**Centre of Research Excellence
in Rural and Remote Primary Health Care**

Access & equity in the provision of primary health care services in rural and remote Australia

Seminar to the Department of Health, Canberra
12 August 2014

MONASH University
Medicine, Nursing and Health Sciences

**Broken Hill University
Department of Rural Health**

Centre for Remote Health
A joint centre of Flinders University and Charles Darwin University

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Funded by the

Australian Primary Health Care Research Institute (APHCRI)

2011-2014

Today's presentation

1. CRE background and rationale

2. Overview and aims of CRE

3. Research streams and progress

4. Knowledge transfer & exchange strategy

5. Research capacity building program

6. Conclusion

Background & rationale

- Good health is a basic right of all Australians

- Health status is worse in rural and remote areas and parallels socio-economic disadvantage

- Workforce shortage and maldistribution are key issues in rural and remote areas

- Problems of access and existing inequities contribute to poorer health outcomes

- Problems are most acute for residents of small isolated communities

Previous APHCRI research

- Systematic review of PHC models in small rural and remote communities

- Detailed investigation of implementation, sustainability and generalisability of PHC models

- Systematic review examining the link between workforce retention and professional development

- Systematic review of workforce retention strategies

- Studies examining measurement, costs and benchmarks related to turnover and retention

Good knowledge of service 'inputs But what about 'outputs"?
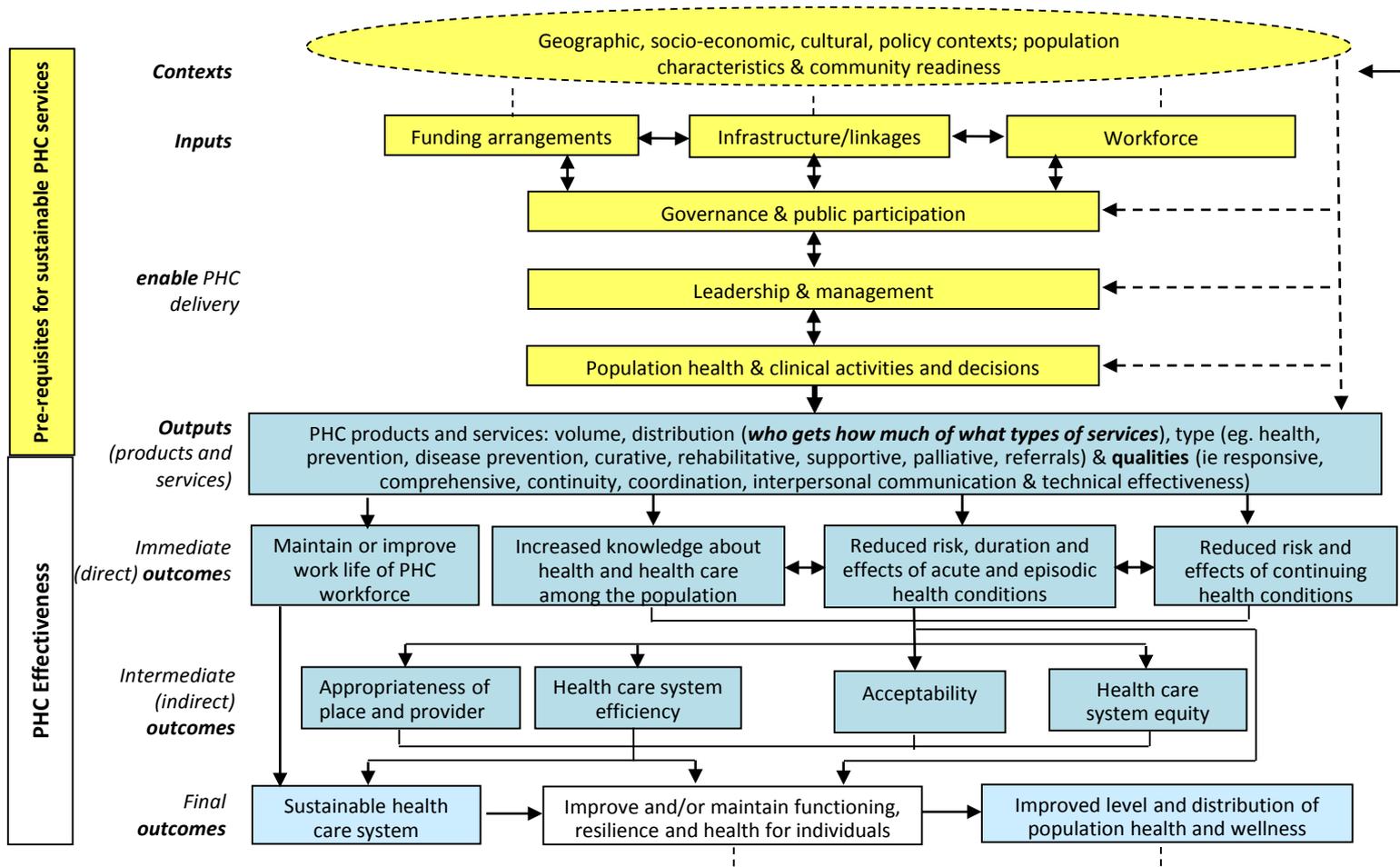
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2.   Overview & aims of CRE

The CRE team and footprint and team

Victoria	Northern Territory	New South Wales
Bendigo & Gippsland	Alice Springs & Darwin	Broken Hill

Chief Investigator	John Wakerman
Project Manager	Lisa Lavey
Other Chief Investigators	John Humphreys
	Matthew McGrail
	David Lyle
Plus Associate Investigators, Postdoctoral Fellows, PhD students, International experts & health service participants	

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CRE Aims

- **Stream 1**: Develop a better understanding and improved **measure of access** to PHC services

- **Stream 2**: Develop an **evaluation framework** for monitoring impact of PHC services on access and equity of health outcomes in rural and remote Australia

- **Stream 3**: Develop and evaluate appropriate sustainable PHC **service models** in priority health areas

- **Build PHC research capacity** in rural and remote areas

Expected outcomes

- Relevant and timely evidence-based policy research

- Research translation including high level of stakeholder participation in research/policy development – National Advisory Committee, Delphi Group, health services

- Increased research capacity – completed PhDs, independent post-docs, ongoing activity

3. Research streams and progress

Stream 1:
Measuring access to PHC

Background:

- Existing schema for measuring access is deficient

Key policy issues:

- How can we best measure access to PHC services?
- What are the implications of using different access measures?

Output:

- A more appropriate '**index of access**' to PHC services than just 'rurality' or 'remoteness' classifications

Stream 1
Measuring access to PHC

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1. National index of access for non-metropolitan Australia

2. Constructed using smallest possible geographical unit

3. Primary health care providers (GPs, Nurses, Allied Health)

4. Uses current, accurate data and latest methodologies

5. Capable of adjustment to reflect changes

6. Undertaking validation and sensitivity assessment

Conceptual framework

Availability	Proximity	Health Needs
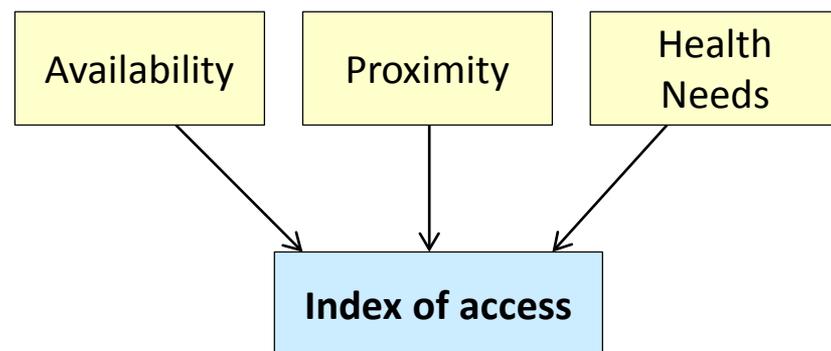
Index of access

Two-state floating catchment method

Step 1: Calculate service catchments
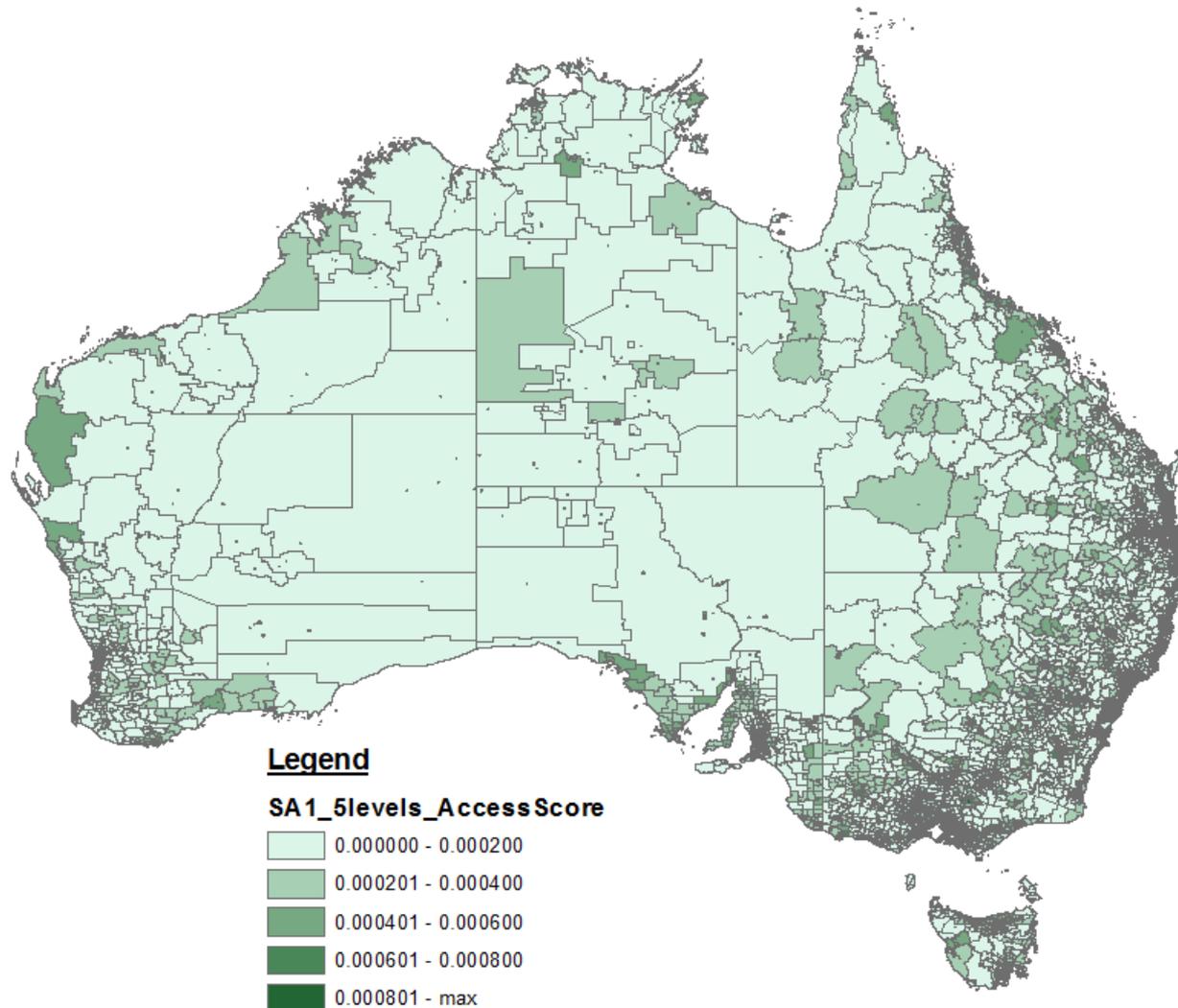
$$R_j = S_j / \sum_{k \in [djk < dmax]} P_k * f(d_{jk})$$

Step 2: Calculate population catchments

$$A_i = \sum_{j \in [dij < dmax]} R_j * f(d_{ij})$$
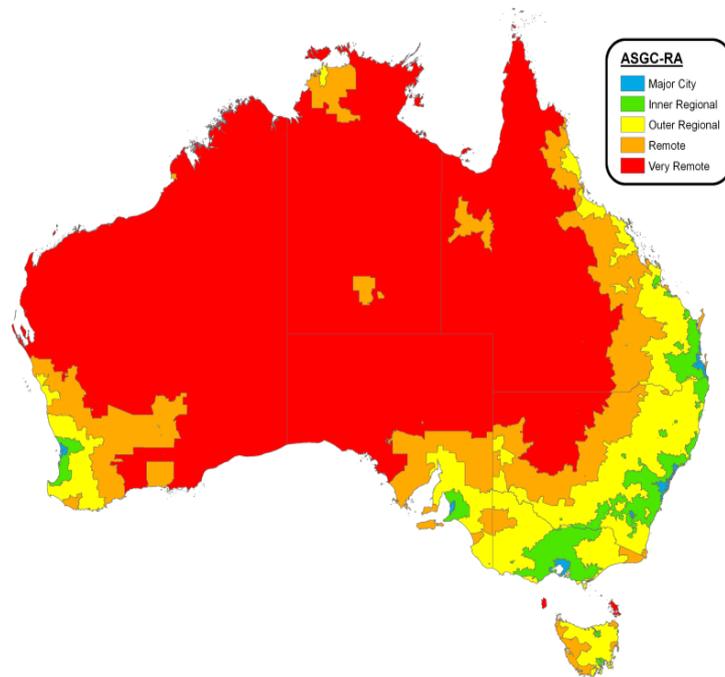
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Legend

SA1_5levels_AccessScore

- 0.000000 - 0.000200
- 0.000201 - 0.000400
- 0.000401 - 0.000600
- 0.000601 - 0.000800
- 0.000801 - max

Different access criteria result in different eligibility for resources

Current

Proposed

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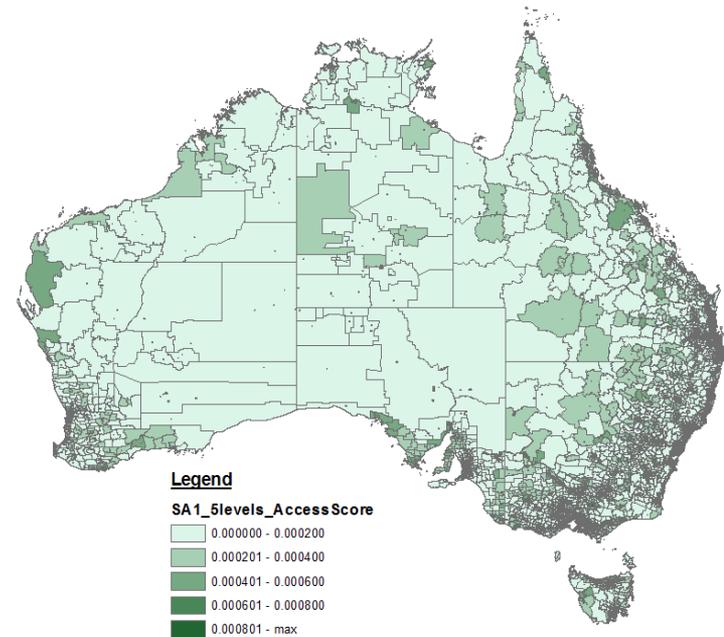
- **Development of a new national-level Index of Access**
  - ➤ Process - demonstrate deficiencies of existing approaches; audit available data; empirical research to underpin more appropriate measure; develop methodology.
  - ➤ Products - 3 papers submitted, 2 presentations, main paper and non-technical working paper drafted.

- **Monash model (Mason review, Senate enquiry)**

- **NHMRC Career Development Fellowship** (McGrail)

- **2 PhDs** – Russell (2014); Chisholm (2015)

Background:

- Many rural and remote communities lack access to effective and sustainable PHC services.

Key policy issues:

- What PHC services do communities of different sizes and locations require?
- What indicators and benchmarks should be used to monitor service performance, quality and sustainability?
- What are appropriate models of community participation in PHC?

Outputs:

- A comprehensive evaluation framework which includes:
    - funding benchmarks for rural and remote contexts;
    - human and physical resources, multi-disciplinary staffing mix, and supports required; and
    - different mechanisms of community participation optimised for context

Stream 2 Progress

- **Core PHC services**
  - ➢ Defined - Care of the sick & injured; Mental health, Maternal and child health; Allied health; Sexual & reproductive health; Rehabilitation; Oral health; Public health & illness prevention.
  - ➢ Systematic review published BMC Health Services Research – highly accessed
  - ➢ Core services paper under review BMC Family Practice
  - ➢ Implementing core services paper in development

- **Funding benchmarks**
  - ➢ Australia-wide rural and remote fieldwork under way

- **PHC evaluation framework**
  - ➢ Paper documenting adaptation of Elmore framework in remote areas in preparation

Stream 2 Achievements

- Gaydor-White et al *Medical Journal of Australia* **funding benchmark** paper – 44% more required for management of diabetes & chronic kidney disease

- Impact of **community participation** on PHC – Journal of Primary Health Care

- **Fitzroy Valley** publications
  - Community process
  - Impact
  - Evaluation framework
  - PhD enrolment

Stream 2 output example: Strengthening PHC is cost-effective

- NT Indigenous diabetics in remote areas 2002-11
- Increased access to PHC resulted in:
  - ➢ Decreased hospitalizations X 5
  - ➢ Decreased death rates X 3
  - ➢ Decreased years of lost life X 5
  - ➢ Decreased costs - $248/$739 VS $2915

Thomas et al, 2014: *Medical Journal of Aust*ralia

Stream 3:
To evaluate sustainable PHC models

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Background:

- Metropolitan PHC models do not fit rural and remote settings
- Few rural and remote PHC models have been evaluated

Key policy issues:

- What service models will best ensure access and equity to mental health, aged care and comprehensive PHC in rural and remote Australia?

Output:

- Evidence-based evaluation showing what models work well to provide effective, sustainable PHC

Evaluations:

- **Mental health emergency care**
  - ➤ 3 papers published, 2 in preparation; PhD on track

- **RFDS Studies (NSW)**
  - ➤ Diabetes study finalised, paper submitted
  - ➤ New study on clinical handover under ethics review

- **Fitzroy Valley PHC re-orientation (WA)**
  - ➤ See Stream 2

- **Youth suicide and youth services mapping in central Australia**
  - ➤ Completed

- **Patient-led appointments in routine mental health practice (NT)**
  - ➤ Completed

Overarching Stream 3 paper:
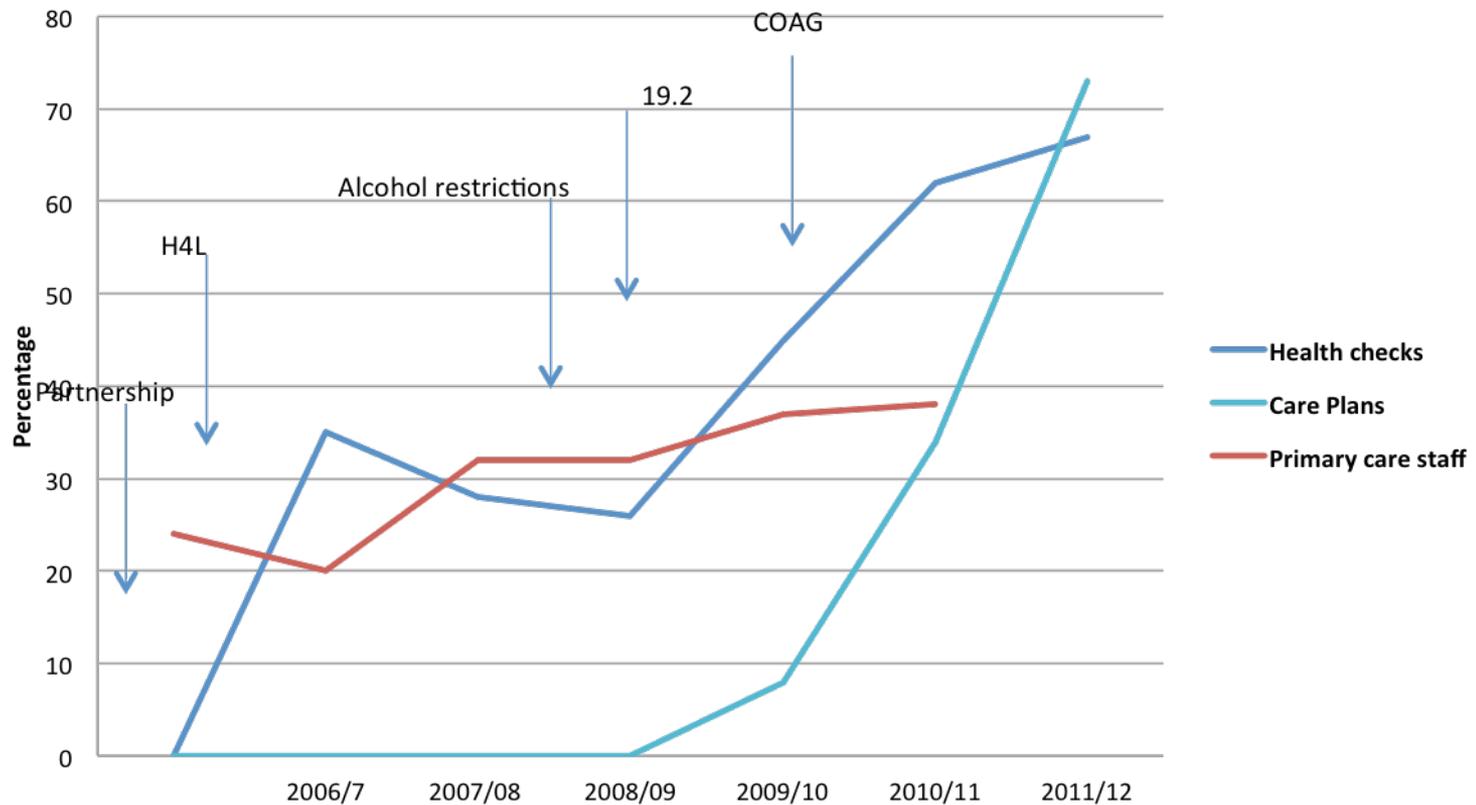
- In preparation

Stream 3 Achievements

- **Project Outputs**
  - All projects in write up and dissemination phases
  - Most have already published in referred journals
  - Formal and informal translation activities, including presentations and educational activities

- **New Projects**
  - Service Learning Evaluation Plan (unsuccessful ARC Linkage) (multi-site)
  - Royal Flying Doctor Service Handover Project (NSW)
  - Palliative Care Service Evaluation (NSW)
  - NHMRC Kimberley Carer Support Project (WA)
  - Developing a nutrition screening tool for older Aboriginal people (NT)
  - Realist review of telehealth in PHC
  - Rural access to drug and alcohol

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4. Knowledge transfer & exchange strategy

Knowledge transfer

Comprehensive strategy:

- Strengthened relationships with consumers, providers and policymakers

- Increased capacity and research literacy of policymakers and practitioners

- Highly accessed dedicated website

- Peer-reviewed academic papers

- Conference presentations

- Curricula

- Evaluation of impact describing strengthened evidence-informed policy and practice

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Knowledge transfer matrix to measure impact of CRE

Broad area of impact	Specific areas of impact	Key audience Stakeholders	Evidence	
			Producer push	**User pull**
Research-related impact 'Advancing Knowledge'	➢ New knowledge ➢ Capacity building	➢ Researchers ➢ Educators ➢ Media	➢ **Publications** ➢ **Media releases** ➢ **Grants** ➢ **PhDs**	➢ **Access hits & citations** ➢ **Media interviews** ➢ **Secondary circulation**
Policy impact 'Informing decision making'	➢ Evidence base ➢ Influence in decision-making	➢ Policy makers ➢ Politicians ➢ Professional bodies	➢ **Policy briefs** ➢ **Presentations**	➢ **Rapid responses DoHA)** ➢ **Decision maker awareness & use (DoHA/services)** ➢ **Invited policy papers**
Service impact 'Improving health & health systems'	➢ Evidence-based practice ➢ Quality & safety ➢ Efficiency ➢ Cost effectiveness	➢ Managers ➢ Health workforce ➢ Consumers	➢ **Evaluation reports** ➢ **Practice guidelines** ➢ **Recommended models**	➢ **Decision maker awareness & use (RDA)** ➢ **Board membership**
Societal impact 'Creating broad social & economic benefit'	➢ Health literacy ➢ Health behaviour ➢ Health status	➢ Consumers ➢ advocates	➢ **Media releases** ➢ **Evidence of changes**	➢ **Website hits** ➢ **Media coverage (Croakey, OZ Doc, ABC)** ➢ **Consumer surveys**

KT outcomes

- National Advisory Committee meetings X 5

- Stakeholder Presentations x 39

- Evidence of uptake/usage x 54

- 42 conference presentations – 11 invited

- CRE submission + called as witness to Senate Enquiry into Rural Health Workforce

- Technical Advisory Group for geographical systems review

- Several references to CRE work in Australian Parliament

- 64 Pull media events & 27 Push media events

- 53 peer reviewed publications

- 6 newsletters

5. Research capacity building program

Research Capacity Building

Goal: Build research capacity of the next generation of rural and remote health researchers.

This will be achieved by:

- **growing our own** – 5 PhDs, 3 post-doctoral fellows, research succession planning, extending research culture through collaborations

- **extending the range of research training** - reducing researcher isolation, increasing researcher access to support and training, linking research with stakeholders and end users

Research capacity building activities

- Australia-wide novice researcher program for PHC workers in rural and remote services

- Shared supervision/external supervisors

- Face-to-face writing workshops/weeks

- Research seminar program

- Selected conferences

- Research scholars as educators

Building research capacity Progress

- **PhD Students**
  - ➤ Deb Russell submitting August 2014
  - ➤ Emily Saurman on track to submit early 2015
  - ➤ Marita Chisholm on track to submit March 2015
  - ➤ Michael Tyrrell on track to submit end 2014
  - ➤ Carole Reeve to submit 2015

- **Early Career Researchers**
  - ➤ 7 of 8 (88%) remain in the program
  - ➤ 4 have completed, 2 in write up phase and 2 collecting data
  - ➤ 3 presentations at 2014 *PHC Research Conference*
  - ➤ 1 presentation at 2014 *Institute of Family Studies Conference*

- **Evaluation of Early Career Researcher Program**
  - ➤ Ethics approval granted
  - ➤ Participant interviews scheduled

Research capacity building Achievements

- **2014 Primary Health Care Research Conference presentations**

  ➢ Carole Meade " A General Practice Model of care in residential aged care facilities"

  ➢ Di Roberts "A clinical Audit of a diabetes self-management program in rural Victoria"

  ➢ Laurencia Grant "Analysis of secondary data on Aboriginal Youth Suicide and referral pathways"

- **2014 Australian Institute of Family Studies Conference presentation**

  ➢ Fiona Tipping "Pacific Islander parents' perceptions of school readiness"

Conclusion

- Improving access and equity requires sound evidence and translation into policy and practice

- These are current and important 'wicked' problems with ongoing challenges such as:
  - ➢ building rural health research capacity;
  - ➢ the inherent difficulty of operationalising equity;
  - ➢ establishing appropriate rigorous evaluation methodologies;
  - ➢ getting access to data; and
  - ➢ engaging busy end-users.

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Conclusion

Through its **activities** the CRE has:

- **Investigated key policy issues** and problems;
- Produced **empirical evidence** across multiple sites, states and institutions;
- **Engaged policymakers and service providers** in the process; and
- Generated important **new evidence** for policy.

The CRE has increased **research capacity**:

- Service **staff, students** on placement, **PhDs, post-docs**, and **promotion** of staff to leadership pathways
- **Critical mass** across rural sites, with other CREs

CRERRPHC contacts

- CRE website: www.crerrphc.org.au

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