extending specialist services to patients’ homes through telehealth

Many Gippsland residents need to travel great distances to attend specialist medical appointments. Latrobe Regional Hospital expanded its telehealth program to include a broader range of medical services to improve access to specialist care and reduce the burden of travel.

## Background

Residents of the Gippsland community in regional Victoria do not have the same access to services and care as people living in metropolitan areas. This is due to vast distances between services, lack of public transport, and limited access to specialist medical services.

Those who do seek care, particularly specialist care, are faced with high medical costs, the burden of travel and having to take time off work, which can be a significant barrier in a region impacted by socioeconomic disadvantage.

Telehealth allows health professionals to assess, diagnose and treat people in remote locations using telecommunications technology. It brings specialist medical appointments to the consumer’s home or a location of convenience, reducing the need to travel and the associated costs, including lost work hours.

In 2015, Latrobe Regional Hospital (LRH) developed a model of care to enable telehealth consultations between hospital paediatricians and patient families in the Gippsland community.

LRH paediatricians provided supported consultations for patients from the hospital where they were connected to sub-specialists at major tertiary children’s hospitals in Melbourne via video call. This meant they did not have to travel the long distance to Melbourne and manage the additional expenses of accommodation, parking, tollway and meals to consult with the sub-specialist in person.

Building on this project, LRH expanded its existing model of care to deliver paediatric, endocrinology, chronic heart failure and oncology telehealth consultations to patients in their homes, with the goal of improving access to specialist care for residents in the remote areas of the Gippsland region.

Expansion of a telemedicine model into the patient’s home

**Lead** Latrobe Regional Hospital

**Partner** Gippsland Health Alliance

**Duration** December 2016 – December 2017

**Key outcomes**

* Improved access to specialist outpatient clinics by enabling patients to have telehealth consultations from their home or local medical centre
* Saved patients and carers an average of 254km of travel and $168 in costs per episode of care
* Decreased the number of non-attended outpatient appointments in the endocrinology clinic
* Received high satisfaction ratings and positive feedback from patients, carers and clinicians

## Key activity

LRH developed a model of care to enable specialist telehealth consultations for patients living more than 15km away from the hospital. As part of this, LRH visited the Royal Children’s Hospital and Barwon Health to learn from the successful telehealth models they had in place. Consumers and the Gippsland Primary Health Network were also consulted during the model’s development.

LRH formed partnerships with rural and remote medical practices to give patients the option of conducting their consultation via video call from home, their local general practice (GP) clinic, an Aboriginal medical centre or a community health service.

Endocrinology and chronic heart failure clinics were targeted to trial the model because they were clinically suited to deliver care via telehealth and because they had high levels of non-attended appointments. By making it easier for patients to access consultations via telehealth, LRH aimed to decrease the number of non-attended appointments at these clinics, thereby improving their efficiency.

The project included the next phase of the 2015 paediatric telehealth program, enabling patients to consult with Melbourne sub-specialists in their home, not just from the hospital. The project was later expanded to include outpatient oncology clinics as well.

The telehealth service was promoted to clinicians via a quarterly newsletter distributed broadly to medical practices in Gippsland. The health service also presented at a regional forum organised by the Latrobe Community Health Service.

Patient and carer resources were developed for consumers, including a webpage with a short animation outlining the benefits of telehealth and how patients could access the new service.

‘Not having to drive all the way to the Latrobe Valley is a huge help. I’m a dairy farmer, so time away means missed income. The convenience of having my specialist appointment locally is a real bonus.’

**– Patient**

## Outcomes

Figure 1. Location of telehealth consultation

* Over 12 months, LRH conducted 138 telehealth consultations, including 135 for outpatient clinics. The majority of consultations occurred from the patient’s home, in paediatric consulting rooms at LRH, or at a GP clinic (see Figure 1).
* The telehealth program saved a total of 35,050km in travel distance and $23,133 in travel costs. This represented an average saving of 254km and $168 per episode of care.
* Of those who responded to a post-project survey, 92 per cent of patients and 100 per cent of carers said they were satisfied or highly satisfied with the telehealth service offered.
* In the endocrinology clinic, the ‘did not attend’ rate fell from 16 per cent to below 3 per cent, exceeding the project’s target.
* By the end of the project, 19 medical practices were providing supported telehealth consultations in partnership with LRH, with many delivering the service on a regular basis. This meant 46 per cent of all Gippsland GP clinics and bush nursing centres were actively engaged or had shown support for the telehealth service.
* Although the response rate to the post-project clinician survey was low with only five respondents, it suggested the telehealth model:
	+ strengthened collaboration and enabled a ‘team approach’ to patient care, including improvements in transmission of information, treatment plan facilitation, and continuity and coordination of care
	+ provided opportunities for knowledge share and professional development as the health professional supporting the consultation could learn from the treating specialist.

‘In terms of patient care from a practitioner perspective, it’s invaluable being in the same room while the tertiary specialist provides advice.’

**– LRH clinician**

## Key learnings

* **Strong and early stakeholder engagement is critical for scoping a productive project –** While the endocrinology clinic adapted quickly to the new telehealth model, change was more gradual in the chronic heart failure clinic. Low uptake of the telehealth service in this speciality area suggests the patient cohort was not understood well, and that more stakeholder consultation was needed in the early scoping and planning stages of the project to produce a productive outcome.
* **Medical practices may already be telehealth-ready –** LRH had budgeted for the purchase of iPads to support medical centres in delivering the telehealth model but this proved unnecessary as participating sites were more familiar with, and better equipped for, telehealth than LRH had anticipated. It is important to be aware, however, that some medical centres may be uneasy about lifting their firewalls to accommodate external technology.
* **The telehealth model needs to be flexible to account for technical difficulties –** Network outages, poor reception and limited data coverage posed risks to successful telehealth consultations. When patients booked their appointment, LRH would discuss the availability of broadband reception in the planned consultation location and send links to data speed tests to check service requirements. Patients were also given options, such as having the consultation at their local GP clinic or travelling to a network tower and conducting the consultation from their car.
* **Working closely with the information and communications technology (ICT) team helps enable smooth service delivery –** LRH identified that coordinating appointments could be a challenge as the telehealth facilitator needed to ensure both parties had successfully joined the call without necessarily being in the consulting room. To prevent potential technological delays that could negatively impact the patient experience, LRH worked closely with the regional network provider, Gippsland Health Alliance, and a dedicated LRH ICT team to establish a console that allowed the facilitator to easily see if both parties had connected and if they had video and audio capability.

