

# Evaluation of a shared care model to enable regional/rural patients with head and neck cancer to access local speech pathology care

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## Introduction

- Patients treated for head and neck cancer (HNC) often experience long-term swallowing and communication impairments requiring ongoing support by a speech pathologist (SP).
  - For rural Australians, access to post-treatment SP care is often limited due to centralised services, distance, and clinician confidence.<sup>1,2</sup>
  - In 2019 a shared-care model, co-designed with consumers and clinicians, was implemented to address these barriers<sup>3</sup>, which enabled local SPs to manage suitable patients post-treatment, with tertiary support as needed.
- The primary aim was to evaluate clinical and service outcomes of the "Shared Speech Pathology Head and Neck Cancer Care" service model.**

## Shared Care Model

- Operational since 2019, shared care is a model supported by telepractice that enables rural SPs to work to full scope of practice.
- Shared care (figure 1) is supported by the specialist SP from the tertiary cancer service.
- Patients who live within four target catchments are identified as they commence cancer treatment at Townsville, the tertiary cancer centre (figure 2). At this time, the tertiary SP alerts the local SP of the patient's treatment plans. This allows time for the regional/rural site to process any upskilling required to be ready to support patients' post-discharge care.
- On treatment completion, a handover via telepractice involving the specialist SP, the patient, and their local SP will occur and the shared care model explained.
- From then, ongoing care is provided by the local SP - except for tasks unable to be completed locally (e.g., instrumental swallow studies), or if issues arise that exceed the skills of the local SP.
- The local and tertiary clinicians remain engaged in the shared care of the patient, using telepractice to support case communication

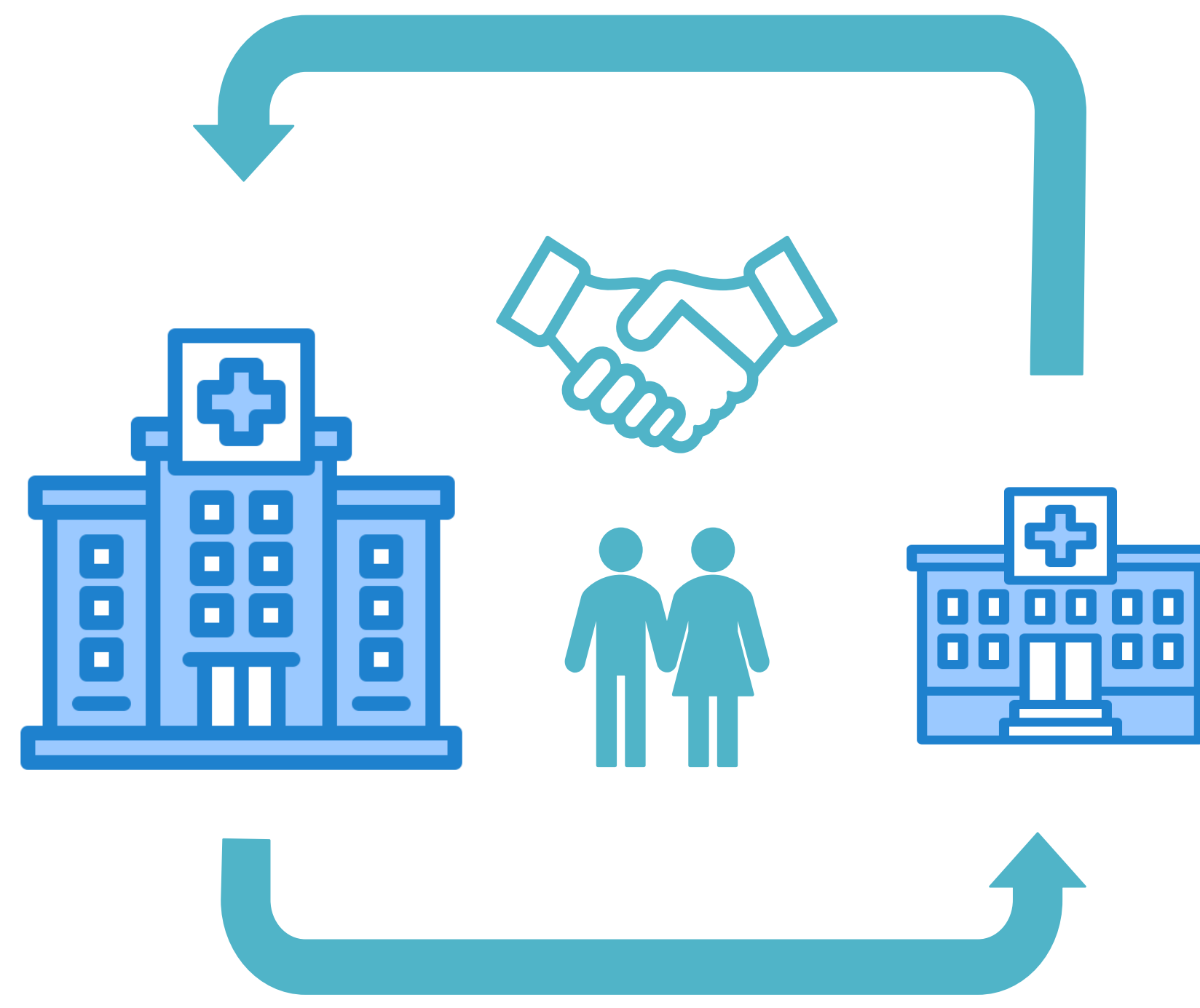


Figure 1. Shared care model

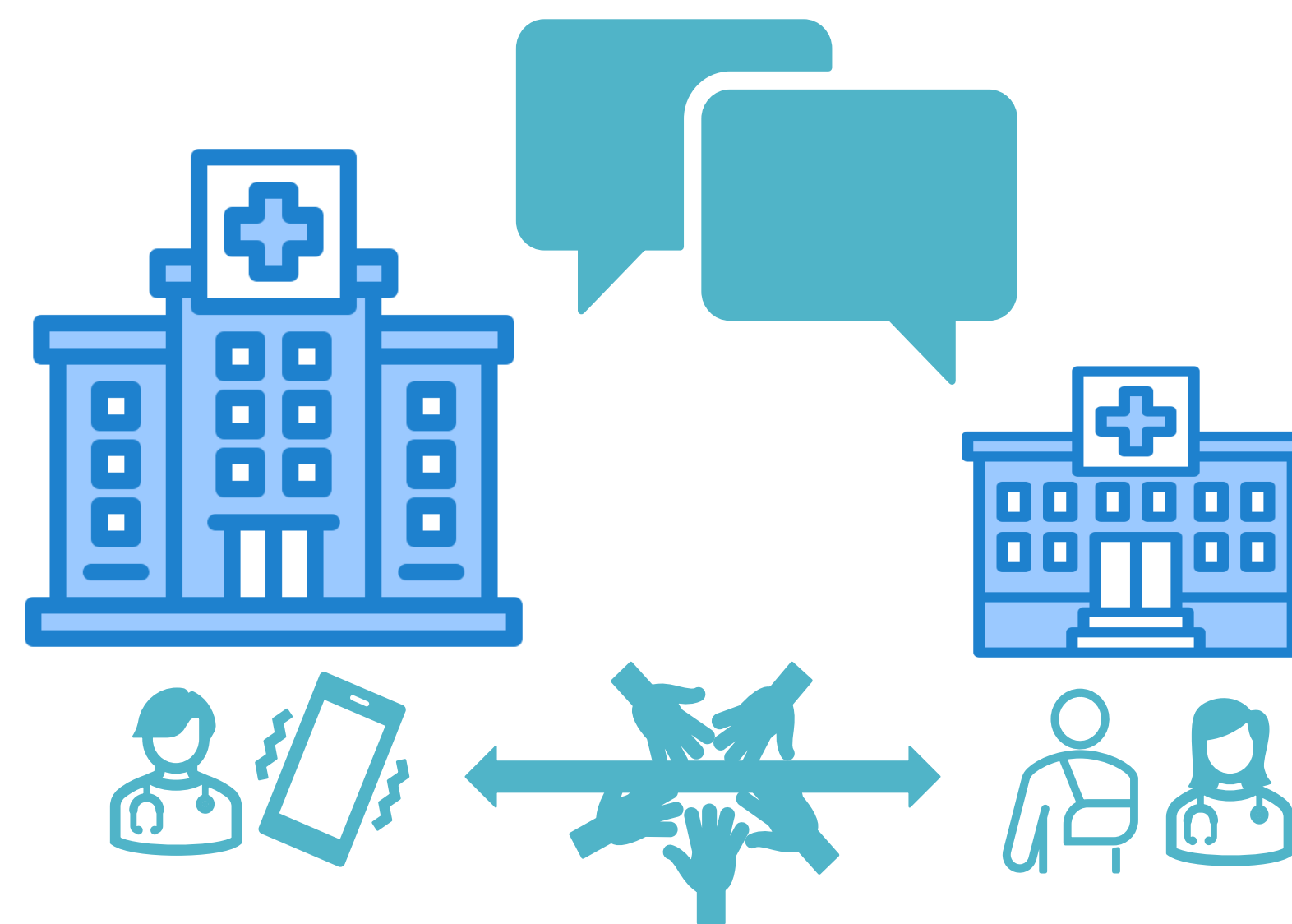


Figure 3. Communication channels within model

Cancer Centre    Outer-regional hospitals    Remote Hospital

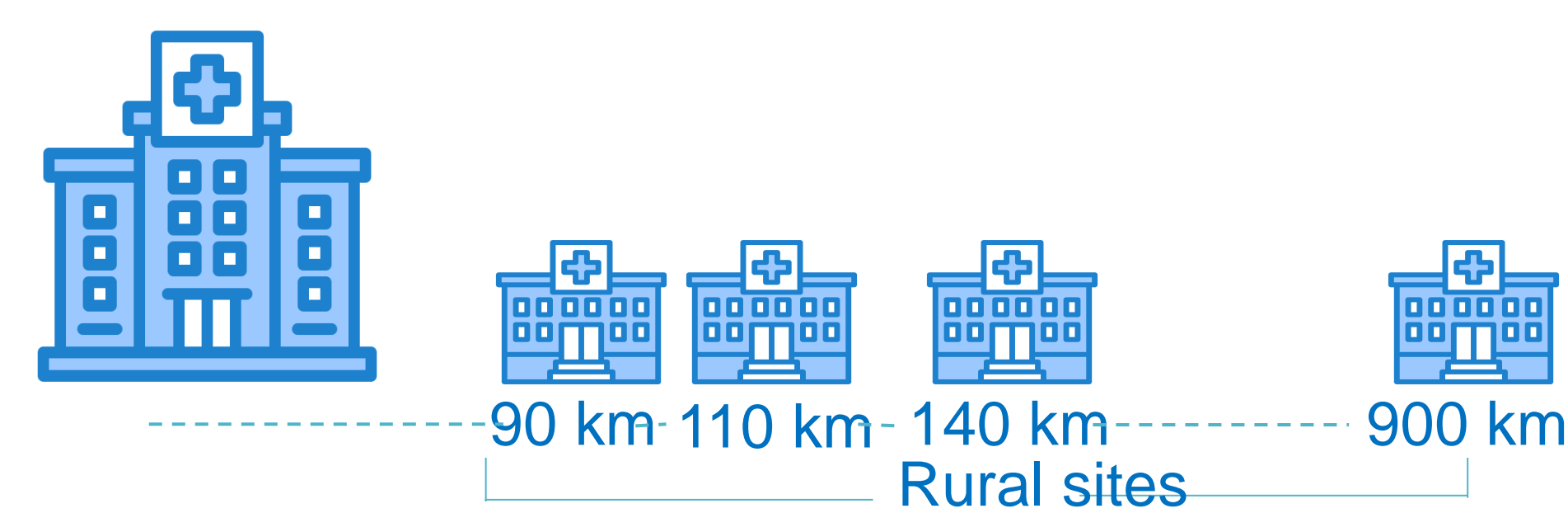
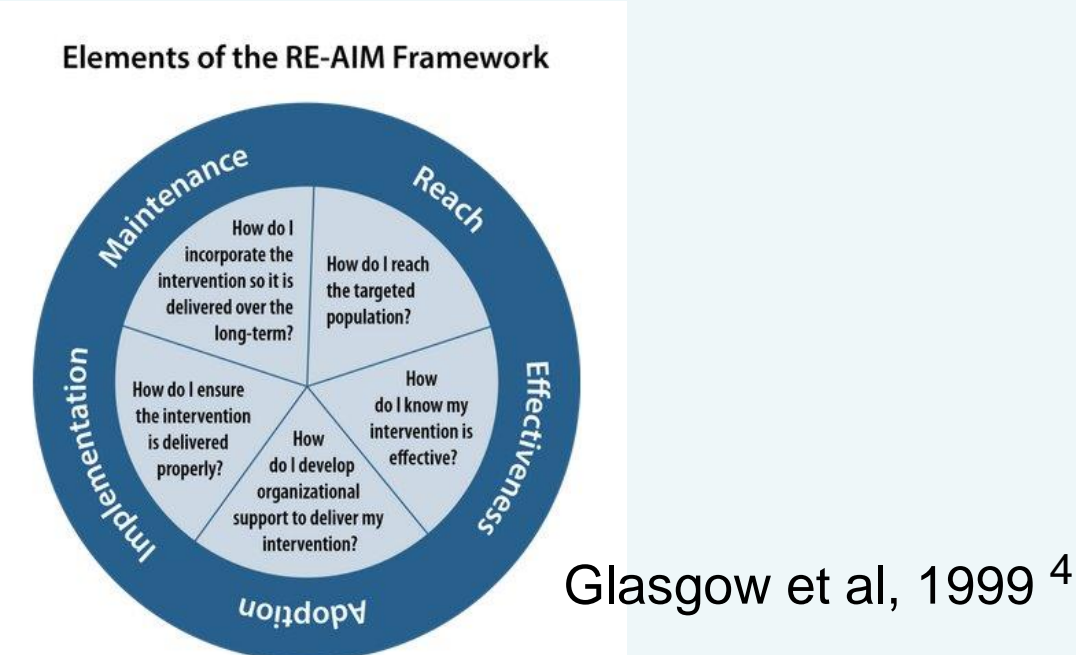


Figure 2. Sites supported by shared care

## Method

- Patients with HNC at Townsville University Hospital requiring SP management post-discharge and residing within four rural/remote catchments received the shared-care model (figure 2).
- Across 10 months, data was collected at discharge from acute services and after 3-months of local care.
- The service evaluation was completed using the REAIM framework (Reach, Effectiveness, Adoption, Implementation, and Maintenance).



- Data collected included:
  - Quantitative service activity logs, patient satisfaction, patient related costs, and EQ-5D-5L quality of life
  - Qualitative interviews and focus groups with both patients, & with clinicians in the service

## Key Points

- Post-acute speech pathology services for the care of people with head and neck cancer can be effectively managed by local clinicians.
- Fully utilising local speech pathology clinicians ensures patients can access care closer to home.
- Effective communication is the most significant factor to successful implementation of shared care.

## Conclusion

- Post-acute speech pathology services for management of people with HNC can be effectively managed by local clinicians, eliminating the need for patients to travel to metropolitan areas for all care.
- By fully utilising the expertise of local SPs and supporting them with specialist centres, this model ensures effective patient management within the patients local community.

## Results

### Reach:

- Over the 10 months, data from **23 eligible participants** was included in analysis, with demographics comparable to statewide data.
- 8 staff** were involved. Staff interviews highlighted **four themes** relating to reach: perceived benefit to First Nation's consumers, patients and their support network, suitability for all patients, supporting those from very remote communities.

### Effectiveness:

- 74%** of participants received *all* post-treatment care locally; **100%** received *some* local care.
- The average **cost saving** to patients was **AUD \$801.94**, driven by reduced travel and associated expenses.
- Statistically and clinically significant **quality of life improvements** were recorded: +12.4 points in health VAS ( $p=0.005$ ), and improvement across 4/5 EQ-5D-5L domains.
- 100%** of patients were satisfied with their care; **87%** preferred all future care to remain local.

### Adoption:

- All four rural sites implemented the model **successfully**, despite workforce variability.
- Clinician interviews highlighted 5 themes: increased confidence in skills, improved benefits to patients, improved patient engagement, professional satisfaction, and understood the health service benefits.

### Implementation:

- The model functioned as **true shared-care**, with joint decision-making and cross-site collaboration.
- Telehealth** and electronic communication pathways supported seamless coordination and flexible service delivery.
- Key issues impacting successful implementation included timeliness of referrals, local knowledge about expectation of care, and supporting care during times of leave.
- The most important factor impacting effective implementation was **communication** (figure 3).

### Maintenance:

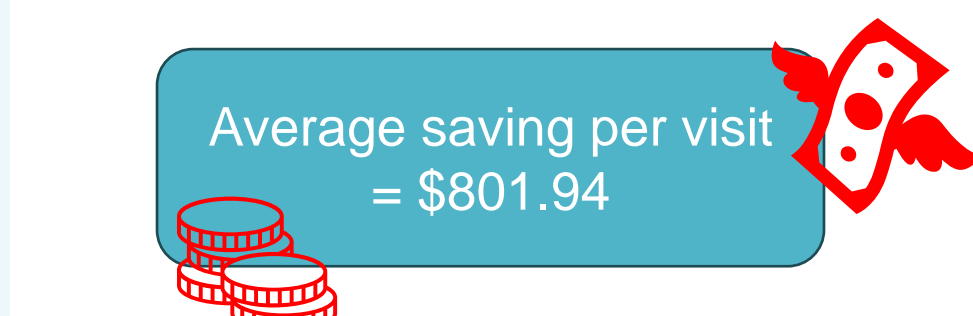
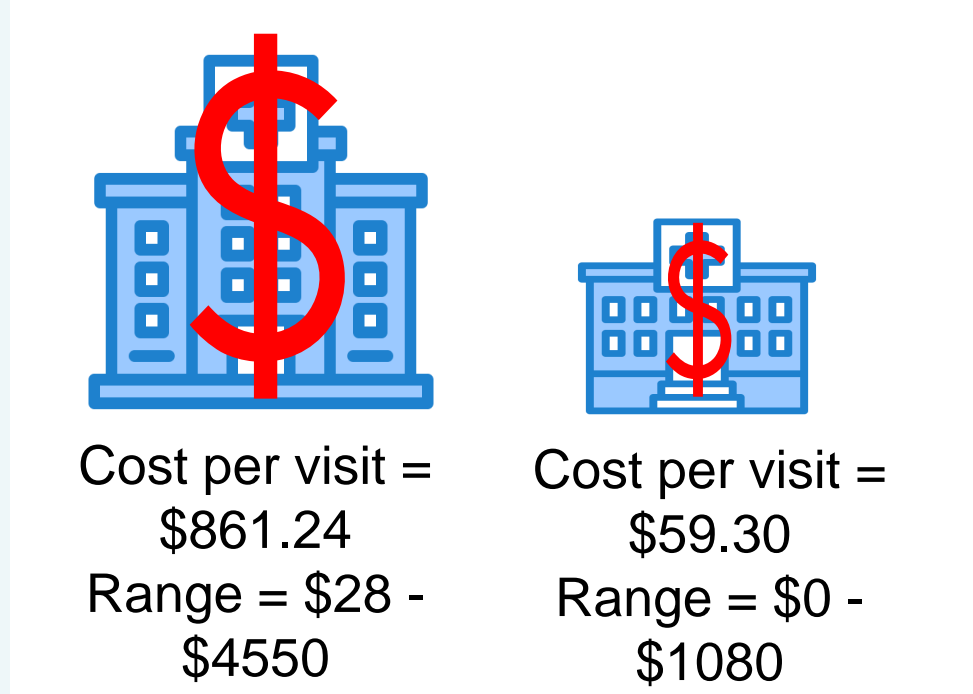
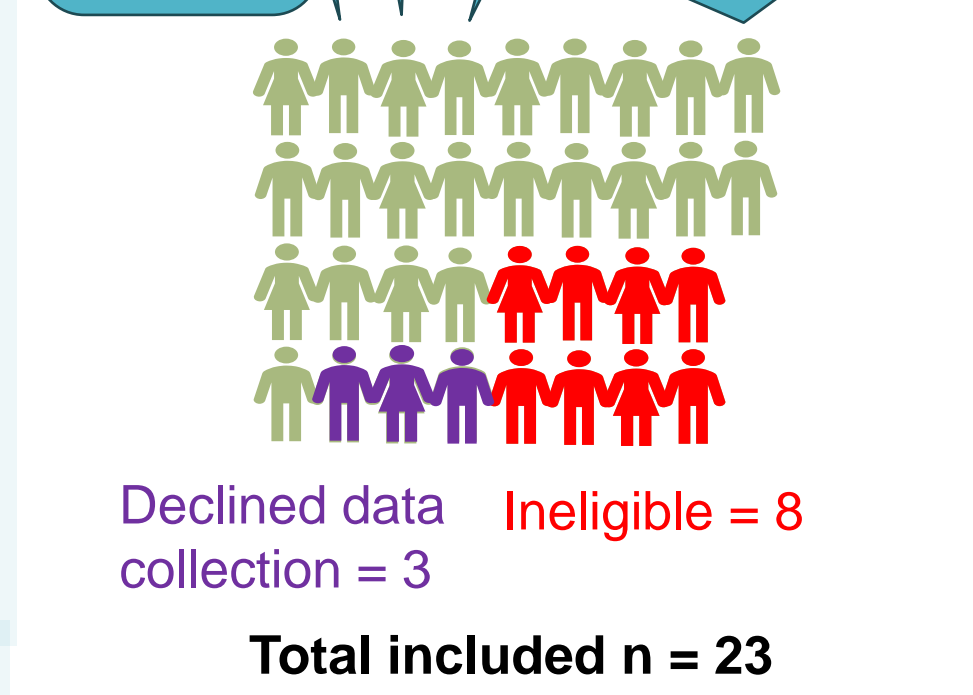
- The model has been **operational since 2019** and is now considered "business as usual."
- Key enablers included alignment with health system priorities, dedicated infrastructure, and policy support.
- Workforce turnover at rural sites remains the main challenge to continuity.

## References

- [1] Foley, J. et al (2022a). *Head & Neck*. 44(6), 1377-1392. <https://doi.org/10.1002/hed.27037>. [2] Foley, J. et al (2022b). *Australian Journal of Rural Health*. 30(2), 175-187. <https://doi.org/10.1111/ajr.12829>. [3] Foley, J. et al (2023) *International Journal of Speech Language Pathology*. 25(2), 292-305. <https://doi.org/10.1080/17549507.2022.2050300> [4] Glasgow RE, Vogt TM & Boles SM (1999). *American Journal of Public Health*. 89(9), 1322-1327. <https://doi.org/10.2105/ajph.89.9.1322>

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- Benefit to First Nation's consumers
- Patients and their support network
- Suitability for all patients
- Supporting very remote communities



"I think I didn't have a lot of confidence earlier on and I was reluctant to take on the oncology patients, but the support that's been provided has really helped me to not worry about it and to have that confidence" (SP01)

"I find it really helpful when rural clinicians e-mail me with an update ... sometimes I get questions about how the patient's going and if I'm not up to date with information, then it's challenging for me to communicate it with the wider team" (SP02)

"I'm not sure how long there's an expectation that we keep patients" (SP03)

"It's pretty straightforward. It's just standard care" (SP02)

"Knowing where to go in terms of [the resources] ... I'll put it in my orientation manual to provide a head and neck shared care service. This is what I do and these are the steps" (SP03)