

Telehealth Acceptance by Aboriginal & Torres Strait Islander People

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Staying Strong Project

- One of the Australian Government-funded projects which aimed to improve the health of older Australians, using NBN (+ other fit-for-purpose broadband devices).
- Implemented by integrated living with older Aboriginal and Torres Strait Islander people in 2 sites in NSW (Coffs Harbour & Armidale) and 2 in Qld (Brisbane & Toowoomba)
- **Objective:** To improve the health and wellbeing of participants by:
 - supporting older Aboriginal and Torres Strait Islanders to access **telehealth monitoring** in their home or at a hub
 - developing and implementing **cultural activities** that connect older Aboriginal and Torres Strait Islander Australians with younger people to raise cultural awareness and respect for Indigenous history and heritage

Telehealth Service Model

- Participants supplied with a tablet (iPad equivalent), a range of peripheral devices and an individualised monitoring plan (GP or RN developed) to determine peripherals, parameters, acceptable margins and frequency of monitoring.
- Vital health signs monitored (as appropriate) included temperature, blood pressure, weight, pulse, oxygen levels, blood glucose levels and/or peak flow rate
- Measured at home or at telehealth services hub and transmitted to Data Monitoring Centre; triage management by RN of out-of-margin readings
- Vital sign readings were provided to participants for their health information/education and to GPs to support diagnoses

Potential Benefits of Telehealth

- Increase access to regular health monitoring for people in rural and remote areas, or those who are house-bound
- Reduce emergency hospitalisations
- More accurate and timely diagnoses
- Increase awareness of own health conditions
- Increase independence and self-management
- Reduce need for GP home visits
- Peace of mind for older person and family

Project Evaluation

- Methodology:
 - Advisory Committee established (Prof Susan Nancarrow; Prof Tony Broe; A/Prof Kelly Shaw; Ms Sharon Wall; Ms Jennifer Darr)
 - Ethics approval (RACGP)
 - Meetings with relevant stakeholders, incl. CEO/senior staff of Aboriginal Medical Services to provide information, address concerns
 - Development of Base-line & Follow-up evaluation instruments: Personal Wellbeing Index/Attitude to Technology/Social Connectedness/ (demographic data at Baseline) for implementation by RNS
 - Yarning Circles held with participants at end of evaluation period to obtain qualitative data of their attitudes to, and experiences with, the telehealth equipment (recorded with consent).
 - One-on-one interviews with stakeholders, participants, RNs & senior integrated living staff (recorded with consent).

Evaluation Outcomes - 1

- 70 participants completed Baseline Packs & 54 completed Follow-Up Packs
- Demographics:
 - mean age 62 – range 49-79;
 - 52 females/ 18 males;
 - 22 married, 9 widowed, 8 divorced, 19 single;
 - 21 lived alone, 10 with spouse only, 38 with family, 1 co-tenant
 - 50 lived in a house, 20 in a unit or flat;
- Major Health Conditions
 - 47 high BP; 33 Type-2 diabetes; 30 high cholesterol
 - Majority ha 5 or more health conditions
 - 30% had hospital admission in past 12 months, most 1+

Evaluation Outcomes - 2

- Telehealth Equipment Readings:
 - of 27,752 valid readings, 570 were outside parameters set by GP or RN; 240 “low” alerts, 330 “high” (red) alerts;
 - RN computer dashboard displayed red alerts at top of screen each morning, RN used local knowledge & triage skills to follow-up;
 - compliance & usage assessed for 2 sites with most participants
 - significant differences between sites; higher usage & compliance at Site 2 where GP had set parameters cf RN; GP may have given project more “legitimacy” in eyes of participants or made them more “wary” of missing readings; Site 2 participants also had higher SES than Site 1, incl. professional employment in some cases

Evaluation Outcomes – Attitude to Technology

- 9 statements, 5-point scale: % (n) Strongly Agree/Agree

The Telehealth Equipment	Baseline N=67	Follow-up N=53
Improve(d) access to regular testing	91 (61)	92 (49)
Make/made it easier to do regular testing	92 (62)	92 (49)
Save(d) time in having regular testing	88 (59)	88 (47)
Will be/was useful in my regular testing	89 (60)	92 (49)
Learning to use it would be/was easy for me	71 (47)	77 (41)
My interaction with it would be/was clear & understandable	73 (48)	81 (43)
Would be/was easy for me to become skilful at using it	77 (51)	77 (41)
Would be/was easy to use	76 (50)	83 (43)
Comfortable about using it at home	89 (60)	90 (48)

Evaluation Outcomes (Cont.)

- Hospital Admissions – reduction over period of evaluation from 12 months pre-Baseline but follow-up time period varied between participants so reduction could not be accurately assessed
- Participant Satisfaction
 - 98% (n=53) enjoyed being in the project
 - 96% (n=52) wanted to continue using the equipment
 - 90% (n=48) understood better what effects their health because of using the equipment
 - 85% (n=46) felt better at Follow-up than at Baseline
 - 98% (n=53) said that “the project nurse was always happy to assist me and answer my questions”

Evaluation Outcomes – Qualitative Data

- Factors associated with engagement and up-take of telehealth:
 - being told about the project in a “safe” environment, e.g., during regular Elders’ Health Check or at AMS clinic;
 - encouragement from GP;
 - being told about it by family/friends already participating: *“everybody I know does it and they’re happy with it”* (P1)
- Barriers and enablers for acceptance and use:
 - Main barrier was time (paid work, volunteering, caring for family members): *“Some of the older women, while they have poor health, their priority is the health and wellbeing of others. Some are carers of husbands/partners, grandchildren and others”* (Staff member).

Evaluation Outcomes - Qualitative Data

- Other factors identified during Yarning Circles/interviews;
 - Male participant with diabetes had not seen Dr for over a year
 - Some participants had not had BGL checked for many years before joining the project, now do it every day. Some keep daily diary of BGL & BP – one man who had lost his heavy-vehicle driver's licence now knows how to control BGL/BP, diabetes is under control & he is hopeful of regaining his licence.
- Quality of RNs → RN now “accepted by community”; reassurance/security – as well as seeing their results, they know that “*someone else is watching and will take action if needed*”. Nurse phones if readings are not right “*you feel like someone is caring about you*”.
- Participants reported “*feeling special*”; they asked each other about their readings and taught each other to use the equipment.

Evaluation Outcomes - Qualitative Data

- Willingness of participants to learn how to manage their health; setting up routines for readings; support from wider, non-indigenous community (e.g., president of local RSL Club ensured that the Club stocked Zero Lemonade to support participant who gave up alcohol and was monitoring his BGL).
- Increased Awareness/Health Education:
 - *“I know when I have a couple of beers on Friday or Saturday, it (BP) goes up. I’ve cut back on a lot of drinking because of that. I’m a bit worried about the Monday morning (BP) test”*
 - *“You get more confident, like, if there’s a death in the family, I don’t stress over the readings because I know where it comes from”*
 - *“If I feel tired I (check BP & BGL) and say ‘It’s time to sit down’. It’s really wonderful that I’ve got this equipment”*
 - *“It’s about access and choice. I don’t have to go to the Elders’ Health Check now but I can if I feel like a yarn-up.”*

Lessons Learned

- Community engagement with Aboriginal and Torres Strait Islanders takes time: (Funding bodies please note!!)
- Older Aboriginal and Torres Strait Islanders in the project showed high level of engagement with the equipment and technology
- Remote telehealth monitoring for Indigenous communities needs to be complemented with face-to-face contact (Note: role of RNs)
- GP involvement & regular review of monitoring plans is important
- Some equipment needs bigger type face & less complexity
- Some staff need support to move from hands-on clinical approach to remote monitoring/triaging
- Strong internet connection is needed for maximum effect