Crook in the Bush:  
Why broadband matters to health outcomes


This presentation and Flying Doctor research publications can be accessed at www.flyingdoctor.org.au/what-we-do/research/
Peace of mind in your pocket

FDA-Cleared
Kardia is the most clinically-validated mobile EKG available.

EKG in 30-Seconds
Smaller than a credit card, Kardia allows you to capture a medical-grade EKG in just 30-seconds from anywhere, anytime.

Track and Share
Kardia's app-based service enables you to proactively care for the health of your heart. Now you can capture reliable heart activity data and relay it to your doctor to inform your diagnosis and treatment plan.

More Than EKGs
Kardia allows you to easily track palpitations, shortness of breath, dietary habits, sleep and exercise patterns.

Expert EKG Analysis and More
Kardia offers instant EKG analysis (using FDA-cleared machine learning algorithms), and consultations with board-certified cardiologists, so it's easy to know whether heart rhythm is normal or in atrial fibrillation.

1 Based on the number of published clinical studies using Kardia Mobile compared to other smartphone-based EKG devices.
Cardiovascular disparity

Heart Foundation evidence is that average death rates from coronary heart disease in men living in remote areas is 1.3 times higher than in city areas, and 1.2 times higher for women.

A South Australian study of 29,623 episodes of myocardial infarction over a decade were assessed showing 30 day mortality was around a quarter higher in rural SA (705/5,630 [12.52%] compared to metropolitan SA (2,140/23,993 [8.92%]).

Cardiologist-supported remote risk stratification, management and facilitated access to tertiary hospital-based early invasive management are associated with an improvement in 30-day mortality for patients who initially present to rural hospitals diagnosed with myocardial infarction.

The interventions closed the gap in mortality between rural and metropolitan patients in South Australia.

Health disparity between city and bush

Health outcome disparity

• Death rates in remote and outer regional areas are **35% higher** than in metropolitan areas.
• Life expectancy for remote and outer regional residents is **2.2 years less** than for metropolitan residents.
• Life expectancy of Indigenous children is **10 years lower** than for non-Indigenous children.
• Indigenous Australians are **3.3 times** more likely to have diabetes than non-Indigenous Australians, and are **5 times** more likely to die from endocrine conditions.

Health access disparity

• Outer regional and remote Australians see doctors at **half** the rate of metropolitan Australians.
• Outer regional and remote Australians see medical specialists at a **third** of the rate of metropolitan Australians.
• Outer regional and remote Australians access mental health care at one **fifth** the rate of metropolitan Australians.
Primary health disparity

Frequency of reason for RFDS telehealth consultation
Accident and injury disparity

CHILD DEATH BY INJURY

- 36% More children in Australia die from injuries (36%), than from cancer (19%) and diseases of the nervous system (11%) combined.

4x MORE LIKELY TO DIE IN A CAR ACCIDENT

Road death rates for Australians living in remote and very remote Australia are four times higher than for major city residents.

9x WORKPLACE INJURY FATALITY RATE

The injury fatality rate for farm workers is nine times higher than any other industry.
Aboriginal and Torres Strait Islander health

Aeromedical retrievals of Indigenous Australians by ICD-10 Diagnosis chapter, July 2013-June 2015

Injury, Circulatory, Respiratory.
Aboriginal and Torres Strait Islander health

Indigenous patients who underwent an aeromedical retrieval for diseases of the respiratory system, July 2013–December 2015
# 2014/15 patient activity (across 7 million square km service footprint)

<table>
<thead>
<tr>
<th>Category</th>
<th>Daily average</th>
<th>Annually</th>
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</thead>
<tbody>
<tr>
<td>Total patient contacts</td>
<td>800</td>
<td>292,174</td>
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<tr>
<td>Patient transports</td>
<td>177</td>
<td>64,676</td>
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<tr>
<td>Primary health care clinics</td>
<td>42</td>
<td>15,232</td>
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<tr>
<td>Telehealth consultations</td>
<td>254</td>
<td>92,776</td>
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<tr>
<td>Dental episodes of care</td>
<td>27</td>
<td>9,845</td>
</tr>
</tbody>
</table>

## Primary air evacuation
- **Inter-hospital air transport**
- **Non-emergency patient road transport**
- **Primary health care clinics**
- **GP/Nurse telehealth**
- **Mental health**
- **Dentistry**
- **Health promotion and wellbeing**
- **Research and Policy**

### 66 aircraft
- 23 aero-medical bases
- 91 non-emergency road transport vehicles
- 13 road transport bases
- 3 mobile dentistry vehicles
- 1 mobile eye care vehicle
- 1,225 staff – (Health, Aviation, Fundraising, Administration)
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