Lessons from Canada on evaluation, research impact and population health

Alan Owen
CHSD

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The question in Canada (both Calgary and Montreal) was:

That is all very busy, but so what?

The answer depends on how we see health services research:

Investigating *wicked problems*

recommending *practical* solutions and

deriving lessons relevant to *policy*
Calgary and Montreal

- Presentation for Health and Society Seminar
- Population Health Intervention Research Centre, University of Calgary – A nice bunch of projects … but so what? Lessons from 15 years of review and evaluation projects and routine outcome measurement
- Meetings with Penny Hawe, Alan Shiell and Health Economists and Carol Adair
- Montreal - Louise Potvin – Lea Roback Centre
Population Health Intervention Research Centre

Mission = provide the evidence that policy makers need to put more resources into prevention.

One of seven research centres established in 2004 by the CIHR’s Institute of Population and Public Health under its Centres for Research Development program.

The Centre is also the Calgary hub of the CIHR funded International Collaboration on Complex Interventions.

Research in the Centre is aimed primarily at improving the effectiveness of interventions designed to improve population health - under four themes: theory, methods, ethics, and economics.
Unpacking Health Services Research (HSR)

- Multidisciplinary research that aims to improve the health services and social support that patients and the community receive.

- The audience for HSR includes not only other academics but also consumers, providers, managers and politicians
  - Means creating opportunities for partnerships and funding
  - Allowing us to blur the usual academic distinction between ‘investigator-driven’ and ‘priority-driven’ research.
Health Services Research (HSR)

- Generalist and **applied** rather than 'basic' research
- Covers the **spectrum** from acute to palliative to prevention
- Uses multiple perspectives and **mixed methods** for complex interventions – main focus on **services** (costs and outcomes)
- Methods are review & evaluation: better quality, safer care, better accessibility, improved efficiency and better outcomes
- Latest developments (2009) are in **design** and clinical **terminologies** and building strengths in **evaluation** and **population** and public health
Common ground with population health - what drives the need for health care?

- A recurring theme in CHSD research since 1993
  - Standardised measures of function in rehab, pall care and community care – especially when used as routinely collected outcome measures

- Complex interventions - more to ‘need’ than a medical diagnosis:
  - Why do kids get obese?
  - Why do people turn up in emergency departments?
  - Why can one older person with chronic heart disease and diabetes live independently in the community, but another can’t?
  - Why does one person with cancer need oncology, but another need palliative care?
How we look at our own impacts and outcomes

- Getting paid for projects delivered on time and getting more work as a result – but do they get used?
- Governments and policy makers will continue to devise strategies (e.g. media campaigns, models of care) on the basis of other considerations.
- Academic publications – but self-funding means it is hard to find the time.
- And the problems we investigate continue to increase each year, and that is well beyond our control.
Examples of standardising routine measures …

- National Partnership Agreement on Hospital and Health Workforce Reform (2009) Schedule C (Sub-acute care – C5) (p.24 - commence from 2009) “Agreements … in working with national data collection agencies (such as AROC and PCOC)”

- Community care assessment HACC functional dependency items + tools in common use (based on national work plus Queensland and NSW)
How to go forward? e.g. capacity building

- Secondments to and from the local Area Health Service Planning Unit – mainly in applied statistics.
- Mentoring program for new researchers and some limited support (time out from projects) for completing higher degrees.
- Staff seminar series – presentations on project results and methods, rehearse conference papers, visiting outside experts.
- Lunch time sessions - introduction to various statistical packages.
- Evaluation and Population Health special interest groups.
- Annual Reports and our planning day are used to review and shape overall Centre priorities.
Examples of knowledge transfer

- Victorian Child and Adolescent Monitoring System (VCAMS) – Annual Update of the Evidence-based Strategies
  

- DADHC research catalogue – outcome measures and social isolation projects
...Answering the ‘so what?’ question

- We can show we have measurable improvements in *standardisation* and *routine clinical monitoring systems*
  - AROC and PCOC are national systems – clinician and agency buy-in
  - Intake and assessment and priority rating systems are in common use – Home and Community Care Functional Screen in HACC Program MDS

- We see our evidence-building work hosted on the sponsors’ websites – kids Best Start/VCAMS, carers, dementia outcomes, community care

- Measuring *knowledge transfer* is the continuing challenge
  - Universities are changing systems for measuring research quality
  - Traditional publication output is necessary, but not sufficient
  - Web-based systems are evolving much faster than we are!
Research Impact Measurement

- Carol Adair has drawn our attention to the 2005 Canadian Institutes for Health Research (CIHR) report - highlights the usefulness of a framework developed by Buxton et al (2004) called the Payback Model - includes five categories or domains of impact.

- Participants at a NZ conference in 2005 also favoured this framework.


Categories to Measure the Impact of Health Research

Knowledge production
These are contributions to knowledge from a research project or a body of research involving multiple projects. Knowledge production is usually measured through contributions to scientific publications and patents or invited presentations (e.g. conferences) but includes knowledge fed more directly to users through commissioned reports etc.

Research targeting and research capacity
These are benefits to future research activity. This includes the use of research information to improve targeting of future research; individual and group development of research skills and research capacity; development of the capability to use existing national or international research.
Informing policy and product development

These are clinical and administrative benefits, including the development of informed information bases upon which to make decisions, and the application of research findings in policy development (at all levels of policy). This category also includes development of clinical practice guidelines and benefits for product or process development where research findings feed into commercial decisions and developments.

Health and health sector benefits

These are improvements in life expectancy and quality of life through advances in prevention, diagnosis or treatment made possible by research. These include increased efficiency of service organisation, improved equity in the health sector.
Broader economic benefits

These are benefits to the economy that result from health research. These benefits can include economic returns from commercialization and contributions to the economy from improvements in workforce health.


- Economics of Population Health Interventions:

Implications

This framework is well-suited to CHSD and provides a model for how we can more systematically measure the impact of our work including what might be attributable to CBIG, should we be successful in our application.

The framework also implies the importance of securing Health Economics expertise either by an alliance, shared or a directly CHSD-funded position. The focus would be ideally on the economics of health services as part of evaluating new or existing models of care and include an interest in measuring the ‘upstream’ side including prevention and benefits outside the health sector.
CHSD as a complex intervention?

Lessons from evaluation and measurement

Patient/client level

Provider level

System level
Conclusions after Calgary and Montreal

- **Research Impact Measurement** needs a specific focus
- Develop evaluation of *Complex Interventions* as new specialty
- Combining these two with an emphasis on the *economics of prevention* gives a basis for *population health intervention research*
- Most powerful tools:
  - implies a longitudinal cohort study with kids – to get a good *denominator*
  - Illawarra *unique identifier* is key to data linkage
  - Health economics – focus on *upstream investments*
- Most useful alliance is with *public health* authorities – e.g. Lea Roback
  Montreal Centre - focus on health inequalities + 4 Universities
Initial reference list - following up useful leads...


3. UK Medical Research Council (2008) Developing and evaluating complex interventions [www.mrc.ac.uk/complexinterventionsguidance](http://www.mrc.ac.uk/complexinterventionsguidance)

Economics of Population Health Interventions


