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# Tele-Cardiac investigations for early diagnosis in rural Queensland

Initiative Type

Service Improvement

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Deliver

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## Summary

The Tele-Cardiac Investigations (T-CI) program involved cardiology staff, from the Royal Brisbane and Women's Hospital, conducting 'live' HM and EST at rural facilities, via telehealth, to support

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local clinicians. A retrospective chart review was conducted prior to and prospective data were collected following implementation of the T-CI program over a 12-month period. The RBWH focussed on listening to rural colleagues to understand their unique problem and produce a custom solution for their facility. In addition to closing the urban-rural disparity in accessing diagnostic investigations, this approach also significantly increased uptake and access for Aboriginal and Torres Strait Islander (ATSI) populations.

#### Key dates

Feb 2017

#### Implementation sites

Mornington Island, Normanton, Doomadgee, Camooweal, Mount Isa, Cloncurry, Julia Creek, Boulia, Windorah, Longreach, Winton, Barcaldine, Blackall, Alpha, Proserpine, Rockhampton, Gladstone, Emerald, Kilcoy

#### Partnerships

Queensland Rural Health facilities

## Key Contacts

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## **Aim**

Monitoring (HM) and Exercise Stress Testing (EST), via telehealth, could improve access, reduce costs for all patients as well as closing the gap for Indigenous populations.

## **Benefits**

The provision of specialist support at the time of the investigation enables the local treating team to make rapid, informed decisions about the next step in the treatment of rural patients. Patients can now access tests and rapid reporting for Cardiac Investigations closer to home, thereby reducing patient, carer, and family members' travel time; long travel distances, expenses and time away from work.

## **Background**

Cardiovascular disease (CVD) remains the number one cause of death, with associated morbidity, disability and poor quality of life, resulting in high health care costs. Globally, rural populations are affected by this burden on a greater scale than their urban counterparts. There are numerous contributing factors to this inequality, with rural populations having higher rates of CVD risk factors including smoking, excessive drinking, hypertension, obesity and physical inactivity. Harsher environmental conditions, social isolation, difficulty sourcing fresh food and lower levels of education, income and employment also contribute. Driving this issue further is the lack of access that rural populations have to affordable health services, including diagnostic services. Rural areas have difficulty attracting and retaining health professionals, leading to a chronic shortage of physicians, dentists, pharmacists, and non-physician providers. Due to the scarcity of healthcare specialists and resources in rural areas, rural Australians must either seek healthcare in regional or metropolitan cities, travelling large distances resulting in social dislocation, or forego treatment.

## **Solutions Implemented**

Implementing T-CI is a solution for rural areas to significantly improve health care delivery, eliminate barriers to accessing healthcare and leads to cost-savings, especially in areas where patients travel for longer distances to have cardiac investigations conducted.

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## Evaluation and Results

Implementation of the T-CI model resulted in a significant reduction in waiting and reporting times by 14.8 days ( $p < 0.01$ ) and 35.4 days ( $p < 0.01$ ), respectively. This was also associated with a significant increase in ATSI uptake and access from 63 (12.2%) patients to 127 (17.3%) ( $p < 0.01$ ). Utilising T-CI for HM resulted in cost-savings of \$393.33/patient (total saving of \$158,905) and round-trip travel reduction of 502.32 km/patient with 91% of patients not having to travel away from their local health facility.

## Lessons Learnt

The results of this solution are due to the dedicated rural health professionals that are driven to provide the highest quality service provision to their patients, and who display a willingness to adapt to new service delivery models to enable this care.

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