Number 8 fencing wire approach to building research capacity

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June 2014
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Perspective

- Head of Department of General Practice & Primary Health Care, University of Auckland
- Founding Editor, Journal of Primary Health Care
- Executive member, WONCA Working Party on Research
- Vice-Chair, International Committee, North American Primary Care Research Group
Why number 8 fencing wire?
Number 8 fencing wire tradition

- Because we live great distance from any other country, had to invent things could not easily obtain
- Egalitarian culture
- Put our hands to anything – have multiple roles
- Ability to improvise & adapt to solve problems using readily available resources
- Ubiquitous resource
Kiwis can make anything from #8
NZ & Africa are oceans apart
## Comparing NZ & Primafamed countries

<table>
<thead>
<tr>
<th></th>
<th>NZ</th>
<th>Primafamed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geography</strong></td>
<td>Isolated islands</td>
<td>Continental</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>‘Developed’</td>
<td>‘Developing’</td>
</tr>
<tr>
<td><strong>Health professional brain drain</strong></td>
<td>To UK &amp; Australia</td>
<td>In &amp; external to Africa</td>
</tr>
<tr>
<td><strong>Population million</strong></td>
<td>4.5</td>
<td>12 – 66</td>
</tr>
<tr>
<td><strong>Land mass 1000 km²</strong></td>
<td>268</td>
<td>26 - 2,345</td>
</tr>
<tr>
<td>Primafamed country</td>
<td>Population million</td>
<td>Total land area km²</td>
</tr>
<tr>
<td>--------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>Rwanda</td>
<td>12</td>
<td>26,340</td>
</tr>
<tr>
<td>Ghana</td>
<td>15</td>
<td>238,540</td>
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<tr>
<td>Sudan</td>
<td>30</td>
<td>1,886,070</td>
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<tr>
<td>Uganda</td>
<td>34</td>
<td>236,040</td>
</tr>
<tr>
<td>Kenya</td>
<td>43</td>
<td>582,650</td>
</tr>
<tr>
<td>Tanzania</td>
<td>47</td>
<td>945,090</td>
</tr>
<tr>
<td>South Africa</td>
<td>49</td>
<td>1,219,910</td>
</tr>
<tr>
<td>Nigeria</td>
<td>57</td>
<td>923,770</td>
</tr>
<tr>
<td>DR Congo</td>
<td>66</td>
<td>2,345,410</td>
</tr>
</tbody>
</table>
Challenges for NZ PC research

- Limited resources compared with nearest neighbour (Australia)
- Capacity issues – to reach critical mass
- Share some Number #8 solutions
What is primary health care?

- Declaration of Alma-Ata, 1978
- 1st level of contact of individuals, family & community with national health system
- Brings health care as close as possible to where people live & work
- Constitutes 1st element of continuing health care process

Declaration of Alma-Ata, International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 Sep 1978
Why primary (vs secondary) care?

- Better health outcomes - reduces morbidity & premature mortality
- More equitable distribution of health in populations
- Lower costs
- Higher user satisfaction

Baicker K, Chandra A., Medicare spending, the physician workforce, and beneficiaries’ quality of care. *Health Affairs*
Improves care in countries with limited resources

Example – in Brazil, family medicine compared with hospital-based care led to:

• Reduced perinatal mortality
• Improved child nutrition
• Reduced hepatitis A infection
• Better delivery of preventive services

Sant’Ana AM, Rosser WW, Talbot Y. Five years of family health care in Sao Jose. Family Practice 2002;19:410-415
Why primary care research?

- Study patients who present with conditions, not cases (as in secondary care)
- Undifferentiated presentations
- Multi-morbidity
- Where most care takes place
Multi-morbidity

The Ecology Scheme*

1,000 persons

800 report symptoms

327 consider seeking medical care

217 visit a physician’s office

113 visit a primary care physician’s office

65 visit a complementary/alternative medicine provider

21 visit a hospital outpatient clinic

14 receive home health care

13 visit an emergency department

8 are hospitalized

1 is hospitalized in an academic medical center

*Source: Robert Graham Center in Washington

What is primary care research?

- Research in (not just about) primary care
- Any research in primary care setting
- Much research conducted in hospital settings – study participants with single disease / condition
- Best practice involves applying empirical knowledge to specific patient context
Synthesis of knowledge into best practice

- Research evidence
- Contextual evidence
- Professional wisdom

Decision-making
Research informs clinical practice & teaching

Teaching

Clinical

Research
Relatively new area of research

- GP & PC as discipline 1970s
- Very little PC research 1975
- Huge growth in research last 30 years
- ‘Primary Health Care’ official subject heading in Index Medicus 2009
Screening policy
Medicolegal issues
Ethical considerations
Patient comorbidity
Patient attitudes
Communication
Practitioner values
Practitioner & patient survey
Determinants of health
Diagnostic test
Randomised controlled trial
Systematic review
Meta-analysis
Clinical research
BEST PRACTICE
Research Methods
Study Domains
Qualitative study
Mixed method

- Primary care questions often best answered by both quantitative & qualitative methods
  - **Quantitative**: Where, when something happened, to what degree
  - **Qualitative**: What is going on? Why is this happening?

- Adds narrative to numbers
Types of primary care research

Clinical
eg
• Epidemiology
• Efficacy & safety of diagnostic & treatment methods
• Outcomes

Types of primary care research

Health systems:

e.g.

- Most effective systems & policies
- How to implement quality management
- How to structure health care systems to care for common risks
- Patient satisfaction


Types of primary care research

Methods:

eg

• Measurement tools (how do we measure health in different cultures?)

• Value of primary care information (how valuable is the information we get?)


Tanser, F. Methodology for optimising location of new primary health care facilities in rural communities: a case study in KwaZulu-Natal, South Africa. J Epidemiol Community Health. 60(10):846-50
Types of primary care research

**Educational:**

- Explore best ways to educate students, family physicians & other clinicians
  - How to be a better teacher?
  - What are the CME needs of PC clinicians?

- Evaluations of training programmes


Schull, M. From PALSA PLUS to PALM PLUS: adapting and developing a South African guideline and training intervention to better integrate HIV/AIDS care with primary care in rural health centers in Malawi. Implement Sci. 6:82, 2011.
1
Tips from role as Academic Head, Department of General Practice and Primary Health Care, University of Auckland
Strategies we have used to increase research capacity in NZ

Number 8 fencing wire mentality:

- Address small numbers & isolation
- Use what is at hand (pragmatic)
- Adaptable (can be inter-disciplinary)
Reach critical mass
Annual research retreats

- Low budget
- Inclusive nationally
- Focus on mentoring & feedback
- Create community of researchers
- Collaboration not competition

Link people together
Build research teams

**Combine skills:**

- Coordinate project

- Writing – proposals, ethics, reports, papers

- Engage stakeholders – clinical sites, patients, funders

- Analysis – quantitative including biostats, qualitative
Up-skilling in research methodology

- Formal face-to-face courses – University and other
- On-line courses
- Methodology papers in eg in African Journal PHCFM
- In-house workshops
- Mentoring
- Collaborative discussions
Partnerships & collaborations

- Other clinicians
- Academics from other institutions
- Inter-disciplinary eg medicine, nursing, pharmacy
- Health sector eg community, hospital, Ministry
- Commercial sector eg private clinics, diagnostics & pharmaceuticals (beware research compromise)
Develop research sites & networks

- Research culture
- Patient consent for use of anonymised data
- Connect sites / practices into networks
- Conduct audits
- Quality improvement cycles
- Assessing, evaluating what already doing
Supervise

- Emerging researchers
- Summer studentships
- Honours
- Masters
- Doctorates
Funding

• Ongoing & increasing challenge
• University, government, private sector, philanthropic, international
• Push for PC ring-fenced awards
• Explore low cost questions / methodologies
Involve team in research

- Brain-storm research question
- Develop methodology
- 1 person lead under guidance (1st author)
- Allocate tasks
- All authors on peer-reviewed publications if contribution to:
  - design and/or analysis
  - writing
Research educational initiatives

Current or recent projects involving our Department UG teaching team:

- Patient simulation vs GP attachment - RCT
- Mini-CEX assessment – inter-rater correlation
- U-AGREE – development of tool to measure educational environment
- Reflective professional groups – conversational analysis
- Students accompanying patients to hospital (primary / secondary interface) - survey
2
Founding Editor,
Journal of Primary Health Care
Start a journal

You already have...
Journal of Primary Health Care

- Started 2009, 4 issues per year
- Medline listing 2010
- RNZCGP hence no processing fee
- Broad scope - encourage interdisciplinary
- Templates to write papers

Journal reviewing

- Reviewing papers helps understand research & improve own writing
- Templates to help reviews
How to write

- In NZ & international (especially Australia)
- Learn how to write:
  - Research proposals
  - Ethics applications
  - Reports
  - Papers for publication
- From 1 hour to 1 week
- Workshops
- Writing clinics 1 on 1, up to 3 appointments
3
Executive member, WONCA Working Party on Research
WONCA Working Party on Research

Vision

Research is a core component of general practice / family medicine / primary health care training, scholarship & clinical practice in all nations

Objectives

1. Promote all university departments FM / GP / PHC or equivalent institutions globally in **supporting & engaging** in research to provide essential evidence **for informed clinical & health policy decision-making**.

2. Promote all nations & funding bodies in **prioritising** FM / GP / PHC research & **providing competitive but protected funding**.

3. Support countries & regions in promotion & nurturing of FM / GP / PHC research in their respective nations, & **timely translation of results** into everyday clinical service.
Plenary Panel Project for Regional WONCA meetings

Lead for each of 7 world regions

**Africa:** Dr Olayinka Ayankogbe, Nigeria

Panellists from 6 countries

- How PC organised in their nation
- Facilitators & barriers that organization of their nation’s healthcare system impacts on providing effective PC

90-minutes: 6 x 10-minute presentation & 30-minutes facilitated discussion.
Plenary Panel Project for Regional WONCA meetings

- Panel material summarised for monograph
- African WONCA meeting in Accra, Ghana 18-21 Feb 2015 – Dr Henry Lawson
<Name of country>

WONCA <name of region> Meeting, <name of location>, <date>

<Name & affiliation of panellist>

University logo
New Zealand

WONCA Asia-Pacific Regional Meeting, <name of location>, <date>

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University of Auckland, New Zealand
Demographics of <country>’s population

Population
Distribution
Ethnicity
Unemployment rate
etc

Map of country
Demographics of New Zealand’s population

Population 4.4 million
Distribution >80% urban
Ethnicity 68% European, 15% Māori, 9% Asian, 7% Pacific peoples, 1% Other (2006 Census)
Unemployment rate 6.2% (Mar 2013)
Overall health system design
Overall health system design

- Strong expectation of state funding (social democratic tradition)
- Public / private mix
- Public hospitals free, universal access
- Private insurance available - offers choice of specialist & hospital care eg elective surgery
- Primary care variably subsidized – GP services mixture of state & out of pocket
- Medicines & investigations heavily subsidized
- No fault liability – Accident Compensation Corporation
How primary care is delivered in <country>
Access to primary health care in <country>
What are the benefits?
What are the drawbacks?
Impact on patient care
Growing health care burden in <country>
Ability of health system to respond to challenge
Lessons for other countries
Vice Chair, International Committee, North American Primary Care Research Group
- Multidisciplinary organisation for PC researchers
- Founded in 1972
- Welcomes members from all PC generalist disciplines & related fields, including epidemiology, behavioural sciences & health services research
Mission Statement

- Volunteer association of members committed to producing & disseminating new knowledge from all disciplines relevant to PC.
- Bi-national governance (US-Canada) with international research vision & outreach.
- Annual Meeting is premier international forum for presenting new knowledge in PC research.
- Committed to a nurturing, informative & inspiring environment for all members.
International Committee Mission & vision

- Provide strategic plan & direction to extending & supporting NAPCRG’s international outreach beyond US / Canada to both resource-rich & resource-poor nations.
- Research is core component of PC clinical practice & education in all nations.
- All nations should prioritize & fund PC research.
- PC researchers from all nations should have opportunity to present new knowledge & research advances at Annual Meeting & engage in other NAPCRG activities.
Specific objective includes...

- Reach out to countries outside US & Canada to facilitate access to NAPCRG as forum to present PC research
- Liaise with international groups where PC research highly relevant eg
  - WONCA Working Party on Research (WP-R)
  - Society for Academic Primary Care (SAPC) – UK
  - Australasian Academic Association of Primary Care (AAAPC) – Aust & NZ
  - Mexican College of Family Medicine (CMMF)
  - ?? Primafamed
Key messages to build research culture

- Research / evaluate what you are doing
- Focus on what will improve health care of your population
- Collaborate
- Disseminate
- Enjoy
Thank you for this opportunity