



@SimbaniR

Collaboration in Action: Can community Wi-fi help to Close the Gap in remote Aboriginal health?

Marianne St Clair
Research Director

David Murtagh
Research Director

Simbani Research





Acknowledgement of Country



Photo thanks to Broadband for the Bush
(B4BA) and Ali Mills



What is a successful collaboration:

- Achieve a common goal or
Solve a problem.

Participants work together to achieve something they cannot do as individuals.





Theory of collaboration – components include:

- Common goal identified
- Stakeholders – the right stakeholders!
- Communication
- Leadership
- Power distribution
- Relationship building
- Resources
- Shared learning
- Networking
- Nurturing
- Time
- Training
- Trust

Collaboration is resource intensive!

Collaboration theory underpins this work.



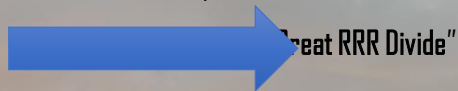
Overall aim: Reduce the disparity of health service delivery between Urban and Rural, Regional and Remote (RRR) - The Great RRR Divide

Rural, Regional and Remote (RRR) context:

500k people live in MMM (Modified Monash Model) Regions 6 & 7

Disproportionate access to services including health services (National Rural Health Alliance, 2016)

Poorer health outcomes



Great RRR Divide"

Challenges:

- Remoteness
- Low population density
- Unreliable telecommunications and power (typically local generators)
- Poor roads – can be isolated for months
- Dust, high temperatures and humidity.
- Severe weather events
- Limited access to health services

Many remote people still have issues with access to reliable, adequate and affordable internet and equitable access to health services





CRCNA Telehealth Project: Develop a simple, more robust and affordable telehealth system (2019 - 2023) – Collaboration:

- Simbani (Lead)
- B4BA
- Emerge IT Solutions (Katherine/Darwin)
- Laynhapuy Homelands

- Puntukurnu Aboriginal Medical Service (PAMS, Pilbara, WA)
- SkyMesh
- Synapse Medical
- NBN Co
- Asia Pacific College of Business & Law (Darius Pfitzner)
- Biz365 (ICT Provider for PAMS)
- Isolated Children's and Parent's Association (ICPA).
- VisionFlex

Unexpected outcomes

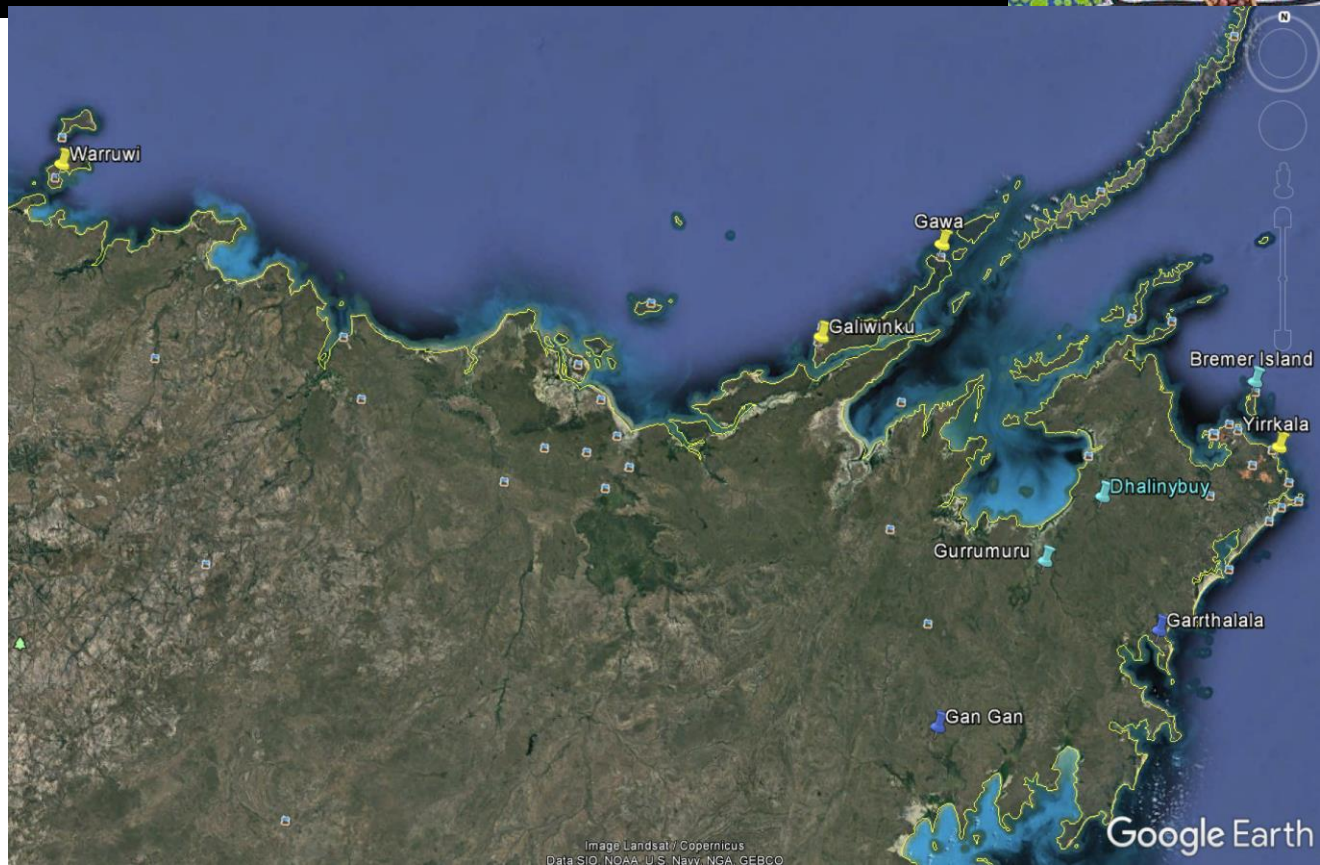
Telehealth for the Bush
Community Wi-Fi for Gawa
The need for Patient End support:
Telehealth Technicians



NBN Visit 2018

NBN Videoconferencing trouble shooting guide

<https://www.nbnco.com.au/content/dam/nbn/documents/support/satellite/nbn-sky-muster-troubleshooting-guide.pdf>





Testing NBN Sky Muster Plus 2019-2020 wet season

Clear to light weather typically

29 ↓ (varied 28-45 ↓)
9 ↑ (typically 9.8 ↑)

Ping fairly consistent 556 - 570 ms

SHARE Result ID **8956159592** RESULTS SETTINGS

PING ms	DOWNLOAD Mbps	UPLOAD Mbps
557	48.46	9.84

GO

- Connections Multi
- 'Yes' Optus Sydney [Change Server](#)
- IPSTAR 122.129.138.90

RATE YOUR PROVIDER

IPSTAR

★ ★ ★ ★ ★



Overall aim: Simple robust easy to use TVS

- SkyMuster Plus Satellite internet service adequate for video-conferencing and telehealth
- Zoom most suitable video-conferencing platform (incl remote end camera control)
- Jabra microphone/speaker (\$300)
- Video camera PTZ Pro 2 (\$1,100)
- Clinicians can more accurately assess patients using videoconferencing rather than phone.
- Many RRR people not getting health services they need.
- Some urban people not getting the services they need.

Barriers to telehealth

- Lack of access to adequate an affordable internet
- Lack of patient end support
- Clinicians (especially GPs) reluctant to use telehealth including via videoconferencing
- Lack of collaboration between service providers (silo approach)



Evolution of Telehealth for the Bush (TH4B)

- Synapse (Medicare billing company) provided support, Nurse Practitioners and specialists for some of our remote people as a trial.
- It worked!

Examples:

- Orthopedic surgery with only 2 trips (7 hours to town, one for MRI, one for operation as public patient)
- A number of patients accessing a range of mental health services from RRR and locations.



TH4B Trial

Locations:

- Regional & remote NT, WA, NSW & Qld
- Pilbara – Puntukurnu Aboriginal Medical Service
- focusing on child development assessment and treatment

Outcomes:

Patients accessing services via telehealth
Linking back into public system, eg for operations and diagnostic tests



Nurse Practitioners:

- Patient-centred care similar to GP role
- Skilled and qualified to diagnose, prescribe & treat patients
- Can see patients via telehealth without initial in-person requirement
- Can access Medicare rebates
- Can refer patients to specialists, diagnostic tests, allied health professionals
- Synapse mobile app facilitates billing and referral pathways





Patient contacts TH4B

Consult with NP

Treats, referrals - diagnostic tests and/or
specialist (using Synapse App)

Patient has telehealth consult with Specialist

Further action as
required



TH4B Expanded network – Range of 40 health services now available, including:

Allergist, Clinical Immunologist Anesthetist, Cardiologist, Cardio-thoracic Surgeon, Colorectal Surgeon, Dermatologist, Emergency Physician Endocrinologist, Exercise Physiologist, Gastroenterologist and Hepatologist, General Physician, General Practitioner, General Surgeon, Geriatrician, Hematologist, Infectious Diseases Physician, Intensive Care Medicine, Midwife, Nurse Practitioner Neonatal/Perinatal Medicine, Pediatrician, Nephrologist, Renal Physician, Neurologist, Obstetrician and Gynecologist, Occupational Therapist, Oncologist, Orthopedic Surgeon, Pediatric Surgeon Pediatrician/Pediatric, Neurologist Pain Medicine, Palliative Medicine, Pathologist, Psychiatrist, Physiotherapist, Radiation Oncologist, Rehabilitation Physician, Respiratory and Sleep Physician, Rheumatologist, Speech Therapist, Urologist, Vascular Surgeon and expanding



Lessons learned: High level of collaboration and administration.

Issues identified:

- Access to adequate internet
- Data transfer between diagnostic services, referring clinicians and patients
- Primary care data not uploaded to My Health Record (MHR)
- Diagnostic services refusing to upload data to MHR
- Diagnostic services sending results to referring clinician other than by post (causing extensive delays)
- No funded patient-end support
- Lack of patient data interoperability
- Collaboration and administration required (not funded)
- Changes to MBS



New CRCNA Telehealth Project: Development of innovative primary health service managed by Telehealth Technicians for very remote Aboriginal Communities (2023 - 2026) -

In collaboration with the
Gawa Community

- Simbani (Lead)
- B4BA
- Synapse Medical
- Coviu
- Diamond Consulting
- VisionFlex
- SkyMesh
- Emerge IT Solutions (Katherine/Darwin)
- Australian College of Nurse Practitioners
- NBN Co
- Asia Pacific College of Business & Law (Darius Pfitzner)
- Laynhapuy Homelands
- Puntukurnu Aboriginal Medical Service (PAMS, Pilbara, WA)
- Isolated Children's and Parent's Association.



Gawa - Elcho Island

About 600 kms east of Darwin

Population 20 adults and 46 children

Gawa Christian School - community driven



Thanks Google Earth



Gawa - Elcho Island

- High turnover nursing staff
- Poor continuity of care
- Community want a more pro-active model of care



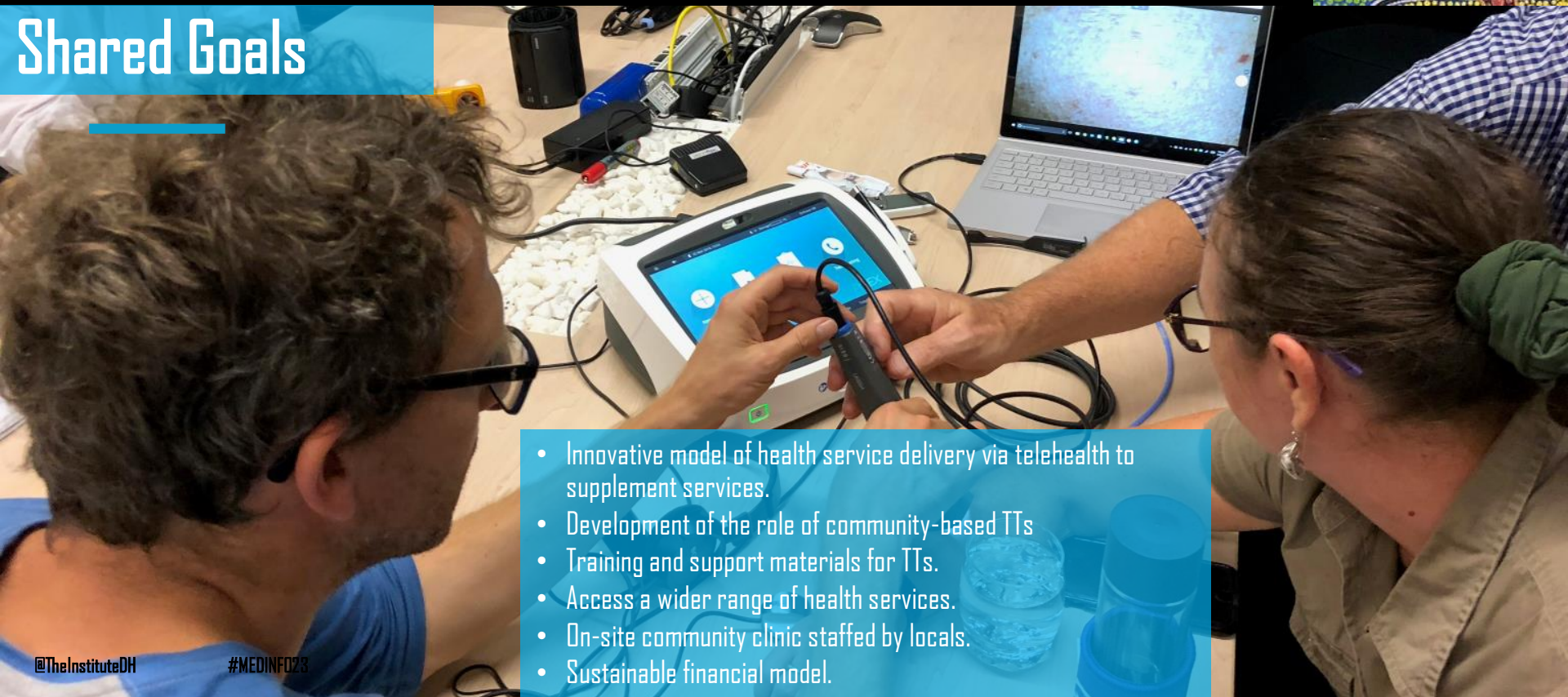
MEDINFO23

8 - 12 JULY 2023 | SYDNEY, AUSTRALIA

Assist communities to move from an emergency response service to a locally managed (within community) pro-active primary care service and on-community employment.



Shared Goals



- Innovative model of health service delivery via telehealth to supplement services.
- Development of the role of community-based TTs
- Training and support materials for TTs.
- Access a wider range of health services.
- On-site community clinic staffed by locals.
- Sustainable financial model.



Conclusions - TH4B model of service delivery.

- Can supplement existing services
- Can link into existing services
- Can expand access to a wider range of health services for RRR
- Improve health outcomes for RRR
- Potentially can address the "Great RRR Divide"
- Potentially assist in "Closing the Gap" in health for remote Aboriginal people

How can TH4B supported by TTs be implemented to "Close the Gap" for remote Aboriginal people?

*"It's not the medicine that's hard, it's the delivery that's difficult!"
Steven Faux, Physician.*



Acknowledgements:

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- Emerge IT Solutions
- Laynhapuy Homelands Aboriginal Corporation
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- Biz365
- NBN Co
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- Diamond Consulting
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Thank You!

Marianne St Clair
David Murtagh

marianne@simbani.com.au

0427 555 484

dave@simbani.com.au

0452 501 580

www.simbani.com.au

Dr Margaret and Professor
Steven Faux

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- The Gawa community
- Isolated Children's & Parents Association
- Broadband for the Bush Alliance