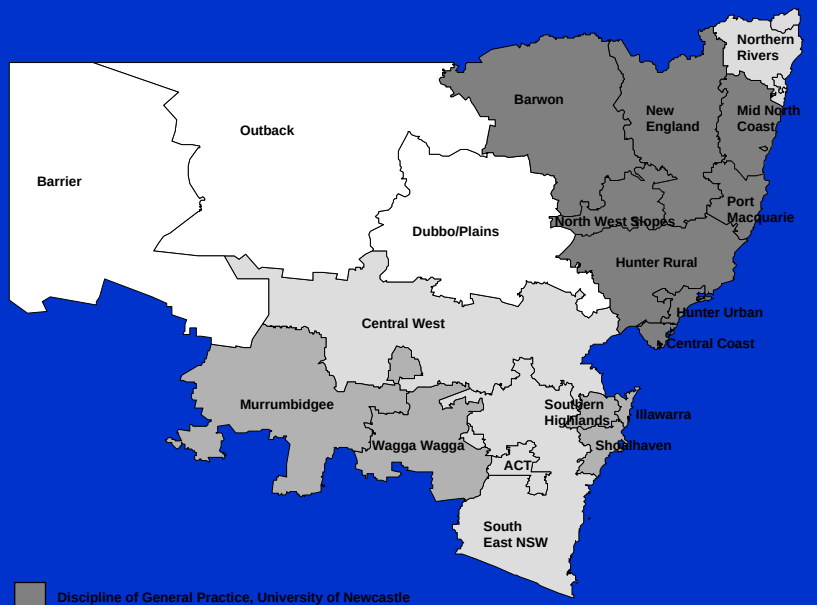
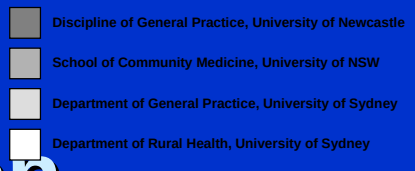
University of NSW Primary Health Care Research Capacity Building Program

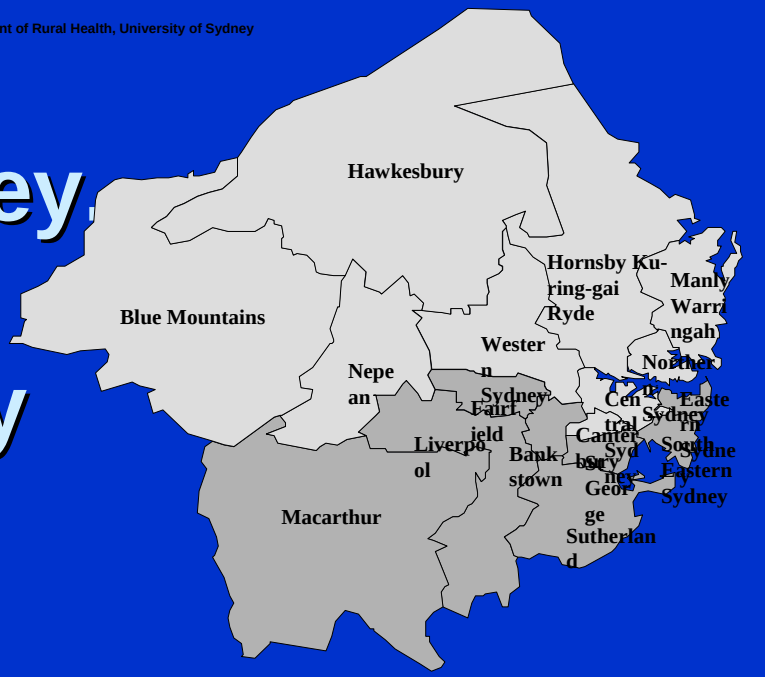
Mark Harris

Focus



- Part of NSW collaboration
- SW and SE Sydney, Illawarra and Greater Murray





Principle activities

- PHReNet
- Education
- Collaborative research

PHReNet

Primary Health Care Research Network

A structure to support research, conduct evaluation and facilitate collaborative activities

PHReNet activities

- Consultation and establishment of networks in SW/SE Sydney, Illawarra and Shoalhaven, Wagga Wagga and Murrimbigee.
- Educational activities for GPs, division staff, community health
- Agreement on research questions, project planning, funding, development, conduct of research.
- PHRENETIC (Newsletter)
- Webpages and resources on CGPIS website

Outcomes

- **Network Development**
  - 32 practices, 8 divisions, 3 community health services, 20 registrars in PHReNet North.
  - 8 practices, 2 divisions, 2 community health services in PHReNet South
  - Workshops in Wagga Wagga and Murrimbigee
- **Research projects**
  - 3 network projects
  - 3 sponsored studies
- **IT systems -**
- **Web page**
- **2 journal publications**

Educational activities

- Workshops for GPs, division staff, community and allied health
- Beginner Research Module
- Promotion of PHEC modules
- EBM workshop
- Research Bites
- Masters, PhD students (including Masters by research for academic registrars)

PHReNet
Primary Health Care Research

Research Bites

Issue 3, August 2002

How to formulate a research question

This issue of *Research Bites* looks at some important considerations in formulating a research question.

Research originates with an idea about some general problem or question. This problem or question is narrowed down to a more specific research question, which then represents the central issue being addressed.

First, it is important to distinguish between descriptive and analytical studies. Descriptive studies ask simple questions about what is going on. For example, "How many or what proportion of patients admitted to hospital with a fractured neck of femur are from a NESB?"

Analytical studies compare one or more interventions or exposures. For example, "Is it more effective to educate GPs about depression guidelines with group education sessions or practice visits?" or "Is lung cancer associated with cigarette smoking?"

For example...

An AHS Physiotherapy Department is considering the introduction of a flexibility class in addition to their back care education class as secondary prevention for patients with chronic back pain.

Using CEBM's four elements for focusing clinical questions:

1. Patient or problem
"In patients with chronic back pain..."
2. Intervention
"...would providing a flexibility class as well as the standard back care education class..."
3. Comparison intervention
"...when compared with the standard back care education class alone..."
4. Outcomes
"...lead to less pain and improved function?"

Useful resources

- Centre for Evidence Based Medicine (CEBM) at http://cebm.jr2.ox.ac.uk
- Hulley, SB & Cummings SR (ed) 1998 Designing clinical research, Williams & Wilkins, Baltimore

First steps in formulating your question

The best ideas for research come from everyday clinical problems. When an idea comes up, write it down. Let it lie for a day or two and see if it is worth pursuing. Once you can describe your idea clearly and explain why it is important, and how it could be done, you have the beginnings of a proposal. Let your idea / proposal mature for a few weeks. Talk it through with a colleague.

Focusing analytical questions

Well-built clinical questions usually contain four elements (CEBM, 2002):

- Patient or problem. Starting with your patient, ask, "How would I describe a group of patients similar to mine?"
- Intervention or exposure. Ask, "Which main intervention am I considering?"
- Comparison intervention. Ask, "What is the main alternative to compare with the intervention?"
- Outcomes. Ask "What can I hope to accomplish?" or "What could this intervention really affect?"

Once your question is defined, it is important to think about how it might be answered. Is the question specific enough? Does it suggest factors or items that can be measured? Are these reasonable and acceptable measures? The question itself may have to be modified according to the constraints of time, money and effort to undertake the project. The following criteria are very useful in this process.

Criteria for a good question

A good research question is described by the acronym FINER (Hulley & Cummings, 1998, p14)

- Feasible (adequate subjects, technical expertise, time and money, and scope)
- Interesting to the investigator
- Novel (confirms or refutes previous findings, provides new findings)
- Ethical
- Relevant (to scientific knowledge, clinical and health policy, future research directions)

Next step

If your research question is well written, it will suggest to you the most appropriate study that you could undertake to answer the question.

For further information about PHReNet contact:
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Next issue: Reviewing the literature

An initiative of the University of NSW as part of the NSW Primary Health Care Research Capacity Building Program, funded by the Commonwealth Department of Health and Ageing

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Educational outcomes

- 12 workshops attended by 135 PHC participants
- Incorporation of modules into SW Sydney vocational training program
- 3 issues of Research Bites circulated widely.
- One fellowship and 2 unfunded PhD students (one in current round)
- 4 MPH students do major projects in PHC

Collaborative research

- Network sponsored projects (Asthma, Diabetes registers, Tai Chi, access by disadvantaged to chronic disease management)
- Involvement of divisions and networks in CGPIS research projects (practice research, SNAP, health inequalities - disadvantaged communities, chronic disease)
- Involvement in SPHCM - indigenous health
- Collaborative Centres for PHC and Equity Research (inc UWS, UoW, AHS)
- Other collaborations
  - NSW PHI
  - University of Adelaide,
  - University of Melbourne,
  - Manchester, Nottingham

Issues

- Balance between grass roots development and high quality research outcomes.
- Lack of infrastructure for research - IT systems, cohorts or large scale data collation
- Lack of availability of research funding for beginner researchers
- Scarcity of some research skills (eg health economics)
- Reimbursement of GPs for contribution to research activities