

THE FRED HOLLOWES FOUNDATION INDIGENOUS AUSTRALIA PROGRAM

Telehealth Information Sheet 5: Literature review of telehealth outcomes for Aboriginal and Torres Strait Islander people

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A systematic review of literature examining reported outcomes of health services delivered by telehealth to Indigenous Australians identified a small number of relevant studies¹. It was found that the main reason for using telehealth for Indigenous health care was to address poor accessibility to health services and for targeted screening.

The findings of the review were often based on studies of variable methodological quality lacking rigour, so authors suggest using outcomes as an indicator of the potential of telehealth, rather than as an evidence-base. The review found:

- Authors of all primary studies reported beneficial health, process and economic outcomes from using telehealth to deliver

healthcare for Indigenous Australians and no adverse outcomes were reported

- Telehealth resulted in improved social and emotional wellbeing, improved clinical outcomes, improved access to specialist services, reduced travel and improved screening rates
- Indigenous people report positive perceptions of their interaction with telehealth
- Telehealth for the delivery of specialist health services appears to be either under-reported or under-utilised by Indigenous-specific health services.



The studies reported a range of outcomes:

- Social and emotional well-being benefits of receiving care in community, attendance of family during care, choice for palliative patients to die on country, greater patient empowerment due to increased health literacy and improvements in personal well-being index
- A reduction in patient travel and avoided mental distress and alienation by not having to transfer from local community to regional centre for treatment
- Greater access to specialist care, reduction in cost of providing services, process improvements such as decreased failed to attend rates and improved screening rates.

The following key advantages of telehealth to Indigenous healthcare delivery services were identified:

- Indigenous people have reported poor access to culturally appropriate health services, dislocation from cultural support systems, exposure to racism and poor communication with health care professionals negatively affect their health
- Specialised services delivered by telehealth to a patient located within an ACCHO may reduce these negative effects, especially where communication with the healthcare providers is aided by a local Aboriginal Health Practitioner during a teleconsultation
- Indigenous people are more likely to live in remote Australia. The use of telehealth has been demonstrated to increase accessibility to specialist care particularly for rural and remote populations
- A large evidence base supports use of telehealth for management of chronic diseases, such as diabetes, prevalent in the Indigenous population
- Remuneration is available for the Medicare Benefits Schedule for telehealth video consultations.

Two of the studies explored the Indigenous patient's perspective:

- A study of pre-anaesthetic clinic service in Katherine reported a 75% preference for teleconsultations over face-to-face

- A study of an oncology service that included remote supervision for administration of chemotherapy reported 100% of Indigenous patients preferred telehealth to the alternative, which may have been a protracted stay in hospital.

Analysis of patient satisfaction using real-time teleophthalmology video consultation in rural Western Australia

To address the limited evidence for patient satisfaction with teleophthalmology, a study carried out by Outback Vision recruited patients² who underwent a video consultation with Lions Outback Vision, for a follow-up telephone-based questionnaire assessing satisfaction³. Most participants were either 'Very satisfied' (69.1 per cent) or 'Satisfied' (24.5 per cent) with the service. No one reported being either 'Dissatisfied' or 'Very dissatisfied'. The study demonstrated a high level of overall satisfaction with teleophthalmological video consultation and that patients were accepting of this emerging consultation modality, regardless of age².

Audit of a teleophthalmology service in Western Australia

The Australian government introduced a Medicare reimbursement for optometry-facilitated teleophthalmology in 2015. An audit was undertaken of the experience of Lions Outback Vision's teleophthalmology service first year under this scheme. The audit aimed to provide practical insights for others looking to embed a telemedicine program as part of clinical outreach services⁴. The primary outcome was the diagnosis at the end of the teleophthalmology consultation. Secondary outcome measures included the number of teleconsultations, cataract surgery rate, remoteness area of patients referred and imaging accompanying the referral. Of those who had teleconsultations, 98.6% were from Outer Regional, Remote or Very Remote Australia. The audit found teleophthalmology to be a valuable adjunct to regional outreach ophthalmology services, providing patients with increased access to specialist care for a wide range of ophthalmic conditions, and more efficient access to surgical care.

A word on evaluation of telehealth initiatives in Australia

A conceptual framework for evaluation of mainstream telehealth implementations in Australia was produced in 2013, after a systematic review of systematic reviews on telehealth implementations and evaluations, which indicated⁵:

- Telehealth evaluation can be the examination of the effectiveness, appropriateness and cost of a telehealth service, by answering four fundamental questions:
 - 1) does the intervention work;
 - 2) for whom;
 - 3) at what cost and
 - 4) how does it compare with the alternatives?
- The research around telehealth evaluation is plenty, with some focusing on telehealth outcomes specialties, some on specific outcomes such as cost-effectiveness, and others on frameworks and guidelines to support telehealth evaluation.
- Telehealth evaluation can be complex with a great many potential inputs, outputs, outcomes and stakeholders. This may be one reason for a lack of established telehealth evaluation protocols, which in turn has hindered decision-making to implement wide scale initiatives.
- There is no standardisation of definitions, criteria, measures across the literature leading to ambiguity and confusion.
- There is no link between the telehealth evaluation criteria and health performance indicators. Therefore, the overall impact of telehealth on the healthcare system cannot be judged.
- The methodologies for conducting telehealth evaluations are not consistent.

It seems there is still some way to go in the evaluation of telehealth initiatives. The recent systematic review of literature, referred to earlier in this sheet, examining reported outcomes of health services delivered by telehealth to Indigenous Australians, identified a small number (n=14) of studies that reported using telehealth to deliver health care to Indigenous Australians⁶. Authors expect there are telehealth services not reported in scientific or grey literature not included in the review, demonstrating a lack of formal, scientific evaluation on telehealth for the provision of healthcare services to Indigenous Australians. It is suggested that quality evaluative activities providing real-time feedback are built into any future initiative in this area.

References:

- ¹ Caffrey et al 2017. "Outcomes of using telehealth for the provision of healthcare to Aboriginal and Torres Strait Islander people: a systematic review" *Australian and New Zealand Journal of Public Health* 41:1 48-53.
<https://www.ncbi.nlm.nih.gov/pubmed/27868300>
- ² https://www.outbackvision.com.au/wp-content/uploads/2017/09/host_et_al_2017-clinical_and_experimental_optometry.pdf
- ³ Aboriginal and Torres Strait Islander status not recorded
- ⁴ Bartnik SE, Copeland SP, Aicken AJ, Turner AW (2018) Optometry-facilitated teleophthalmology: an audit of the first year in Western Australia *Clinical and Experimental Optometry* DOI:10.1111/cxo.12658
<https://www.outbackvision.com.au/wp-content/uploads/2018/02/180219-optometry-facilitated-teleophthalmology.-an-audit-of-the-first-year-in-western-australia.pdf>
- ⁵ Dattakumar, Ambica. 2013. "A Unified Approach for the Evaluation of Telehealth Implementations in Australia".
<http://apo.org.au/research/unifiedimplementations-australia>
- ⁶ Caffrey et al 2017. "Outcomes of using telehealth for the provision of healthcare to Aboriginal and Torres Strait Islander people: a systematic review" *Australian and New Zealand Journal of Public Health* 41:1 48-53.
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This information sheet has been prepared by an external consultant in collaboration with the Indigenous Australia Program.

This is a live document and any corrections, additions or other feedback is most appreciated.

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