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TTRA TARGETED TRANSLATION RESEARCH ACCELERATOR
DIABETES + CARDIOVASCULAR DISEASE

TTRA WEBINAR SERIES:

Aboriginal and Torres Strait Islander Health Research – Implementation Science

WEDNESDAY 15 MARCH 2023 | 12:00-1:00PM AEDT

Australian Government
Department of Industry, Science and Resources

Industry Growth Centres

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Championing a sector-led approach to accelerating the growth of the medical technology, biotechnology and pharmaceutical ecosystem in Australia

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TTRA Program Team

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Associate Project Manager

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Welcome and Acknowledgement of Country

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MedTech and Pharma Growth Centre

Dr Andionne Parlade

Associate Project Manager TTRA Program

Housekeeping

For information please contact
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QUESTIONS

- **Please enter questions in the Q&A BOX** *(not the CHAT box)*
- **You can SUBMIT ANONYMOUSLY** – Just click the checkbox
- **Have the same question as someone else?**
  You can UPVOTE a question by clicking the THUMBS UP

RECORDING

- This webinar will be recorded and slides published **within 48 hours** – We'll email you when they're ready!
- View the **ON-DEMAND VIDEO** at mtpconnect.org.au/webinars
- Listen by subscribing to **THE MTPCONNECT PODCAST**
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Our Speakers

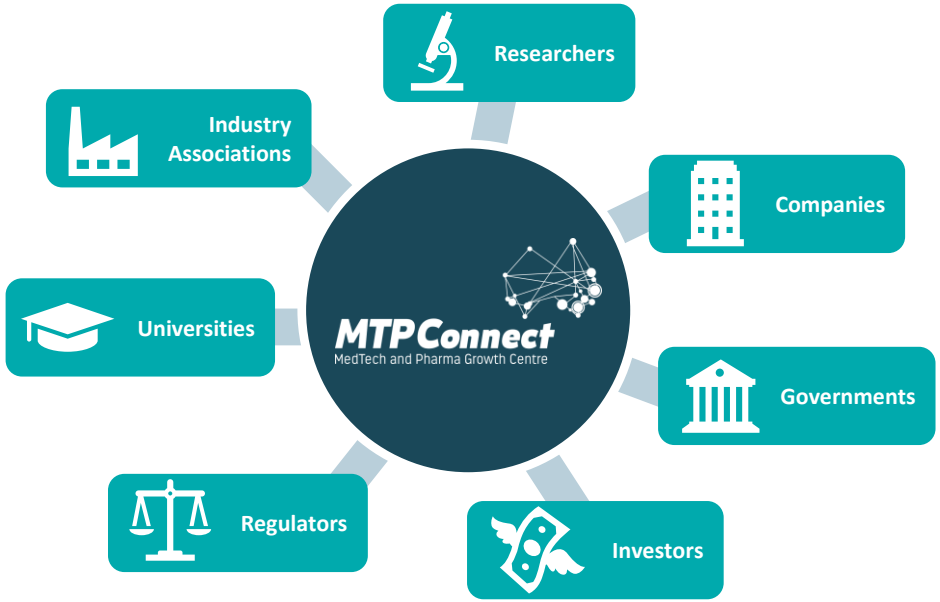
Professor Gillian Harvey

Strength Lead – Implementation at the Australian Centre for Health Services Innovation (AusHSI)

Professor Ray Mahoney

Professor of Aboriginal and Torres Strait Islander Health and Discipline Lead of Population Health & Visiting Scientist, Australian eHealth Research Centre (AEHRC), CSIRO

MTPConnect's goal is to accelerate the growth of Australia's MTP sector



1. Increasing collaboration and commercialisation across the sector
2. Improved management and workforce skills
3. Optimising the regulatory environment
4. Improved access to global supply chains and international markets

MRFF $47M TTRA Program

Pillar One

National **Research Centres** to address complications of diabetes and cardiovascular disease

ACADI
Australian Centre for Accelerating Diabetes Innovations

ASHRA
Australian Stroke and Heart Research Accelerator

Pillar Two

Discrete **Research Projects** to address sector-identified Priority Areas in diabetes and cardiovascular disease

ROUND 1: Interactions between diabetes and cardiovascular disease

ROUND 2: Unmet needs in diabetes and cardiovascular disease

ROUND 3: Indigenous-specific unmet needs in diabetes and cardiovascular disease

TTRA Partners

ANDHealth
Australia's National Digital Health Initiative

AusHSI
Australian Centre for Health Services Innovation

LOWITJA INSTITUTE

MEDICAL DEVICE PARTNERING PROGRAM

UNIQUEST

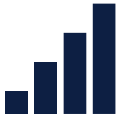
For more information

- Submit **Notice of Intent** to gain access to SmartyGrants Application Form
- Submissions will close at **16:00 AEST on 28 April 2023**

TTRA Webinar Series

Webinar 1 **29 Nov 2022**	Principles of Aboriginal and Torres Strait Islander health research and engaging meaningfully with community **Available on-demand: https://www.mtpconnect.org.au/webinars**
Webinar 2 **27 Feb 2023**	Ethics & Reciprocity in Aboriginal and Torres Strait Islander health research **Available on-demand: https://www.mtpconnect.org.au/webinars**
Webinar 3 **Mid-March 2023**	Implementation Science in the context of Aboriginal and Torres Strait Islander health research
Webinar 4 **Late-March 2023**	TBC **Registrations opening soon**

LET’S GET TO KNOW YOU…



Please answer all POLL questions and hit SUBMIT

Thanks for connecting with us.

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- Please take a moment to leave us some FEEDBACK
- Just CLICK THE SURVEY LINK that will appear when you log out. Yes, it is ANONYMOUS and QUICK!

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INFORMATION

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Principles of Implementation Science

Gill Harvey

Matthew Flinders Professor, Caring Futures Institute, Flinders University

Professor of Implementation Science, AusHSI

ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

QUT acknowledges the Turrbal and Yugara, as the First Nations owners of the lands where QUT now stands. We pay respect to their Elders, lores, customs and creation spirits. We recognise that these lands have always been places of teaching, research and learning.

QUT acknowledges the important role Aboriginal and Torres Strait Islander people play within the QUT community.

Principles of Implementation Science

- What it is
- Why we need it
- Some key concepts

Implementation Science

- Late 1990s onwards, increased policy attention on the evidence-practice gap
- Emergence of 'implementation science' from 2006 with the launch of the journal by the same name
- Defined as:

  "*the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services*" [Eccles MP, Mittman BS. Implement Sci. 2006;1(1):1]

- Builds on previous work in quality improvement, clinical audit, evidence-based practice etc.

‘KNOW WHAT’

- Evidence-based practice
- Clinical guidelines
- Systematic reviews

‘KNOW HOW’

- Implementation Science
- Strategies to promote the uptake of evidence in policy and practice

The need for implementation science?

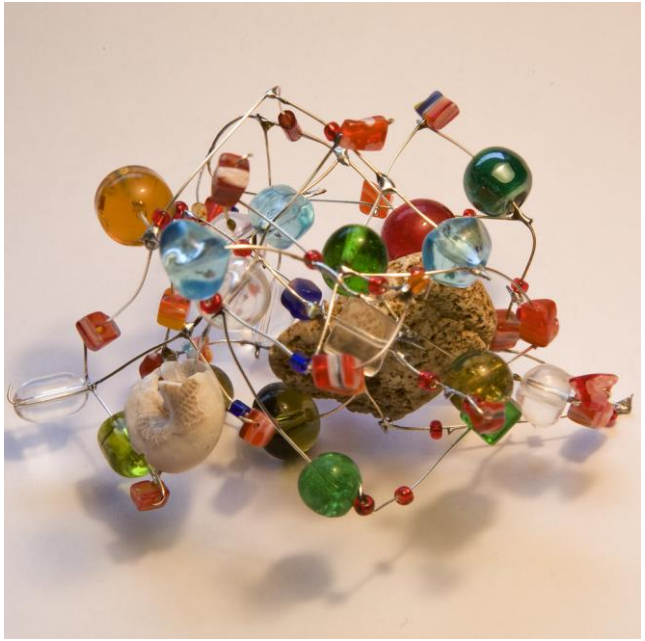
- Studies consistently find that appropriateness of care, according to evidence-based guideline recommendations, is around 60 to 70 per cent
- Similar findings from 1998 to the present day
- We need to get better at connecting the ‘know what’ and the ‘know how’

Key concepts

- Implementation is not a linear or rational process
- Context matters
- Involves both social and technical elements

How implementation happens

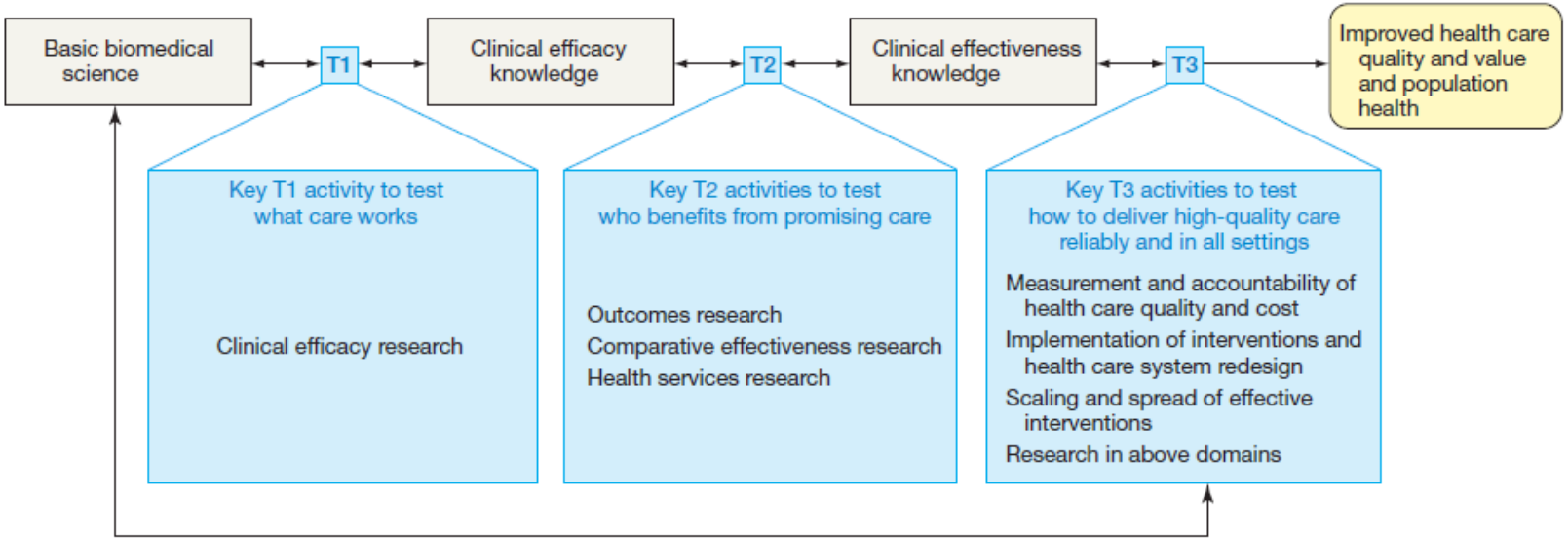
Source: Dennis R. Green, www.flickr.com



Source: Michael Heiss, www.flickr.com

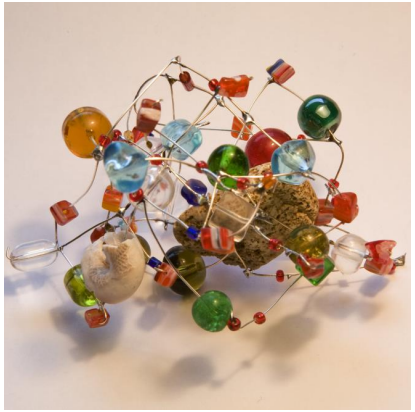
The Translation Pipeline

Figure. The 3T's Road Map



Dougherty and Conway, JAMA, 2008

The reality of implementation



- Complex
- Non-linear
- Multi-faceted
- Not just a product of ‘strong’ research evidence
- Context dependent
- Unpredictable
- Dependent on collaboration, networks and relationships
- A social, as much as a technical, process

How can implementation science help?

- Theories and frameworks to inform implementation
- Strategies for implementation
- Processes to achieve desired implementation outcomes

Implementation theories and frameworks

TDF

NPT

RE-AIM

Lots of them!

K2A

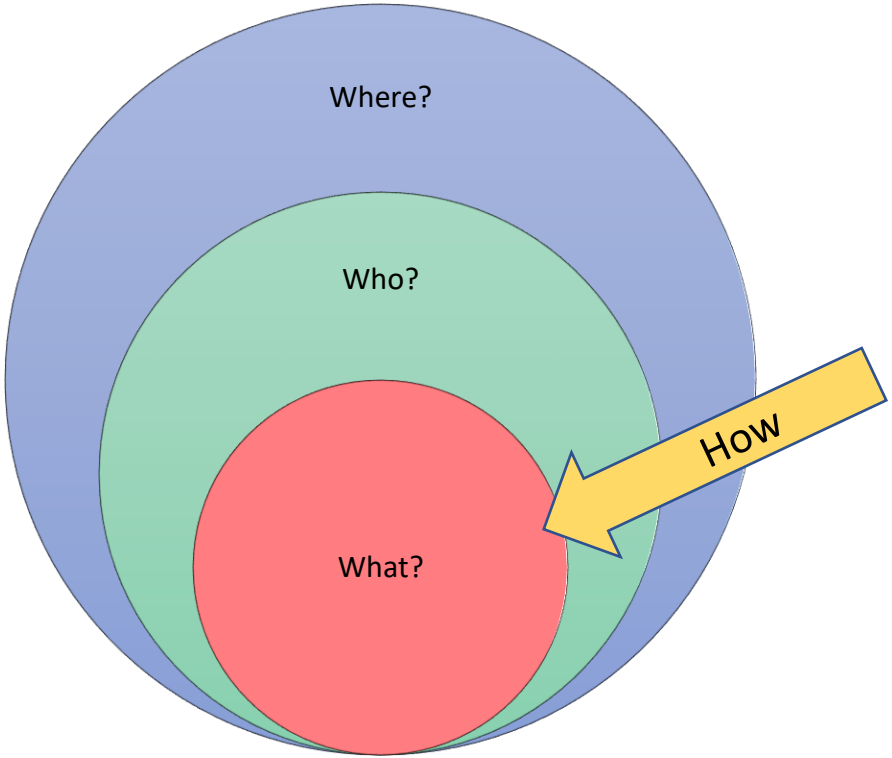
PARIHS

i-PARIHS

CFIR

Implementation theories and frameworks

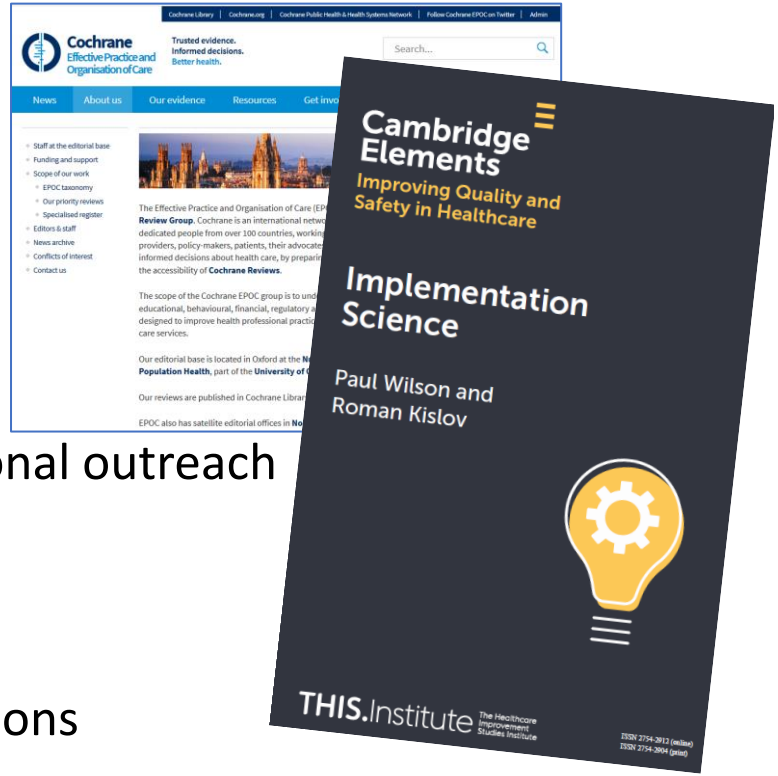
- Provide a ‘scaffold’ for planning, doing and/or evaluating implementation
- Identify the common elements to consider:
  - *What – the intervention or innovation*
  - *Who – do you want to implement it, support it?*
  - *Where – are you intending to implement?*
  - *How – do you plan to implement?*



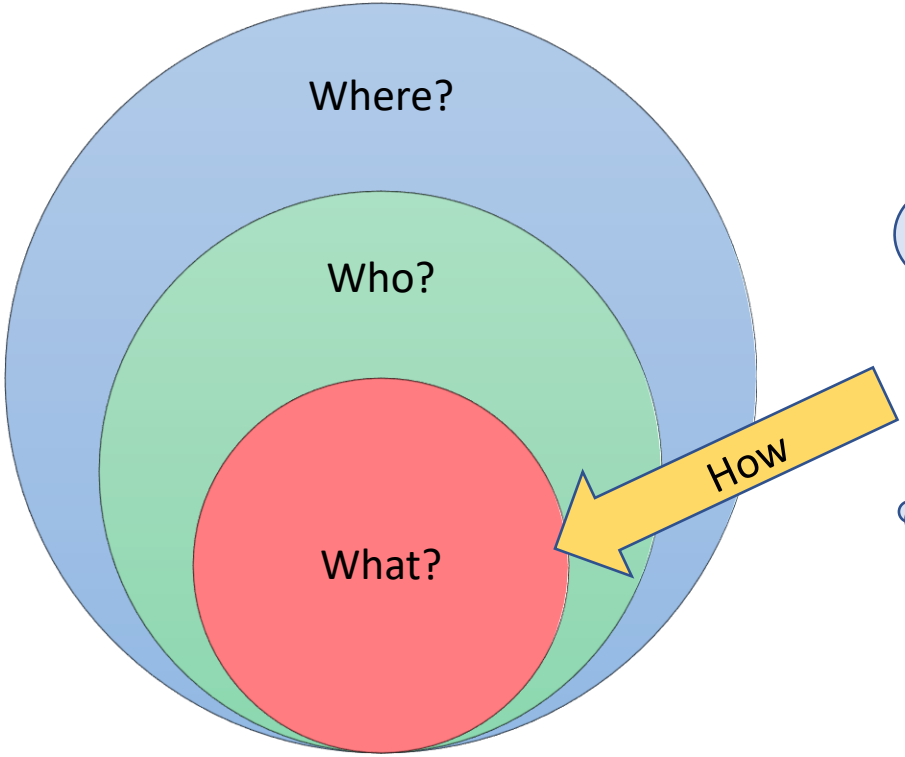
- Assess and understand barriers and enablers in relation to the what, who and where
- Identify appropriate implementation strategies and processes

Strategies for implementation

- Audit and feedback
- Quality improvement
- Printed materials
- Patient-mediated interventions
- Opinion leaders
- Academic detailers
- Knowledge brokers, facilitators, educational outreach
- Interactive education
- Reminder systems
- Financial incentives
- Multi-faceted implementation interventions



Selecting implementation strategies



“The art of implementation”

“The active ingredient”

Ongoing challenges

- Tailoring the right implementation strategies to the right project, people and context
- Addressing issues of equity
- The economics of implementation
- Ensuring a strong connection between implementation science and implementation practice

Bringing health innovation to life

AusHSI Australian Centre for Health Services Innovation

QUT Centre for Healthcare Transformation

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Implementation science in practice within Aboriginal and Torres Strait Islander health research

Flinders University

MTPConnect TTRA Webinar:
Aboriginal and Torres Strait Islander Health Research - Implementation Science
Wednesday 15 March 2023

Artwork credit
Elizabeth Yanyi Close, Pitjantjatjara/Yankunytjatjara, 2020

Flinders University acknowledges the Traditional Owners and Custodians of the lands on which its campuses are located, these are the Traditional Lands of the Arrernte, Dagoman, First Nations of the South East, First Peoples of the River Murray & Mallee region, Jawoyn, Kaurna, Larrakia, Ngadjuri, Ngarrindjeri, Ramindjeri, Warumungu, Wardaman and Yolngu people. We honour their Elders past, present and emerging.

Ray Mahoney

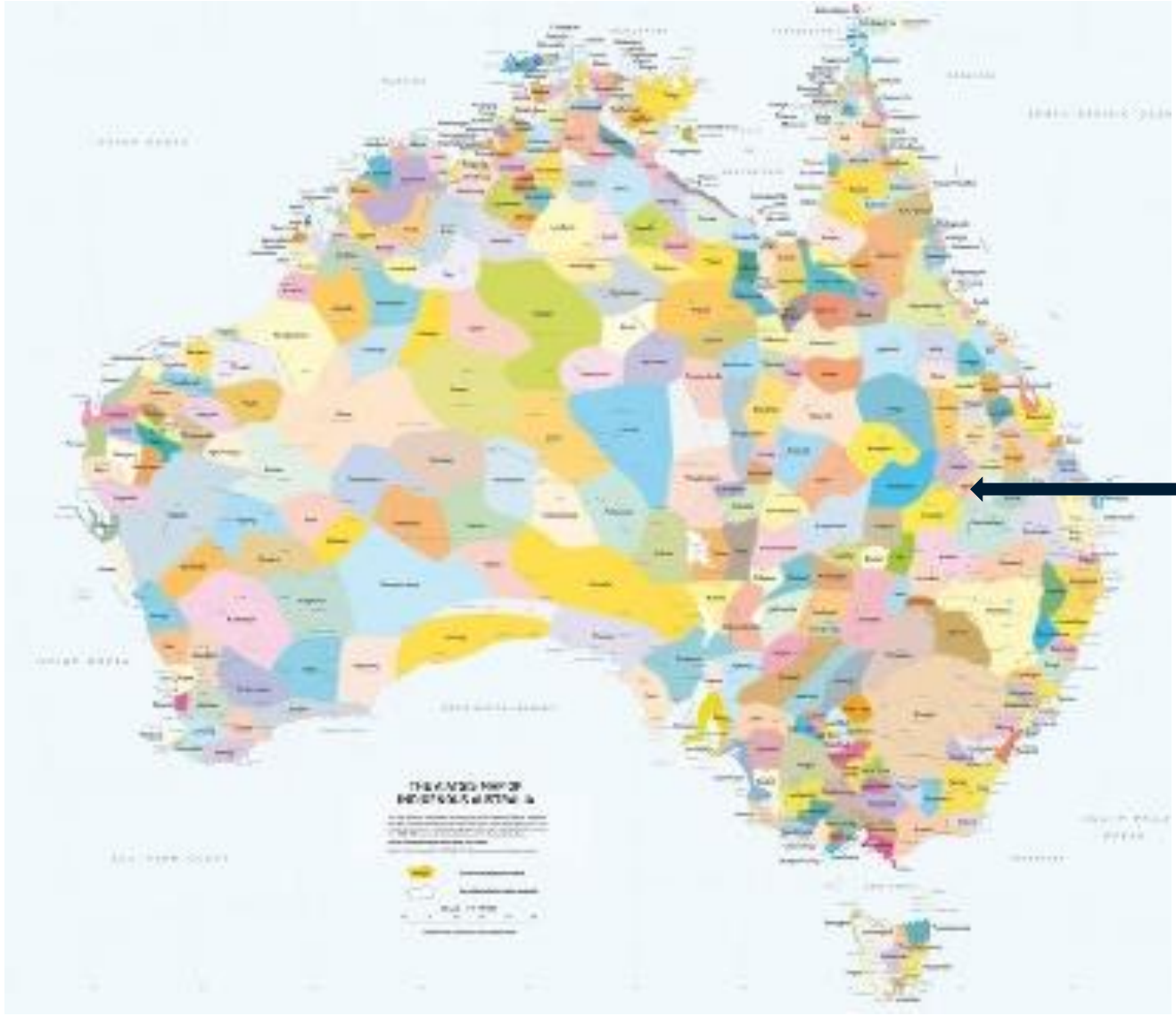
Flinders University
College of Medicine & Public Health

Professor of Aboriginal and Torres Strait Islander Health &
Discipline Lead for Population Health

CSIRO
Australian e-Health Research Centre

Visiting Scientist

BACKGROUND



Bidjara people
Central West Qld.

Indigenous Health Team

Australian e-Health Research Centre

Far North QLD:
- Cairns & Mareeba

North West QLD:
- Mt Isa & Mornington Is

Darling Downs QLD:
- Toowoomba & Dalby

South West QLD:
- St George & Charleville

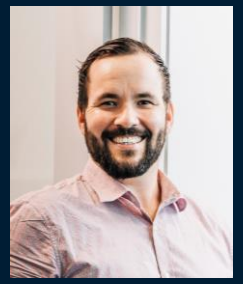
Wide Bay-Burnett QLD:
- Maryborough & Hervey Bay

Sunshine Coast QLD:
- Caloundra

Central Australia NT:
- Alice Springs

Ray Mahoney
Visiting Scientist

Georgina Chelberg
Team Lead & Research Officer



Andrew Goodman
PhD Candidate

Sophie Wright-Pedersen
Research Officer

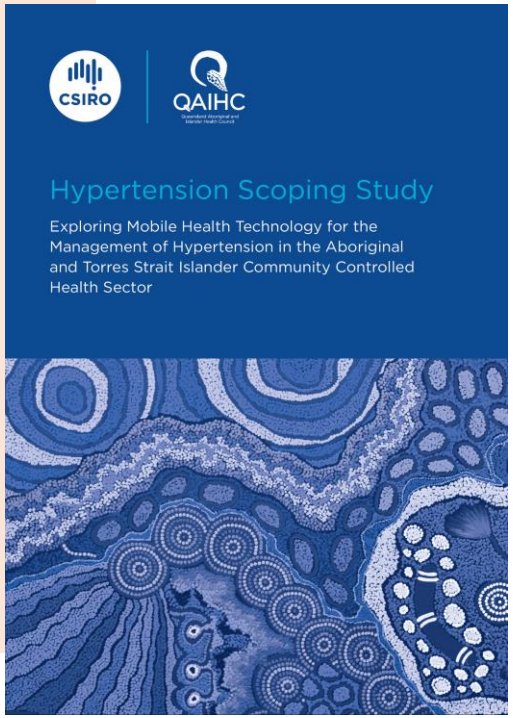
Megan Rebuli
Research Dietitian

Flinders University

Goondir Health Services

Implementation science in practice within Aboriginal and Torres Strait Islander health research

- Case Studies (What –Who - Where – How)
  - mHealth Hypertension
  - St George Community Wellbeing Centre
- Co-design
- Research Translation



goondir health services

better health, better living, longer life

St George Community Wellbeing Centre

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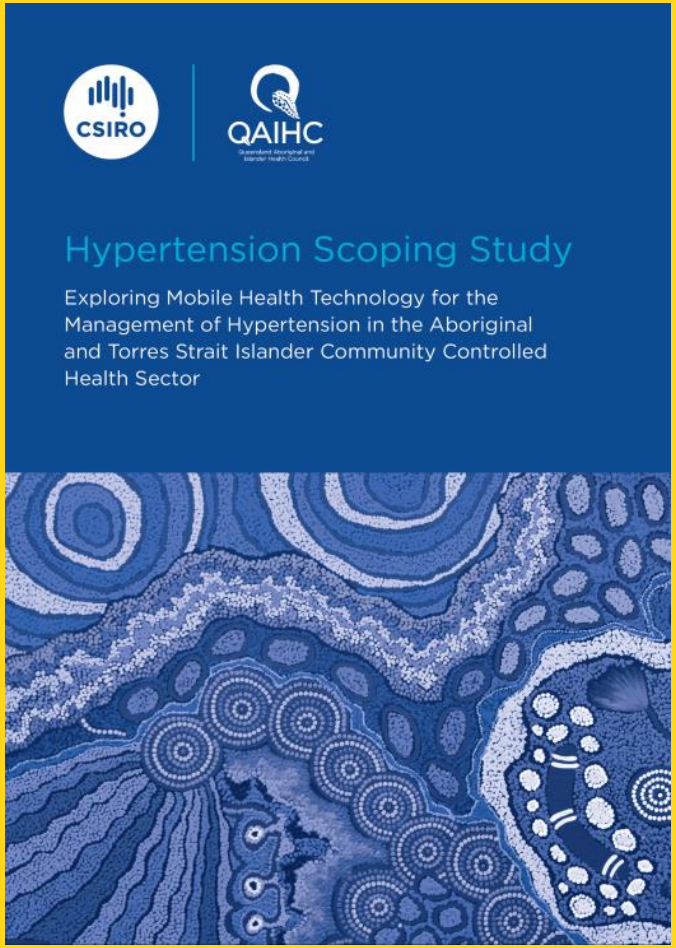
Case study 1

mHealth Hypertension



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mHealth Hypertension
strong-eH

- *Can mHealth support hypertension management with ATSICCHO clients?*
  - Scoping Study – next phase
  - Feasibility Trial
  - Local research protocols
  - Relationship building & Community Engagement
  - Partnership with ATSICCHOs in North QLD
  - Bluetooth readings, interactive portal for clinician and client

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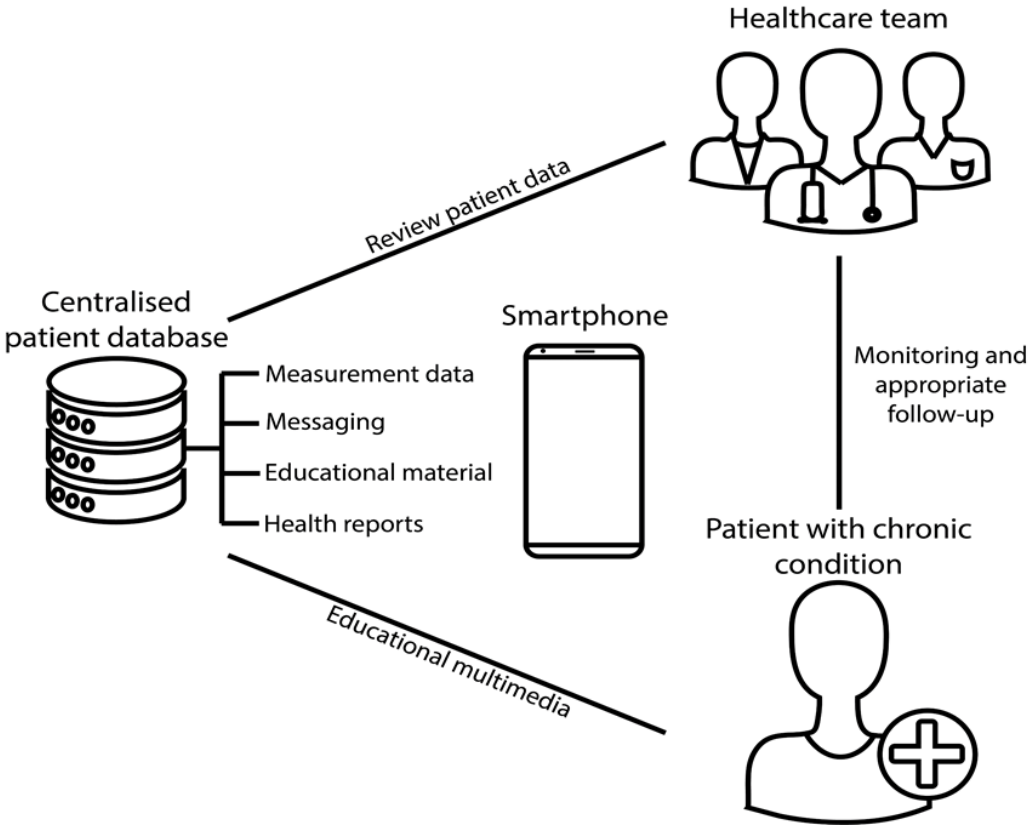
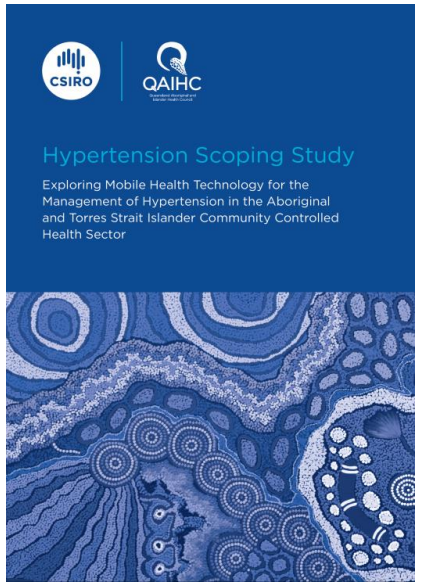
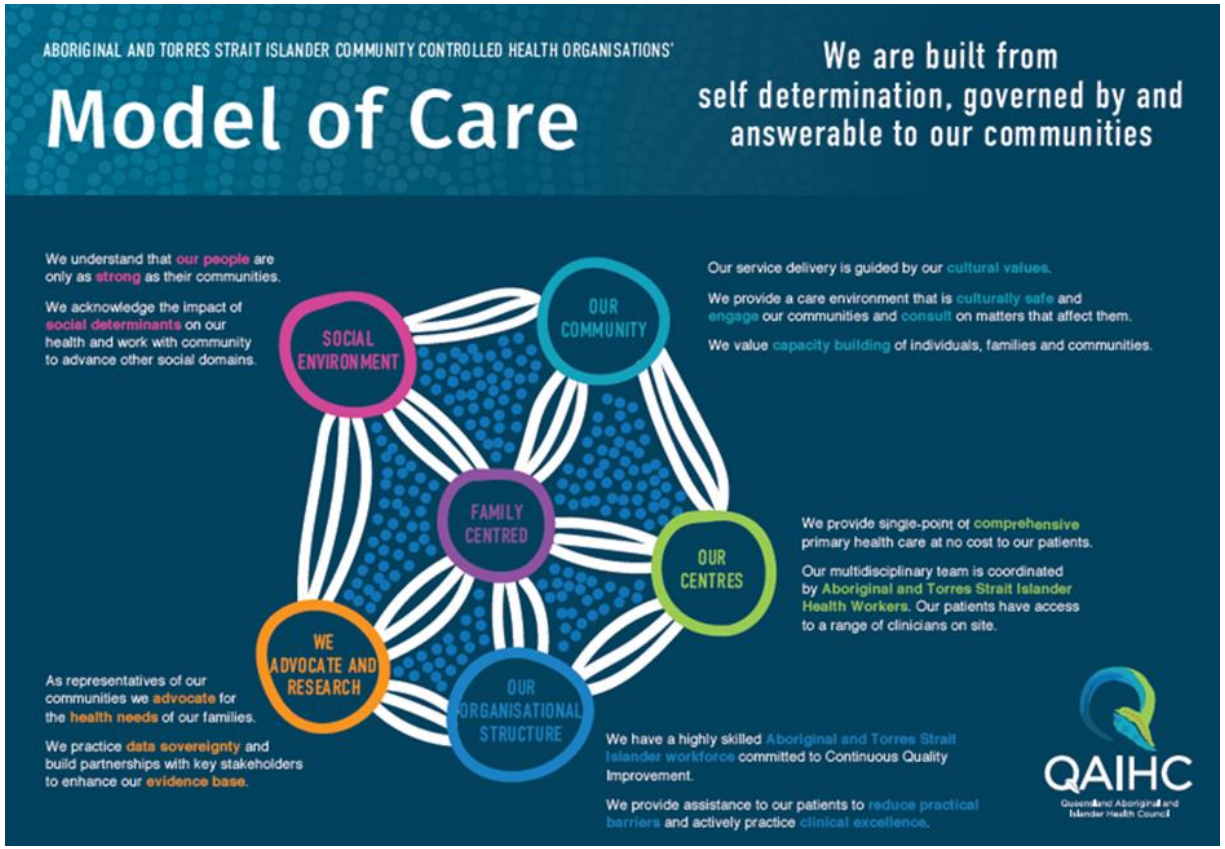
ATSICCHO Partners in North QLD





Co-designing Research – Case Study

Co-design methodology Qld Aboriginal & Islander Health Council (QAIHC) & CSIRO



- Appropriate scope and approach as per Aboriginal and Torres Strait Islander Community Controlled Health Organisation (ATSICCHO) priorities
- Co-design of engagement method
- ATSICCHO's were invited to participate
- Models of care

CSIRO Australian e-Health Research Centre

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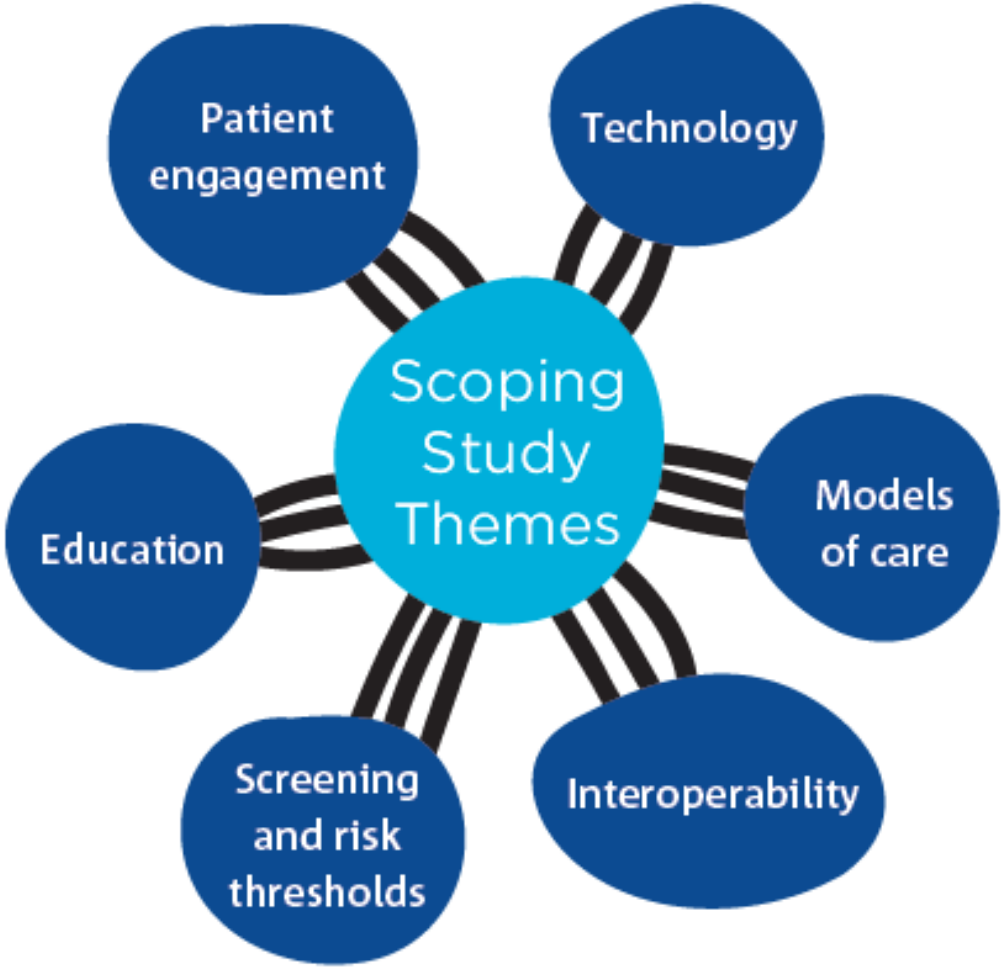
Community-driven Co-design

Overarching themes



Internet access
(Unreliable/limited)

Smart phone access
(1 phone per house)

Alignment with models of care

Education Tool
(Health Promotion)

Risk thresholds
(real time intervention)

Innovative Engagement
(interactive tool)

Data Sharing
interoperability
(EMR integration)

Patient 'ownership'
(self-management of patient journey)

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Research Translation

- Co-authored report (QAIHC / CSIRO)
- Localised site visits
- QAIHC Members meeting Nov 2020

THE AUSTRALIAN E-HEALTH RESEARCH CENTRE

QAIHC

Hypertension Scoping Study

Exploring Mobile Health Technology for the Management of Hypertension in the Aboriginal and Torres Strait Islander Community Controlled Health Sector.

The challenge

Chronic disease is the greatest contributor to the mortality gap between Aboriginal and Torres Strait Islander people and non-Indigenous people with Cardiovascular disease (CVD) the leading cause of death for Aboriginal and Torres Strait Islander people. Hypertension is a causal risk factor of CVD. Inequity in levels of access to health information and services is a contributing factor to the disparity in CVD diagnosis and mortality among Aboriginal and Torres Strait Islander people and non-Indigenous populations. With the growing prevalence of smartphones and other mobile devices, m-health represents an increasingly useful way for people to access health information and tools to understand, monitor and improve their health.

Our response

Researchers at the Australian E-Health Research Centre (AEHRC), CSIRO's digital health research program, have developed an mHealth based platform. This clinically validated mHealth platform will be a customised (app + Web portal) to hypertension management. As a base platform, the capacity of the app will include BP data collection and tracking by way of Bluetooth sphygmometre. This clinical collection will mitigate human error and ensure rigour in measuring not only systolic and diastolic reading independent of the patient but also track the frequency of Home Blood Pressure Monitoring (HBPM). Education components of the app will be delivered via text messages and educational videos/links covering information on hypertension and antihypertensive medications. (Figure 1).

CSIRO

The Australian e-Health Research Centre is CSIRO's national digital health program and a joint venture between CSIRO and the Queensland Government

Codesign Partners

The Queensland Aboriginal and Islander Health Council (QAIHC) is a leadership and policy organisation. It was established in 1990 and is the peak organisation body representing Aboriginal and Torres Strait Islander Community Controlled Health Organisations (ATSICCHO) in Queensland at both a state and a national level. QAIHC membership is comprised of ATSICCHOs located throughout Queensland which deliver holistic care that is patient and family centred, at no cost to the patient and at a single location. In delivering comprehensive primary health care, ATSICCHOs also provide treatment, prevention and early intervention, rehabilitation and recovery services.

Self-governance of primary health care for Indigenous People is recognised nationally and internationally as best practice. Community-control is a process which allows the local community to be involved in the priorities, protocols and procedures as determined by the community.

This Scoping Study was undertaken to determine whether further consideration of hypertension m-health is a relevant priority with the Aboriginal and Torres Strait Islander Health Sector and to provide valuable insights about the needs, preferences and priorities of how Aboriginal and Torres Strait Islander people may wish to engage with m-health for hypertension management.

The Scoping Study aimed to investigate and how m-health may apply to hypertension management within Models of Care (MOC) in ATSICCHOs.

The Results

Six overarching themes were identified; technology, interoperability, screening risks and thresholds, education and patient engagement. There are two key findings from this Scoping Study. Results contribute narrative information about the perceived value that m-health may have in the contexts of ATSICCHO patients and Models of Care. The consultation process and subsequent findings have built a culturally respectful foundation to guide engagement, partnership, co-design and implementation of hypertension m-health with ATSICCHOs in their communities.

The CSIRO mHealth platform uses smartphones and other mobile devices, to enable real-time information exchange between patients and healthcare service providers. mHealth can provide support and timely interventions, and by engaging patients in managing their own health conditions it has the potential to move the balance of power from healthcare providers to healthcare users and reduce the healthcare burden.

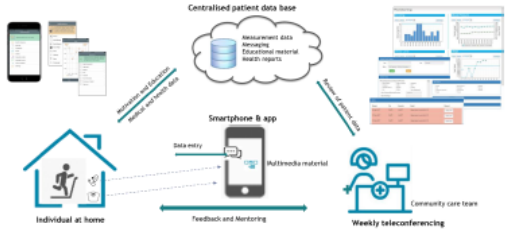

Figure 1: CSIRO Mobile Health Platform

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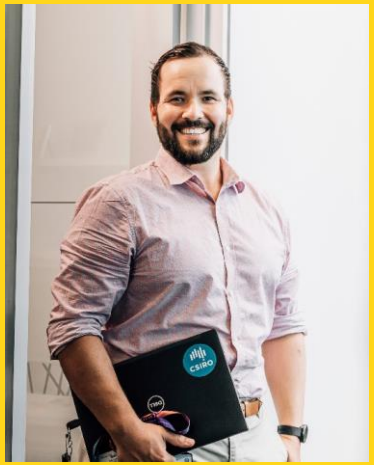
Dr Kelly Dingli, Manager, Research and Evidence | +61 7 3328 8583 | www.qaihc.com.au
Queensland Aboriginal and Islander Health Council

Capacity Building

Mr Andrew Goodman

- PhD Candidate, UQ Faculty of Medicine
- Heart Foundation Indigenous Research Award Scholarship
- CSIRO Postgraduate Indigenous top up Scholarship



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Case study 2

St George Wellbeing Centre Research & Evaluation

Goondir Health Services

goondir health services

better health, better living, longer life

St George Community Wellbeing Centre

Flinders University

Goondir Health Services

St George
Community Wellbeing Centre

St George in Central West Qld

- 3k+ people
- 17%+ Indigenous
- Activity and Meeting Rooms
- Kitchen, Food Storage & Café
- Fitness & Outdoor Spaces
- Governance and Coordination

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St George Wellbeing Centre - Aims

Contribute

Contribute to the 17 **Close the Gap targets**, with a specific focus on 7

Influence

Influence **intergenerational change to population-wide health and social and emotional wellbeing** through the ongoing delivery of locally tailored, place-based preventative and early intervention initiatives

Provide

Provide **cultural, health and mainstream education opportunities** to influence, change and empower community members

Deliver

Deliver an effective model of **preventative health service delivery that focuses on holistic wellbeing** through partnership and collective place-based service delivery

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Australian e-Health Research Centre

Research & Evaluation Governance

Research Oversight Committee (ROC)

- Coordinates the research

Members:

- Goondir Health Services
- CSIRO
- Flinders University
- University of Queensland
  - Centre for Online Health
  - Rural Medical School
- Southern Queensland Rural Health
- Indigenous Land and Sea Corporation

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Research & Evaluation Design

Two arms

1. **WBC Evaluation:** ongoing monitoring, and process and impact measures to understand how well the WBC has been delivered and determine areas for enhancement continuously over time
2. **Longitudinal study:** look at the effect of the WBC over an extended period of time on the local St George community against the Closing the Gap targets.

Shubham Weling, GHS, Georgina Chelberg, AeHRC, Sophie Wright-Pedersen, AeHRC, Ray Mahoney, Flinders & AeHRC, Floyd Leedie, GHS.

Sophie Wright-Pedersen
Research Officer

Megan Rebuli
Research Dietitian

Flinders University

Australian e-Health Research Centre

CONCLUSION

Questions:

- Are you working with or for the Aboriginal and Torres Strait Islander community?
- What is Indigenous leadership and decision making in research?

Challenge:

- Where does codesign fit? In Implementation Science? In ethics?

Tips:

- Be flexible with the start point.
- Invest time and resources into building and maintaining relationships
- Understanding what does and doesn't work
- Lived expertise of Aboriginal and Torres Strait Islander People critical in implementation science

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Questions

Thank you

Ray Mahoney
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