a new role cannot be created, can the responsibilities be incorporated into an existing role (e.g., clinic nurse)?

To address these challenges, accompanying recommendations for Telehealth Assist have been co-designed in Recommendations 3.2.

2.2 'Telehealth 101' Digital Resources and Online Information Hub

Two solutions, 'Telehealth 101' and 'Flexibility, Always' were combined to form this solution, as we heard that digital resources on an online information hub are crucial to ensure that consumers have access to information and education to support them to make informed decisions about how they want to access their care. This requires an:

- Online hub as a single repository of information, videos and key contact information
- Key information conveyed simply with images, easy and plain English, and translated resources
- Information conveyed in images and videos, including videos with real people to show process and telehealth experiences that involve support people and/or interpreters and demonstrate how to prepare, builds trust and confidence in the quality of care (*see Waiting Room Video)*

The information that is needed to be included, is:

- What to expect for an appointment, and what is expected of me? (Expectations of clinicians/consumers)
- Etiquette for clinicians and consumers (Dos & Don'ts)
- What consumers need for telehealth - device, to have ready, prepare, connect
- Alternative options - how to change your mode of appointment, key contacts
- Support people - how can they be included
- Follow up - how it works, concerns and contacts

For accessibility and inclusion of all audiences, and successful implementation, it is essential that:

- Aligned resources are available to be delivered in a **range of formats** to suit different people and their needs, for example, letters, calls, website (searchable on Google), videos, brochures
- See co-designed recommendations 3.1

2.3 Waiting Room Video

The Waiting Room Video was based on the concept of being able to educate the 'captive audience' in a hospital waiting room, who may prefer their healthcare delivery via telehealth, and can have this option/choice promoted to them. The draft storyboards are provided as Appendix D. With further discussion and co-design, the potential for this video to be used in many other settings and contexts emerged. The details of this solution are as follows:

Context

The location of where the videos could be shown was one of the beginning principles of this idea, and evolved as the solution was prototyped. Possible video locations included:

- In waiting rooms in hospitals and GP clinics
- Part of the suite of digital resources/online hubs
- Community-specific contexts (schools, life skills programs, etc)
- Able to be sent out with telehealth appointments links (with instructions on how people can change the appointment mode if they then realise telehealth is not the option they want)

Format
The importance of including 'real people' was strongly communicated by the co-design team, as was the ability to cater these to different audiences, and feature diversity. Some key takeaways include:

- Short videos created with different communities
- Real footage of how the technology works, rather than animation

Tone
The co-designers expressed that it was crucial that the tone was friendly, and the video was engaging. The need for humour to be included in the video was reiterated and agreed upon. The key takeaways were that the video must:

- Explain telehealth as if talking to a friend
- Use humour – the tone of the videos could be similar to in-flight safety videos

Video Structure and Messages
The co-designers designed storyboards with specific messages for their communities that were themed into common problems, solutions, how telehealth works and benefits. These ideas, scenes and messages are captured below:

1. The Problem
    - Busy people are sitting in waiting rooms on their devices anyway
    - Not having access to a car or public transport
    - Challenging to get to an appointment with children
    - Stress and cost of traffic and parking
    - Not feeling safe going to the doctor
2. The Solution
    - You can choose between telehealth and in-person appointments - it's not forced on you!
    - We have different options for you to attend your appointments
    - We offer telehealth! Is it for you?
    - Why not consider telehealth?
    - Telehealth is the way to go
3. How Telehealth works
    - You're not going to be lost - we're going to help you through it
    - It's as simple as a click of a button
    - You can use any device that's available to you
    - You can do it from home or anywhere: a park, a friend's place or even a local community hub
4. The Benefits
    - You can save time and money for things you'd rather be doing
    - You can stay close to home
    - You don't have to take the day off work
    - Even if you don't have internet access, you can access telehealth in your community
    - You can access interpreters

The video storyboards are presented as Appendix D.

2.4 System Flexibility and Support

Co-design participants communicated that for the co-designed solutions to be successful, they must be underpinned by a system that enables, respects and supports a consumer's ability and right to choose how they want to receive healthcare. This was a feature across most of the co-designed solution options ideated by our co-designers. This has been incorporated into our co-designed recommendations, 3.3 System Support.

We heard that choice is very individualised, for example, some consumers may feel more comfortable attending in person when they are very unwell, whereas others may prefer telehealth. Everyone's needs are different and change dynamically. Multiple co-designed solutions addressed the overarching need for increased system flexibility and support through the following mechanisms:

Integrated referrals
Improved integrated electronic referrals for patient triage and management, that can support the health service to efficiently screen and assess patients. The ability for patients to provide and independently update their:

- Next of kin
- Interpreter and language (including any preferences for interpreter gender, culture and location)
- How people want to receive communication from the hospital (call, text, letter, email, combination)
- Appointment mode preference (in person, telehealth, telephone)

Choice and changing mode of appointments

Consumers cannot be expected to anticipate their needs in 3-6 months, in a discussion with their clinician about whether their next appointment should be offered via telehealth. We heard that in order to promote consumer choice about how their healthcare is delivered to them (in person/telehealth), they must have the ability to choose and change, even on the day of the appointment. This requires:

- Allowing consumers to change appointments from in person to telehealth and vice versa on the day of their appointment
- All clinics being enabled with telehealth technology and the space to see patients in person
- Consumers knowing that they can change their appointment, and they do have a choice
- Consumers knowing who to contact to change their appointment on the same day

Flexibility supported by the workforce

We heard that it is crucial for clinicians and administration officers to understand how to support and offer flexibility to patients. This can be done by:

- Providing contact details for relevant people and supports, enabling two-way communication
- Communicating between appointments in the way that the consumer chooses (email/phone call/letter/text)
- Talking about the next appointment, what it is expected to be about/for, and shared decision making about how it can be offered (in-person/telehealth)
- Changing appointments for patients based on their needs and preferences, as they are who we are serving

Community Hubs with Telehealth Capability

Consumers may benefit from care closer to home, but may not be able to do telehealth from their homes or workplaces due to privacy or space constraints. Our co-designers shared that supporting community hubs with telehealth equipment, so community members can dial in to their appointments from somewhere local, safe and private would be of great benefit. These community spaces should be accessible by public transport and have free parking and have private spaces where people can attend telehealth appointments.

We also heard that having people from the community that were there to support (as support people/advocates) who were able to attend appointments with community members, would be of interest to some, especially from marginalised communities.

Community hubs would support people who may not be able to do telehealth from home due to:

- Challenges with technology
- No access to devices or internet
- No privacy at home
- Needing support with family (e.g. community spaces may be able to provide a creche)
- Domestic and family violence

3 Recommendations

Recommendations have been co-designed throughout our workshops, and are categorised into education and information, telehealth assist and system support.

3.1 Education and Information Recommendations

3.1.1 Develop Metro North ‘Telehealth 101’ Digital Resources and Online Information Hub

Information and the online hub, should be developed in equal partnership with consumers and community to meet their diverse needs and information preferences. Building on solution 2.2, information for consumers should be written by/with consumers. Design, accessibility and user experience of the online hub should be designed with and by consumers, as well as an alternative method for resource access for communities who are not able to access digital resources.

3.1.2 Information delivered in digital and non-digital mediums, in partnership with community organisations

Existing and developed information should be delivered in a range of formats to suit the needs of the individuals, and through a range of communication pathways. We heard different communities have different information preferences and sources, and an investment should be made in understanding these for different demographic groups, and delivering across different mediums. It is important to acknowledge the preferred and trusted ways that different consumers receive information and deliver information to where they already are e.g., community organisations, peer networks, primary health care, education institutions.

3.1.3 User-centred design, plain and easy English, aphasia-friendly, translated resources

All consumer-facing information and resources should be designed using user-centred design principles, be in plain and easy English, and translated into relevant languages of (potential) service users. Information and resources need to incorporate principles of accessibility and inclusion, be aphasia-friendly, and have options for pictures to convey information rather than text.

3.1.4 Communication and marketing plan for videos and online hub

A communication and marketing plan for videos and the online hub to promote consumer awareness and benefit should be developed in partnership with diverse consumers, including priority populations (Aboriginal and Torres Strait Islander, CALD, people with disability, rural and remote) and consumers who bring perspectives from different service lines. The communication and marketing plan should incorporate other recommendations included in the report e.g., delivering information in partnership with community organisations (3.1.2).

3.1.5 Partner with the Department of Health and Clinical Excellence Queensland to produce videos

Partnering with the Department of Health and Clinical Excellence Queensland to ensure that the videos are produced to a high standard with a statewide reach is essential. Throughout the project there were no existing videos identified that met consumers telehealth information needs. Therefore, it is essential that videos are developed at a state-wide level, and they incorporate messaging, recommendations and consumer engagement completed to date (see Solution 2.3). In development and production of the videos, it is recommended that further community engagement is conducted to co-design detailed storyboards, including scripting, scenes and messaging.

3.2 Telehealth Assist Recommendations

3.2.1 Link with ‘Telehealth 101’ digital resources and waiting room video

It is essential that educational resources and personnel support are integrated to ensure coordinated care for consumers and improve experience and outcomes. Integration will enable a staged and self-directed approach for consumers to access support based on their needs. Digital resources and videos should feature the Telehealth assist model of care, for example, many storyboards designed by co-designers included the telehealth assist model of care being demonstrated in the video. Contact details for how to access the telehealth assist model of care, and features of this model should be included in the digital resources.

3.2.2 Ensure model of care supports opt-in and criteria-led referral

The model of care was designed as something that is ideal for every person to receive, however with high service demand and varying patient needs this may not be possible. Therefore, this model should accommodate both a criteria-led referral (by administration officers and clinical staff), and opt-in, where patients can self-identify that they require support. We heard that consumers need to have awareness of the Telehealth Assist model of care through integration with education resources (recommendation 3.2.1) and understand how they are able to self-identify and opt-in to this model, if they recognise that they require it.

3.2.3 Scope demand, priority services and potential users

Develop a dataset to understand what the demand for the Telehealth Assist model of care is, through better understanding the patient needs for support with their first telehealth appointment, ongoing appointments, and what they are requiring support with (e.g., technical, follow up, other) to further refine and target the model and potential users. Understand what the priority services for delivery of this model are, for example, where there has been minimal telehealth uptake, or a high volume of ‘wasted telehealth’ appointments.

3.2.4 Develop a concept brief and pilot

Using the information from recommendation 3.2.3, develop a concept brief outlining the model of care and role description for the telehealth nurse, and how the role integrates into the clinic/outpatient environment. Pilot the telehealth assist model of care within a health service clinic.

3.3 System Support Recommendations

3.3.1 Map community hubs and identify opportunities for potential future hubs

Community hubs internal and external to Metro North facilities require mapping to identify any existing ‘telehealth rooms’, and new dedicated spaces that can be equipped with telehealth devices for the community to connect into hospital appointments.

3.3.2 Address barriers to clinician uptake of telehealth

Further investment is needed to address clinician telehealth resistance and hesitancy to using telehealth, to reduce this barrier to uptake. Strategies need to be developed with clinicians and telehealth champions who can foster the growth of consumer-focussed solutions among their respective clinical areas.

3.3.3 Test and Evaluate solution checklist and use as a self-assessment for telehealth improvement

Test and evaluate the solution checklist (Appendix C) as a self-assessment tool in telehealth improvement projects, to further develop and refine.

3.3.4 Improve Queensland Health system flexibility to change appointment and communication preferences at any time

It is essential that consumers have the ability to choose how the health service (and its staff) communicates with them and how they receive their healthcare, based on their needs and preferences, and their choice to be respected. Communication methods should open two-way communication, and include text, email, phone call and postal letter (currently all mediums Metro North Health uses to communicate with patients).

The consumers communication preference should be recorded in their medical record, accessible by all who are wanting to make contact with them. The consumer should be supported with information on how to best contact the hospital to change their appointment mode (telephone/telehealth/in person). Administration workflows need to be made more efficient to enable the appointment type to be changed easily, and confirmation communicated back to the consumer in the method of their choice.

3.4.5 Improve accessibility and functionality of the QH Telehealth Portal

Improvement in the functionality of the Telehealth Portal is recommended to 1) support a diverse range of consumers to optimally participate in telehealth appointments and 2) for clinicians to deliver an increased range of clinical services. Currently the Telehealth Portal does not have a text box option. Enabling this feature would support consumers who have communication difficulties – such as language, speech/voice and hearing impairments to use writing to support online interactions and optimise their participation in telehealth appointments. Secondly, features of the Telehealth Portal are limited to screen sharing PDF documents/images, which restricts the use of other multi-media (e.g. videos) required to support the delivery of clinical care. Increasing this functionality to include word documents, video, and other features (e.g., annotation) as is available in other videoconferencing platforms (e.g., Zoom, Teams) would support an increased number of clinical services to provide care via telehealth. Given the Telehealth Portal is integrated into the Virtual Clinic, upgrading the functionality of the Telehealth Portal would enhance consumer/clinician needs while preserving existing workflows.

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Project team

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Anja Christoffersen – Co-Lead (Consumer)
Angela Chang – Project Support
Jessica Cheers – Experience Designer

Allied Health Research Team

Michelle Cottrell
Clare Burns
Amber Jones
Kelsey Pateman
Adrienne Young
Emily Arthur
Peter Button
Gary Power
Anja Christoffersen

Co-Design Team

Anton Cavalli
Amiel Nubaha
Elina Passant
Peter Button
Maureen Woodward
Melanie McKenzie
Sue Stringer
Michelle King
Evelyn The Win Pe
Sara Yousif
Khera Kim
Kate Dickson
Rebecca (Bec) Johnson
Earnest (Ernie) Fittler
Tamara Wrangham
Chloe Smith
Jaimon Kelly

Steering Group

Amber Jones
Daniel Best
Linda Cuskelly
Gary Power
Anja Christoffersen
Kelsey Pateman
Christine Petrie
Clare Burns
Kate Dickson
Mark Cruickshank
Peter Buttrum
Adrienne Young
Michelle Cottrell

Community Connectors

Rayna Cowburn
Andrew Williams
Ally Wakefield
David Yohan
Diana Padilla

Appendices

Appendix A: Metro North Telehealth Workflow Mapping

Eleven Metro North services participated in workflow mapping to understand steps and 'actors' involved in completing telehealth consultations from the point of receiving a referral to conducting an in-person and telehealth appointment. The services engaged were:

Redcliffe Hospital: Antenatal Clinic	**STARS**: Dietician First Contact Gastroenterology Clinic	**RBWH**: Genetic Health
Redcliffe Hospital: Multidisciplinary Paediatric Feeding Clinic	**TPCH:** Advanced Heart Failure Clinic	**RBWH**: Persistent Pain Clinic
Community and Oral Health: Community Based Rehabilitation Team	**RBWH**: Spinal Physiotherapy Screening Clinic	**RBWH**: Cancer Care Services (Haematology)
Community and Oral Health: Complex Chronic Disease Team	**RBWH**: Gender Services	

Workflow information was gathered from 1-3 staff members (including administration and clinical staff) involved in organising and completing telehealth appointments.

Information from across the 11 services were summarised using swim lane diagrams, and presented as an aggregated workflow, summarised into administration and clinical tasks, at the point of referral intake, before the appointment (Figure 3) and on the day of the appointment (Figure 4). NB: steps for telehealth and in person are represented on the same workflow (with specific steps for a telehealth appointment denoted in blue). The workflow processes are amalgamated for steps involved in telehealth connections to a personal device or recipient site.

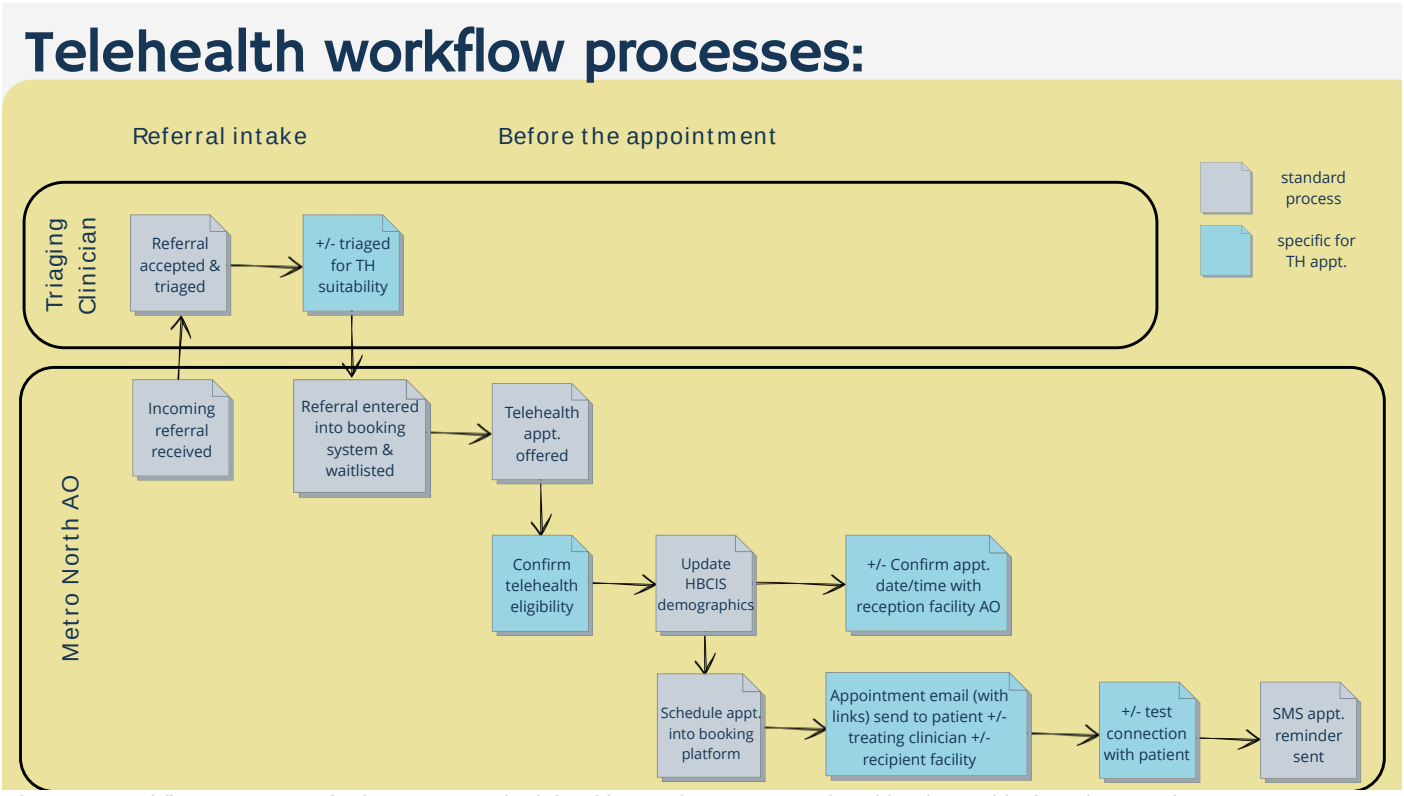


Figure 3: Workflow processes for in-person and telehealth appointments at referral intake and before the appointment

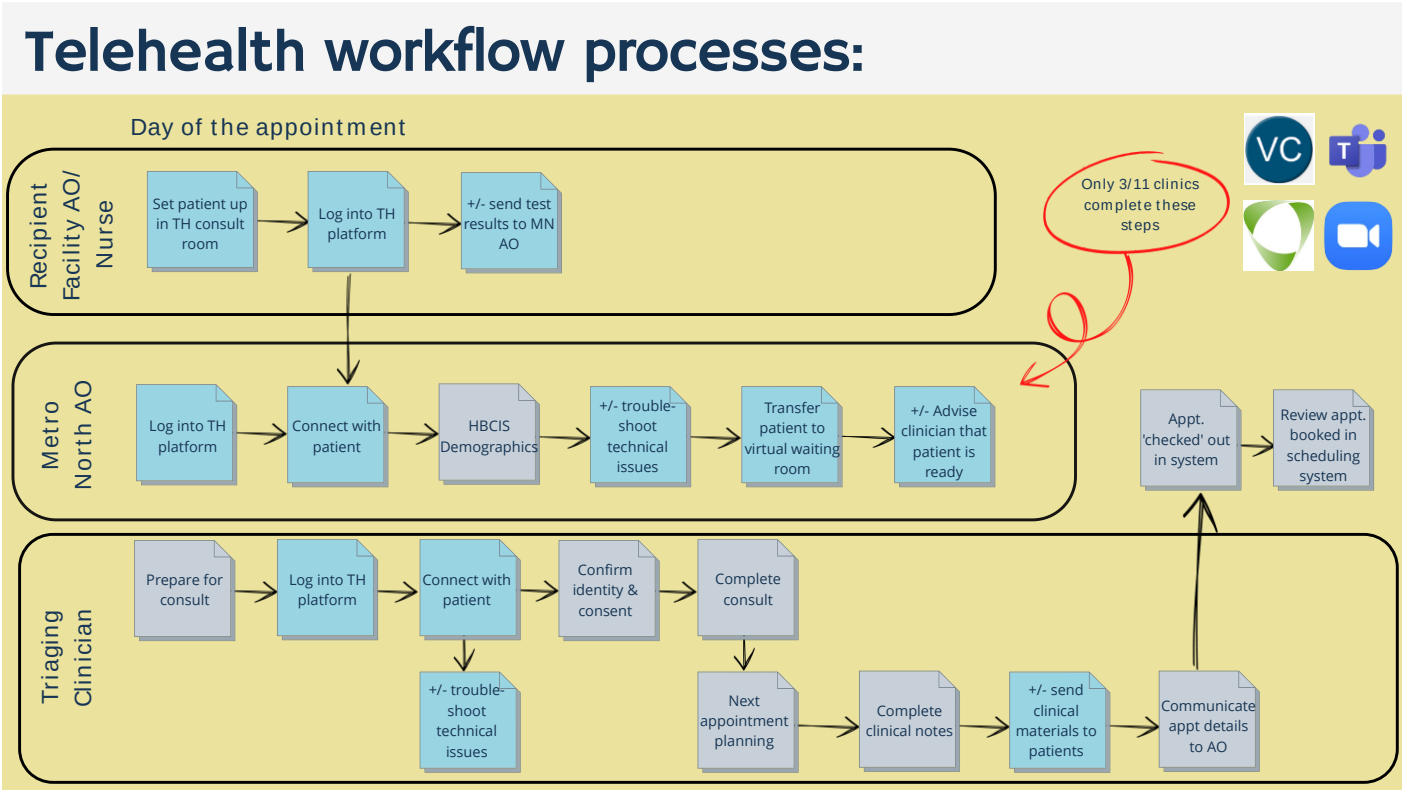


Figure 4: Workflow processes for in-person and telehealth appointments on the day of appointment

Key findings

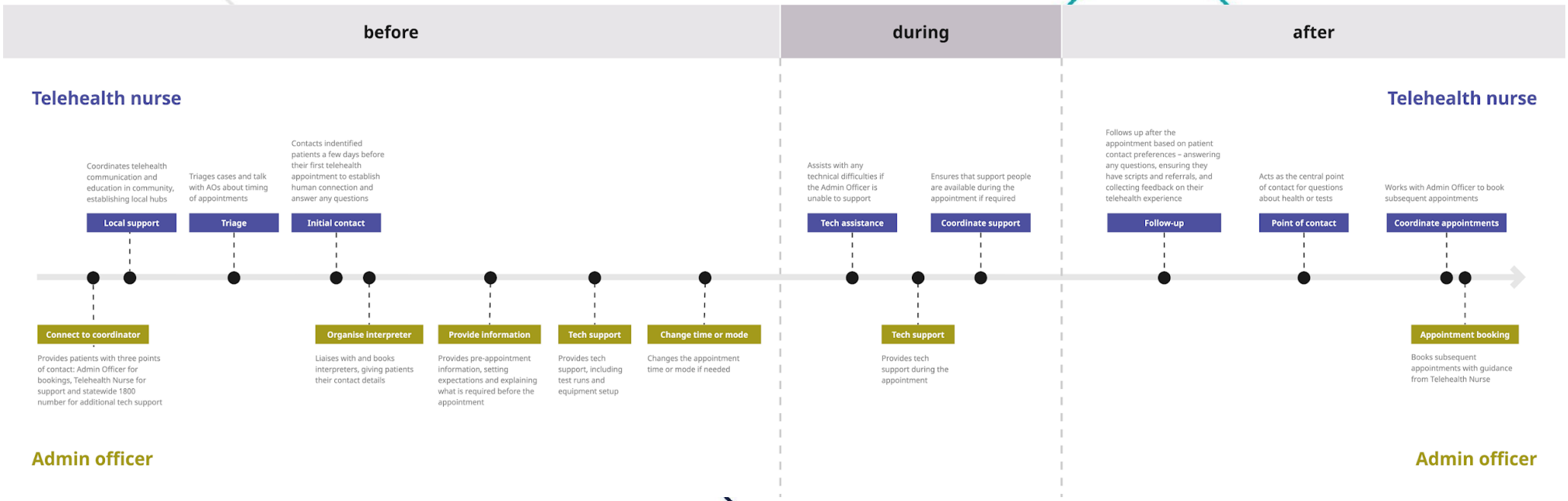
Referral intake & before the appointment

- Clinician & administration officers (in some clinics) accepts and triages the referral for TH suitability.
- Communication regarding telehealth appointment varied across services, these included a telephone call, poster letter, email, SMS.
- How and when telehealth eligibility is determined also varied by clinic.

Day of telehealth appointment

- Up to 12 additional steps required for a telehealth appointment, compared to an in-person appointment.
- Only 3 of 11 services completed the administration “check-in” using Virtual Clinic.
- Across services, 4 telehealth platforms being used: Virtual Clinic, Microsoft Teams, Zoom and NeoRehab.

Appendix B: Telehealth Assist Workflow



Appendix C: Telehealth Solution Checklist

Telehealth checklist

Co-designed with consumers and clinicians to describe the ideal telehealth experience.

- [ ] **Ask, don't assume**
  Clinicians don't make assumptions about a person's ability or inability to use telehealth
- [ ] **Understand what telehealth is**
  Consumers understand what telehealth is, and that telehealth = video
- [ ] **Aware of delivery options**
  Consumers and clinicians are aware of the different ways in which telehealth can be delivered
- [ ] **Informed of alternatives**
  Consumers are informed of their options and aware of alternatives before their appointment
- [ ] **Given a choice**
  Consumers are given a choice between in-person, phone or telehealth (video)
- [ ] **Set expectations**
  Consumers have clear expectations of what the appointment will be like
- [ ] **Provide instructions**
  Consumers are given clear instructions for how to connect to their appointment
- [ ] **Translate to spoken language**
  Appointment instructions and follow-up information is translated into the consumer's spoken language
- [ ] **Flexible communication**
  Communication is delivered in different ways to suit the needs of the individual
- [ ] **Appointment reminder**
  Consumers are reminded of their appointment beforehand
- [ ] **Pre-appointment support**
  Consumers receive communication from a support person prior to their appointment if required
- [ ] **Disclosing privacy information**
  Consumers are provided with a disclosure statement about privacy and how their information will be used
- [ ] **Escalating privacy concerns**
  Consumers are told how to escalate concerns about privacy or how information is handled
- [ ] **Flexible format**
  Consumers can change the format of their appointment if their situation or condition changes, including on the day of their appointment
- [ ] **Available technology**
  Technology availability is discussed with the consumer before their appointment
- [ ] **Points of contact**
  Consumers have direct points of contact for assistance and know who to contact, when and why
- [ ] **Trusting relationship**
  Consumers develop a trusting relationship with their treating team prior to and during their appointment
- [ ] **Interpreter access**
  Consumers have access to an interpreter if required
- [ ] **Tech support**
  Consumers have access to tech and internet support
- [ ] **Appointment support**
  Consumers have access to a support person during the appointment if required
- [ ] **Location access**
  Consumers have access to a space where they can comfortably connect to their appointment
- [ ] **Support for specific needs**
  Consumers with specific needs (for example hearing or cognitive impairments) are provided appropriate support
- [ ] **Follow-up information**
  Consumers receive information about their treatment plan after the appointment
- [ ] **Clarification**
  Consumers have the opportunity to seek clarification if anything is unclear

Appendix D: Waiting Room Video Storyboard for Production

Storyboard 1: Convenience & quality of care

1. The problem

Video: Person sits in car outside of hospital carpark behind a long line up of cars, with the sign reading "FULL"

CONVEY: STRESS AND COST OF ATTENDING APPOINTMENTS IN PERSON

Video: They enter a busy hospital waiting room, which is full of other bored and busy patients glued to phones, tablets, laptops and watching the TV monitors around the room

2. The solution

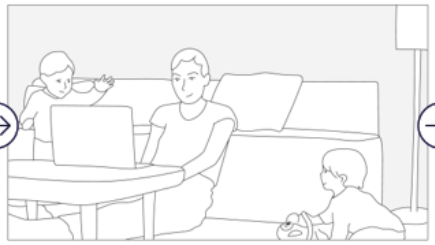
Video: Image showing options available for appointments

Voiceover: We have many different options for you to attend your appointment. You can now choose between in-person and telehealth video appointments. How would you like to attend your next appointment?

3. How it works

Video: Three shots showing telehealth being used via phone, laptop and computer

Voiceover: You can use any device that has a camera and microphone, and connected to internet



Video: Person at home with children while using telehealth

Voiceover: You can do it from anywhere that's comfortable and convenient for you: home, work or a community hub.

4. The benefits

Video: Person on a park bench using phone

Voiceover: Telehealth gives you time back in your day, so you can do the things you'd rather be doing

Storyboard 2: Support to connect & interpreters

1. The problem

Video: Pregnant mother and her children travelling on the bus to get to their appointment at the hospital

2. The solution

Video: Image showing options available for appointments

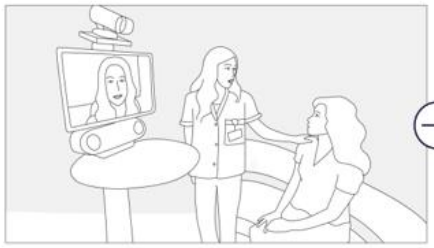
Voiceover: You don't need to spend time and money travelling to the hospital to attend your appointments – you can choose between in-person and telehealth video appointments

3. How it works

Video: Split screen of a person at home using telehealth and a doctor using telehealth

Voiceover: You can use any device that's available to you – it's as simple as a click of a button

4. The benefits



Video: Person attends a local hospital for support, and is guided through the appointment

Voiceover: You're not going to be lost – we'll support you to connect to the appointment and help you every step of the way

Video: Person connecting to their telehealth appointment from home with a support person

Voiceover: With telehealth, you can have your family, friends and support people with you during the appointment

Video: Close-up on computer screen showing telehealth appointment between a consumer, doctor and interpreter

Voiceover: Telehealth allows you to attend your appointments and access interpreters and support while staying close to home