
# Stream Six
# Research Program Component One

Professor Nicholas Glasgow
16 Nov 2006 Canberra

# Welcome and Introductions

- The APHCRI hub team
  - Phil Robson
    - Administrative Officer and first contact person for Stream Six
  - Elizabeth Kerr
    - Institute Manager
  - Frith Rayner
    - Program Co-ordinator: Communications and Policy Liaison
  - Karen Gardner
    - Researcher
  - Yun-Hee Jeon
    - a big welcome
- DoHA
  - Primary and Ambulatory Care Division
  - Mental Health and Workforce Division
- Stream Four
- Stream Six

# Elizabeth Kerr

- http://www.anu.edu.au/aphcri

# Overview of the day

- Establishing relationships
  - APHCRI hub personnel
  - Spokes
  - Topics
  - DoHA staff
- Clear sense of and commitment to overarching method
  - Systematic review (What do we know about….?)
  - What then are the options? (Australian context)
  - Presentation of information ‘1.3.25’
  - Resources
- Synergistic approach of spokes within topics
- Stakeholder groups
- Dates for Research Program Components 2, 3, 4 and other administrative matters

# What's in your pack?

- Stream Six (not previously in Stream Four)
  - Agenda
  - APHCRI brochure
  - Instructions for authors of 1.3.25 reports
  - Media release
  - Stream Six biographies (please send through one for each CI and any other significant contributors)
  - CHSRF Communication Notes (2)
  - Nick Mays presentation link
  - JHSR&P Supplement

# On being guinea pigs

- Four brief presentations
- A bit of information about the particular topics
- Reflections on the overarching method
- Time for some discussion

Image http://i37.photobucket.com/albums/e54/badlamb/guinea-pig.jpg

# Presentations from Stream Four

Geoff Mitchell and Jennifer Tieman

Lily Cheung

Lucio Naccarella

Lydia Hearn

# Adrian Schoo

- The NHS Centre for Reviews and Dissemination

THE AUSTRALIAN NATIONAL UNIVERSITY

# Key Emphases in Stream Six

Professor Nicholas Glasgow

# Background information – a refresher

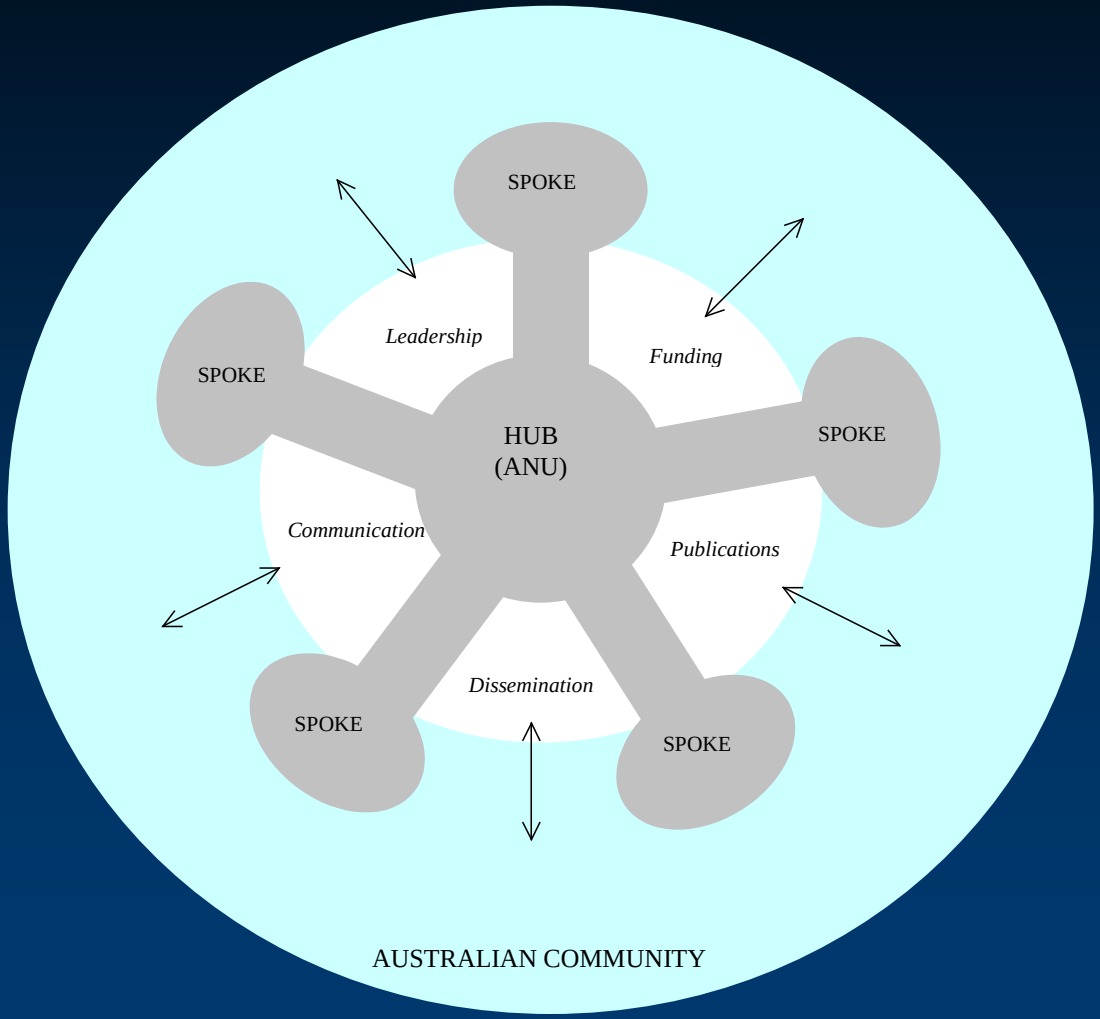
- The virtual institute
- Linkage and exchange
- APHCRI's approach to linkage and exchange

# APHCRI – a virtual institute

- "Hub and Spoke" model
  - Hub based at ANU
  - Spokes - programs of research commissioned by Institute's Research Advisory Board (RAB)

- Hub and Spokes form Institute

# Hub and Spoke Model



# ‘Not a grants program’

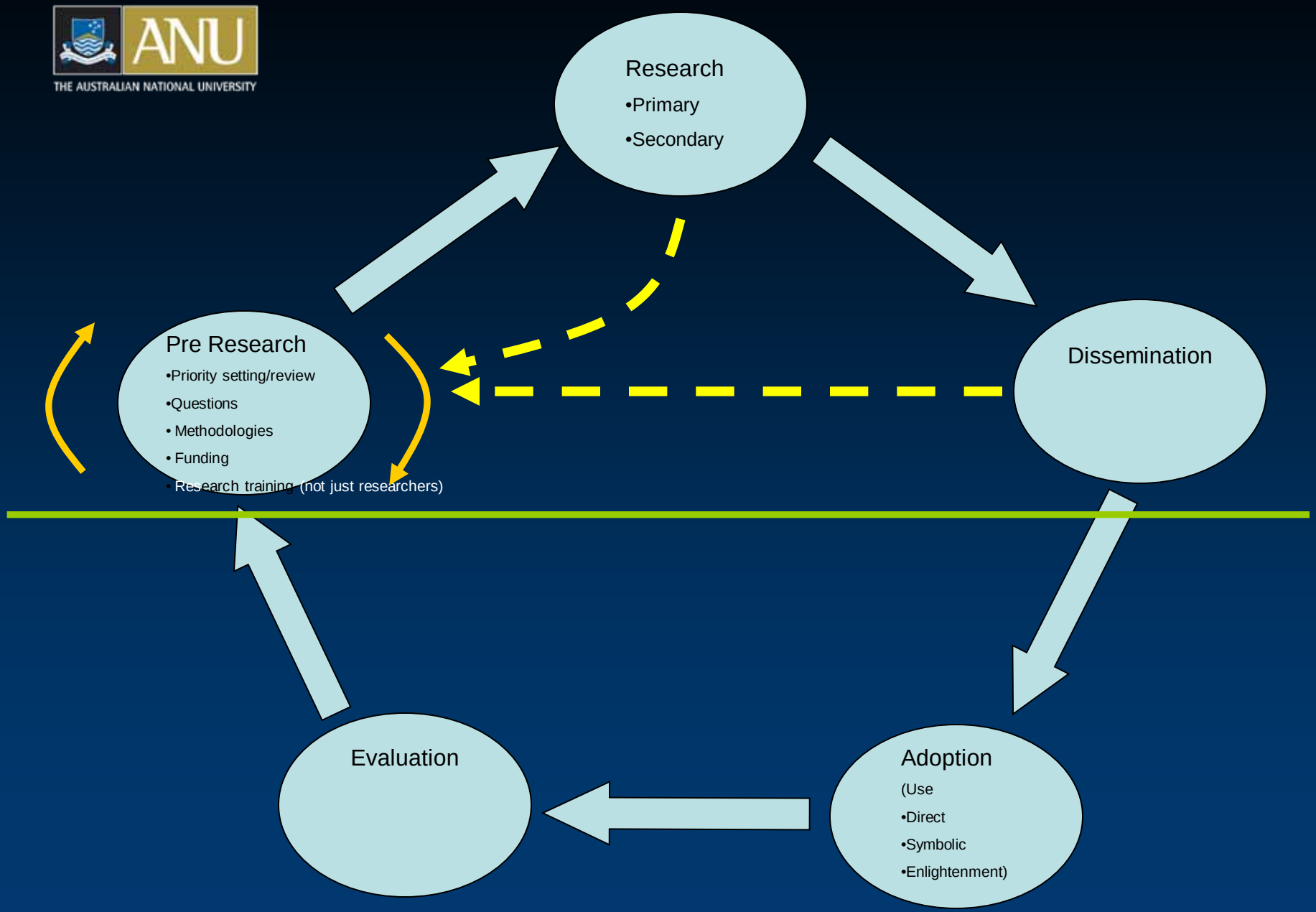
- $$ to contribute to Institute’s work program
  - Working together
  - Communicating often
  - Participating in activities as they arise
    - 4 Publications (including APHCRI Dialogue)
    - 4 Policy forums and debates
    - 4 Media activities
    - 4 Capacity building activities
    - 4 Visiting fellowships


# Linkage and Exchange

# Mission and Aims

- APHCRI's mission: "provide national leadership in improving the quality and effectiveness of primary health care through the conduct of high quality priority-driven research and the support and promotion of best practice"

- Improving the quality and effectiveness of primary health care requires the adoption of evidence into policy and practice


THE AUSTRALIAN NATIONAL UNIVERSITY
Research
•Primary
•Secondary
Pre Research
•Priority setting/review
•Questions
• Methodologies
• Funding
• Research training (not just researchers)
Dissemination
Adoption
(Use
•Direct
•Symbolic
•Enlightenment)
Evaluation

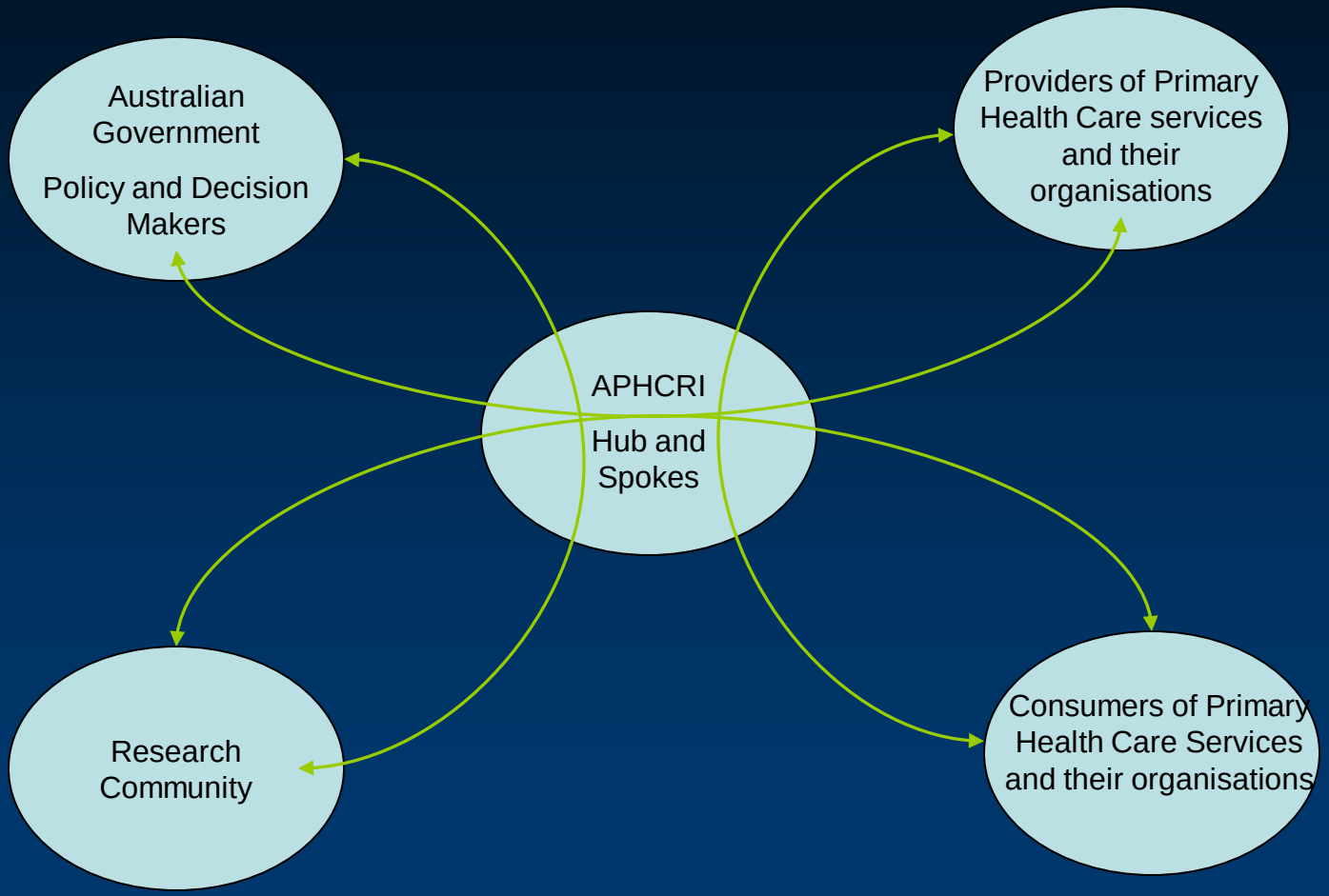
# Linkage and exchange

- "For too long implementation of health services research has been viewed as a technical exercise in better dissemination; now is the time to highlight the importance of inter-personal links and the need to embed exchange between applied research and practice within health service delivery organisations."

- Who needs to be linked?

Goering, P., D. Butterill, et al. (2003). "Linkage and exchange at the organizational level: a model of collaboration between research and policy." Journal of Health Services Research & Policy **8**: S14.

# Linkage and exchange [1]




[1] Lomas J. Using 'linkage and exchange' to move research into policy at a Canadian foundation. *Health Affairs* 2000; 19:236-40

# Communicating and communities of interest

- Policy makers and decision makers in both the Commonwealth and States/Territories;
- Providers of primary health care services and the various organisations with which they are linked;
- Researchers; and/or
- Users of primary health care services and the various organisations with which they are linked

http://www.theage.com.au/ffximage/2006/06/19/knHARRY_wideweb__470x347,0.jpg

# Linkage and exchange

- "The current definition of research needs to be expanded to include at least the following as 'fundable' stages of the research process
  - The initial consultation with decision makers (needed to inform relevant research questions);
  - The ongoing linkages (needed to maintain decision makers' interest and researchers' relevance); and
  - The post-project communication and exchange (needed to make all decision makers aware of the research results)"

C. H. S. R. F. (1999). "Issues in Linkage and Exchange Between Researchers and Decision Makers." Canadian Health Services Research Foundation (May 1999)

# Systematic review

- JHSR&P Supplement
  - Lavis

- http://www.anu.edu.au/aphcri/Presentations/Mays_Evidence%20synthesis_Jan%2006.ppt

# Linkage and exchange APHCRI style

- Communities of interest – more than two
- Research priorities/topics built through consultations with policy advisers
- Research Advisory Board includes senior policy advisors in both Commonwealth and State jurisdictions and senior members of all “communities”
- Expert Review Committee expertise across communities
- Assessment criteria for applications within Stream Six reflect emphasis on policy and provider expertise in addition to more usual “academic” criteria
- Focus on systematic review

# Linkage and exchange APHCRI style (cont)

- Funding explicitly supports researchers' participation in linkage and exchange activities (early results)
- Structured research workshops bringing policy advisors and researchers together
- Approach facilitates development of personal relationships across communities
- International experts and resources engaged
- Communication strategy developed and implemented including:
  - APHCRI Dialogue
  - APHCRI@work
  - Web site including thematic presentation of work
  - Adaptation of CHSRF 1.3.25 presentation of results

# Stream Six Activities

- Further refine the research questions
- Participate in research program components in Canberra
- Participate in meetings with DoHA (policy analysts and advisors)
- Participate, as part of APHCRI, in responding to “issues of the day”
- Deliver outcomes in a timely fashion


# Key points for Stream Six

# Overview

- The overarching method
- 1.3.25 report
- Stakeholders
- International expertise
- Administrative matters

# Overarching method

- Innovative
- Application and Evaluation of an approach to synthesis and linkage and exchange
  - "In taking forward work on methods of synthesis, there is a need to move beyond theorizing to application. Specifically, studies are now required of the experience of doing realist reviews and applying the methods proposed by Mays and colleagues" Professor Chris Ham
- Knowledge generation and decision support
- Timely production of "what is known" (de-contextualized)
- More time focused on "what then are the options" (contextualized)
- Timelines are fixed

# 1.3.25 report

- Write using plain, economical, succinct, jargon-free language aimed at an intelligent audience

- 25 can be 25!

- Production of first drafts
  - Outline of 25 by 21st Feb 2007
  - Penultimate drafts of 25 by 23rd May 2007
  - This will change as a result of key informants' input

- Peer review and editorial input
  - Important
  - Final reports required by 12th September 2007 so that they can be peer reviewed
  - Comments fed back to authors by mid October 2007
  - Final reports, addressing reviewers comments received by 14th November 2007

THE AUSTRALIAN NATIONAL UNIVERSITY

UNSW

AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE

ANU THE AUSTRALIAN NATIONAL UNIVERSITY

# A SYSTEMATIC REVIEW OF CHRONIC DISEASE MANAGEMENT

Zwar N
Harris M
Griffiths R
Roland M
Dennis S
Powell Davies G
Hasan I

## POLICY CONTEXT

Worldwide chronic disease is on the rise, placing an increasing burden on those affected, their carers and the health system. In Australia many chronic diseases are predominantly managed in primary health care (PHC) and there is a need to understand how to do this more effectively. A systematic review was conducted on chronic disease management in primary health care using the Chronic Care Model (CCM) as the conceptual framework. The key findings of the review and policy options are listed below:

## KEY FINDINGS:

- Self-management support, in particular, patient education and motivational counselling, improve physiological measures of disease as well other patient outcomes including: patient quality of life, health and functional status, patient service use and satisfaction with service and patients' knowledge about their disease.
- Delivery system design, in particular, a multidisciplinary team-approach is effective in improving physiological measures of disease and health care professional's adherence to disease management guidelines.
- Combinations of multidisciplinary-team approach and patient education and/or motivation improve physiological measures of disease and other patient outcomes.
- Decision support to health care professionals in the form of evidence-based guidelines and other educational materials and educational meetings, audit and feedback improve professionals' adherence to disease management guidelines and patients' disease measures.

For more details, go to www.anu.edu.au/aphcri

The research reported in this paper is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health and Ageing. The information and opinions contained in it do not necessarily reflect the views or policy of the Australian Government Department of Health and Ageing.

ANU COLLEGE OF MEDICINE & HEALTH SCIENCES

THE AUSTRALIAN NATIONAL UNIVERSITY

UNSW

ANU

AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE

# A SYSTEMATIC REVIEW OF CHRONIC DISEASE MANAGEMENT

Zwar N, Harris M, Griffiths R, Roland M, Dennis S, Powell Davies G, Hasan I

## POLICY CONTEXT

Worldwide the prevalence of chronic disease and their risk factors is increasing and placing more demands on health care systems and carers. Australia is grappling with how it might respond to this at a policy level.
The Chronic Care Model (CCM) provided the framework for this systematic review of the evidence of interventions for chronic disease management in primary health care. The review used the CCM as a framework for the analysis.

## KEY FINDINGS

### Self-management support

Self-management support, in particular patient education and motivational counselling are beneficial. Self-management support interventions are associated with improvements in disease measures, such as HbA1c in diabetes and other patient outcomes like: quality of life, health and functional status, patient satisfaction and health service use. There is most evidence for self-management support for diabetes and hypertension, with some evidence for arthritis and the evidence is less clear for asthma and Chronic Obstructive Pulmonary Disease.

### Delivery system design

Multidisciplinary teams are effective in improving disease measures and adherence to guidelines, particularly for diabetes, hypertension and lipid disorders. The combination of self-management support and delivery system design is particularly effective, for example, nurses acting as case managers for diabetes, combined with self-management education. The development of multidisciplinary team care, especially the role of practice nurses, reminders and proactive follow up are important in the management of chronic conditions. Many of the delivery system design interventions are designed to support self management.

ANU COLLEGE OF MEDICINE AND HEALTH SCIENCES



### Decision support and clinical information systems

Evidence-based guidelines and educational meetings for health professionals improve health professional adherence to guidelines and some patient outcomes. Health professional education alone does not improve patient health outcomes. Clinical information systems that provide audit and feedback encourage the use of decision support.
Health care organisations and/or community resources play significant roles in chronic disease management. There is no evidence about the role of these organisations in the literature.

## POLICY OPTIONS

### Self-management support

- Engage primary health care through the development of programs to support the training of GPs, practice nurses, community health, multicultural and Aboriginal health workers in chronic disease self management.
- Encourage or mandate the inclusion of patient self-management education into chronic disease care plans.
- Link the referral to allied health providers under Medicare arrangements to self-management support in general practice.
- Explore the role of Divisions of General Practice in providing self management support to general practices.
- Support self management by linking general practice with community health, multicultural health and Aboriginal health services to provide group self-management support targeted for specific ethnic groups.
- Explore how the home medicines review could be used to enable pharmacists to support self management.

### Delivery system design policy options

- Extend the financial support for practice nurses to become more involved in self management especially group programs for patients in general practice, including self-management education.
- Extend the financial support for practice nurses to provide group clinics and outreach visits for patients with chronic disease, including self-management support.
- Support training of primary care staff in a multidisciplinary team approach to management of chronic disease. Training should focus on clear roles and responsibilities of the team members.
- Link the referral to allied health providers under Medicare arrangements to facilitate multidisciplinary self management support in general practice.

### Decision support and clinical information systems policy options

- Further develop practice incentive payment (PIP) and service incentive payment (SIP) programs to encourage guideline-based chronic disease management.
- Integrate chronic disease SIP and PIP incentives so that patients are not considered as a series of separate chronic diseases.
- Encourage greater use of streamlined SIP and PIP incentives to improve quality of care.
- Encourage the use of chronic disease registers; only diabetes is supported by PIP at present. Encourage the use of registers in the provision of audit data for practices to use in quality improvement process.





- Support the use of data extraction tools and Collaboratives methodology to improve the quality and use of practice data.
- Continue to support the development and revision of disease specific guidelines.
- Develop programs to support the training of GPs and practice nurses in guideline-based chronic disease management in general practice.
- Provide support to GPs and practice staff so that they can make more effective use of clinical information systems for patients with chronic illness.

## METHOD

A systematic review of the published literature, including a review of published systematic reviews was undertaken with a focus on chronic disease management in primary care. The Chronic Care Model (CCM) was used as the conceptual framework for the synthesis of the evidence. The interventions in the included studies are described and mapped to the elements of the CCM. The elements are analysed to determine their effectiveness on outcomes such as physiological measures of disease, health professional adherence to guidelines, health status and quality of life. In addition to the systematic review there is an in depth exploration of the management of chronic disease in countries comparable to Australia, many of which based their policy on aspects of the Chronic Care Model.

THE AUSTRALIAN NATIONAL UNIVERSITY

UNSW ANU

AUSTRALIAN PRIMARY HEALTH CARE RESEARCH INSTITUTE

THE UNIVERSITY OF NEW SOUTH WALES
SCHOOL OF PUBLIC HEALTH AND COMMUNITY MEDICINE

# APHCRI STREAM FOUR: A SYSTEMATIC REVIEW OF CHRONIC DISEASE MANAGEMENT


Prof Nicholas Zwar
Prof Mark Harris
Prof Rhonda Griffiths
Prof Martin Roland
Dr Sarah Dennis
Mr Gawaine Powell Davies
Mr Iqbal Hasan


September 2006



## PREFACE

This is the final report of a systematic review conducted as part
Primary Health Care Research Institute (APHCRI) Stream Four
Stream Four was to systematically identify, review, and synthes
primary health care organisation, funding, delivery and perform
how this knowledge might be applied in the Australian context.
focussed on the management of chronic diseases in the primar

## THE RESEARCH TEAM

This review was undertaken by the Centre for Primary Health C
of Public Health and Community Medicine, University of New S
association with University of Western Sydney and University of
researchers involved included: Prof Nick Zwar (UNSW), Prof M
Rhonda Griffiths (UWS), Prof Martin Roland (University of Manc
Dennis (UNSW), Mr Gawaine Powell Davies (UNSW) and Mr Iq

## SUGGESTED CITATION

Zwar N, Harris M, Griffiths R, Roland M, Dennis S, Powell Davi
systematic review of chronic disease management. Research C
Health Care and Equity, School of Public Health and Communit
2006.


For further information contact:
Prof Nicholas Zwar
Tel: (02) 9515 8520
Fax: (02) 9515 8400
E mail: n.zwar@unsw.edu.au
Website: http://www.sphcm.unsw.edu.au


## ACKNOWLEDGEMENTS


The research team would particularly like to thank the following
contributors:
Danielle Tran – University of Western Sydney
Christine Walker – Chronic Illness Alliance
Professor Steven Douyaos – NSW Health
Megan Hansford – Australian Divisions of General Practice
Tanya Mc.ntin – Australian Divisions of General Practice
Jackie Cumming – Victoria University of Wellington, New Zealand
Robyn Spoelstra – NSW Health
Jenny Brands – La Trobe University
Shirley Goodma – La Trobe University
Jeremy Grimshaw – Cochrane EPOC Review Group
Alan Mayhew – Cochrane EPOC Review Group
Helen Nesmith – Australian Department of Health and Ageing
Graeme Roeder – Australian Department of Health and Ageing
Linda Powell – Australian Department of Health and Ageing
Michael Fisher – Australian Department of Health and Ageing
Charmaine Rodricks, Administrative Assistant, GP Unit, Fairfield Hospital
Other Stream Four spokes

FUNDING – NEEDS THE BOX UNDER ACKNOWLEDGMENT




## 3. RESULTS

### RESULTS FROM THE PRIMARY RESEARCH PAPERS

Selection process

The initial database search identified 5032 relevant articles that were published between 1990 and February 2006: the initial screening by a single reviewer reduced this to 575. This number was reduced to 399 when screening was undertaken by two reviewers through abstract reading. Verification of the full-text resulted in 212 articles being selected for quality assessment. The cut-off score for quality was selected at 11.0. Ninety articles scoring less than 11.0 were discarded. The number of articles selected for data extraction was 132 including 10 Australian studies. Data was extracted from 126 articles including 10 Australian articles. Data could not be extracted from six papers because of inadequate and/or inappropriate reporting. Screening of the reference lists of these articles included in the review provided another 19 for data extraction. In total data was extracted from 145 articles (Figure 2). In cases where there were multiple papers based on the same study, data was extracted from one paper that best matched the purpose of the review. (Included and excluded papers are detailed in Appendices 10, 11 and 12).

Fourteen (10 during the initial search and 4 during snow-balling) relevant Australian studies identified during the verification stage were included for data extraction and were not subjected to quality assessment (Figure 2).

Fig 2. Selection process of the primary research papers

Characteristics of the programs

Of the 145 studies data extracted from the majority (89%) were randomised con
trials (RCT). The next most common study design was controlled before and aft
(CBA) (10.3%). There were two controlled clinical trials (CCT) and one interrupte
series (ITS). Four descriptive Australian studies were also included to provide
additional contextual information.

The majority (64.1%) of the studies were based at primary care settings, 23 in
community based care and 12 in managed care organisation. Over half of the st





## DECISION SUPPORT AND CLINICAL INFORMATION SYSTEMS

Decision support and clinical information systems will be considered together as there was considerable overlap in the interventions used. Overall both decision support and clinical information systems improved health professional adherence to guidelines for a range of chronic disease in primary care, particularly diabetes. Many of the interventions involved the use of disease specific guidelines and the incorporation of these guidelines into computer systems to provide prompts and feedback on performance. Health professional education alone did not improve patient outcomes.

Disease specific guidelines are already in use in Australia, encouraged by financial systems such as the SIP and PIP payments to general practitioners on completion of condition related tasks. However, uptake of these incentives has not been universal amongst practitioners, partly because the system is complex (42) and further complicated by the fact that they are disease specific rather than providing an holistic approach which may make it difficult to manage patients with several chronic diseases.

General practices in Australia use a variety of computer software and the quality of the information entered varies. In order to manage chronic disease effectively and act on performance feedback, there is a need for complete and accurate patient data. This may be difficult for small practices or solo practitioners who may not have the support to update the information.

Decision support policy options

- Further develop practice incentive payment (PIP) and service incentive payment (SIP) programs to encourage guideline-based chronic disease management.
- Integrate chronic disease SIP and PIP incentives so that patients are not considered as a series of separate chronic diseases.
- Encourage greater use of streamlined SIP and PIP incentives to improve quality of care.
- Encourage the use of chronic disease registers; only diabetes is supported by PIP at present. Encourage the use of registers in the provision of audit data for activities to use in quality improvement process.
- Support the use of data extraction tools and Collaborative's methodology including Plan/Do/Study/Act (PDSA) cycles to improve the quality and use of practice data.
- Continue to support the development and revision of disease specific guidelines.
- Develop programs to support the training of GPs and practice nurses in guideline based chronic disease management in general practice.
- Provide support to GPs and practice staff so that they can make more effective use of clinical information systems for patients with chronic illness.

## HEALTH CARE ORGANISATION AND COMMUNITY RESOURCES

There was no experimental evidence for the effect of health care organisation or community resources on the management of chronic disease. Interventions that address these elements such as incentives and support for astringent change are often facilitators or barriers to the success of interventions such as self-management support or delivery system design. Health care organisation and community resources are also specific to the healthcare system that the CCM is operating in but it would be

# CHSRF Resources relevant to writing

- http://www.chsrf.ca/knowledge_transfer/pdf/cn-1325_e.pdf
- http://www.chsrf.ca/knowledge_transfer/pdf/presentation_e.pdf

# Stakeholders

- Identification
  - This afternoon create list
- Coordinated approaches
  - Between spokes and across spokes
- Centralised approaches
  - Invitations to the research program components

# International expertise

- Judith Smith
  - Feb meeting

- GP & PHC meeting Sydney 22nd – 25th May 2007
  - Pre-conference workshop
    4 Prof Bonnie Sibbald

  - Key note speakers include Prof Chris van Weel and Prof Nicky Britten

# Administrative matters

- E-mail to Phil Robson
  - Names, titles, positions, brief bio and e-mail contact details for all researchers/associates involved in spoke

- Confirm attendance at meetings as soon as you are able for venue confirmation and catering purposes

THE AUSTRALIAN NATIONAL UNIVERSITY

# Any Questions?