



An approach to measuring the impact of initiatives implemented to improve health outcomes: The EXPert PANel Decision (EXPAND) Method

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Outline

- Study overview
- EXPert PANel Decision (EXPAND) Method Panel rationale
- EXPAND Method
- Limitations and strengths of the EXPAND Method

Study overview

- Determinants of effective clinical networks
- NHMRC partnership grant ID: 571447 funded by the NHMRC and Agency for Clinical Innovation
- To examine factors that contribute to the success of clinical networks

Research team

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Agency for Clinical Innovation Peter Castaldi, Carol Pollock, Hunter Watt, Kate Needham, Nigel Lyons

University of Sydney Jonathan Craig*, Elizabeth Elliott

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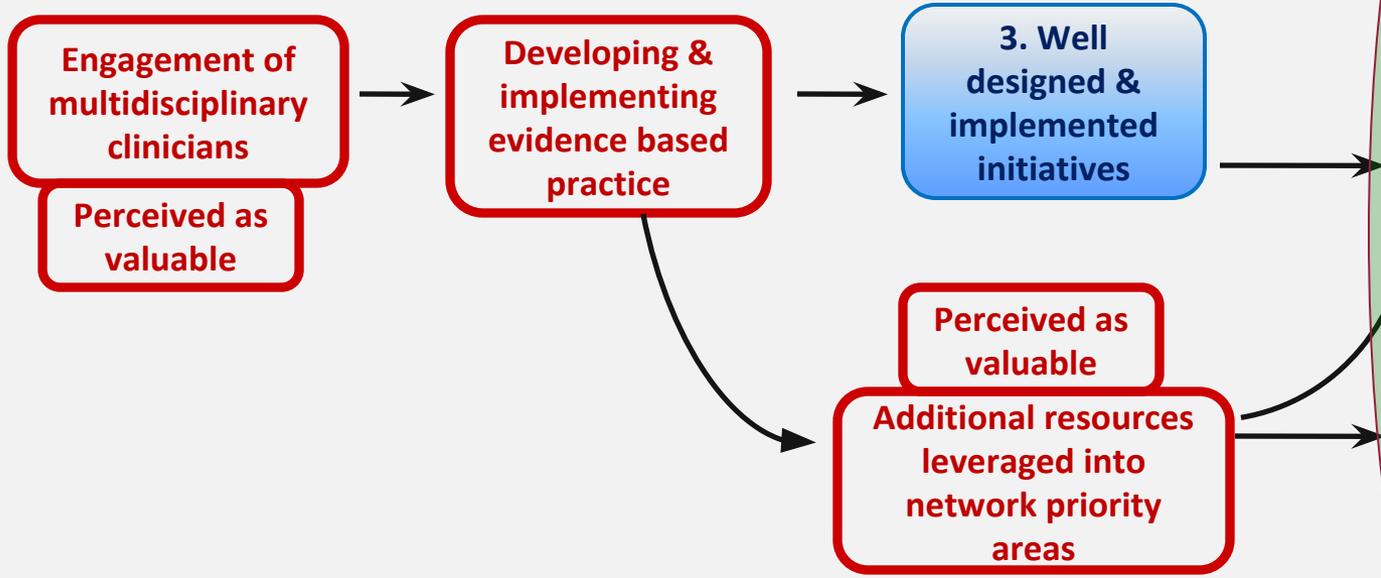
University of California, Los Angeles (UCLA) Elizabeth Yano*

* Authors of the EXPAND Method paper that is in preparation

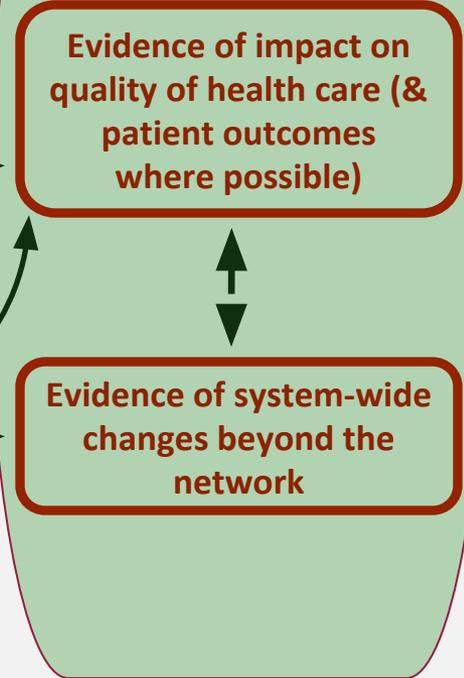
Study design

- Retrospective analytic study (2006 – 2009)
- Sample: 19 Clinical Networks and 600 networks participants and stakeholders
- Methods:
 - Record review
 - Web-survey
 - Semi-structured interviews
 - Expert panel

Intermediate outcomes



End outcomes



Explanatory factors which may be included in models:

- 1. The external context of the organisation
- 2.1. Internal organisation - *Clinical leadership*
- 2.2. Internal organisation - *Engagement of clinicians*
- 2.3. Internal organisation - *Internal management*

Clinical Networks

Aged Health

Brain Injury Rehabilitation

Burn Injury

Cardiac

Gastroenterology

Gynaecological Oncology

Ophthalmology

Radiology

Blood and Marrow Transplant

Home Enteral Nutrition

Renal

Stroke

Transition Care

Urology

Nuclear medicine

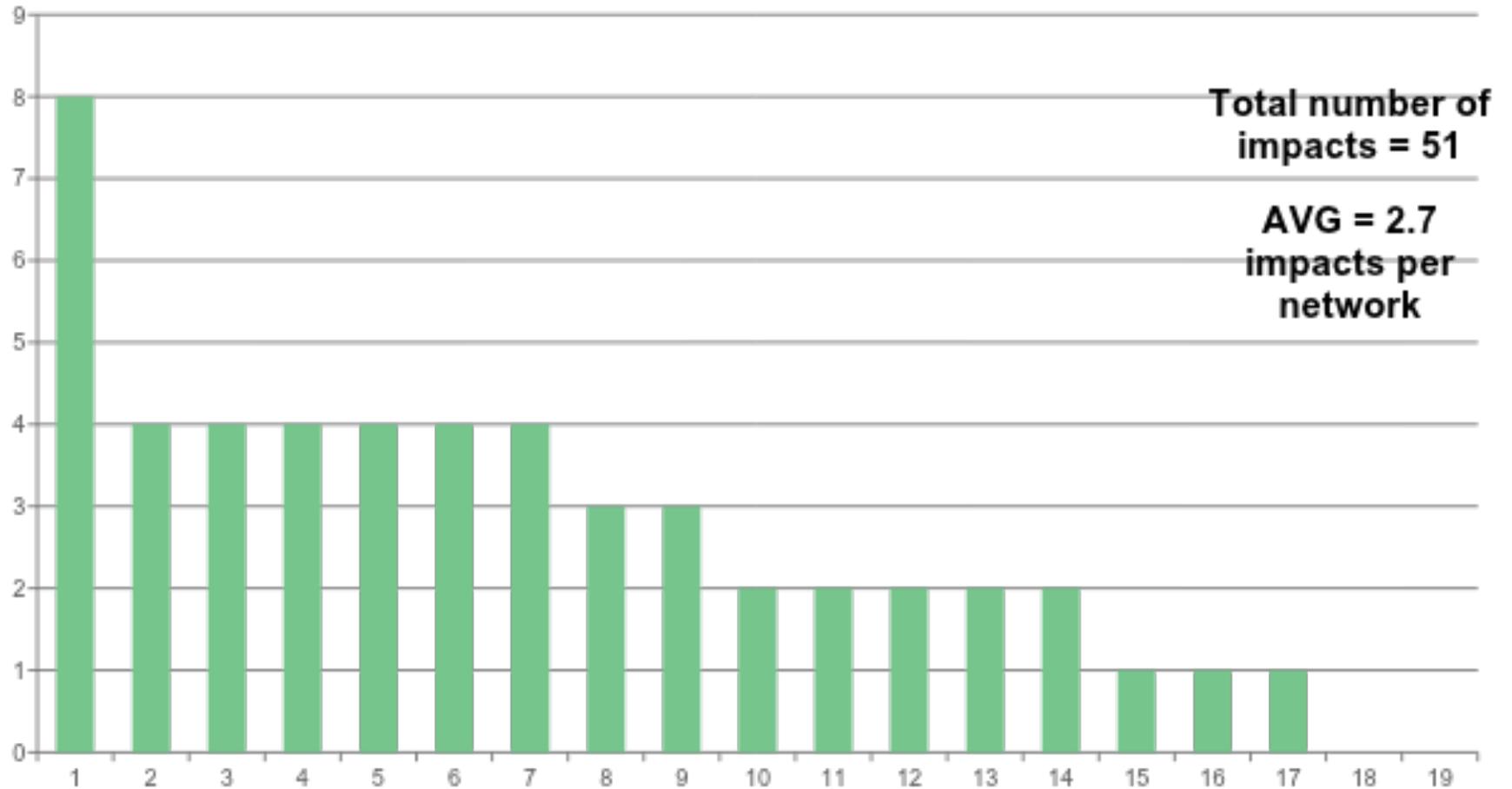
Neurosurgery

Endocrine

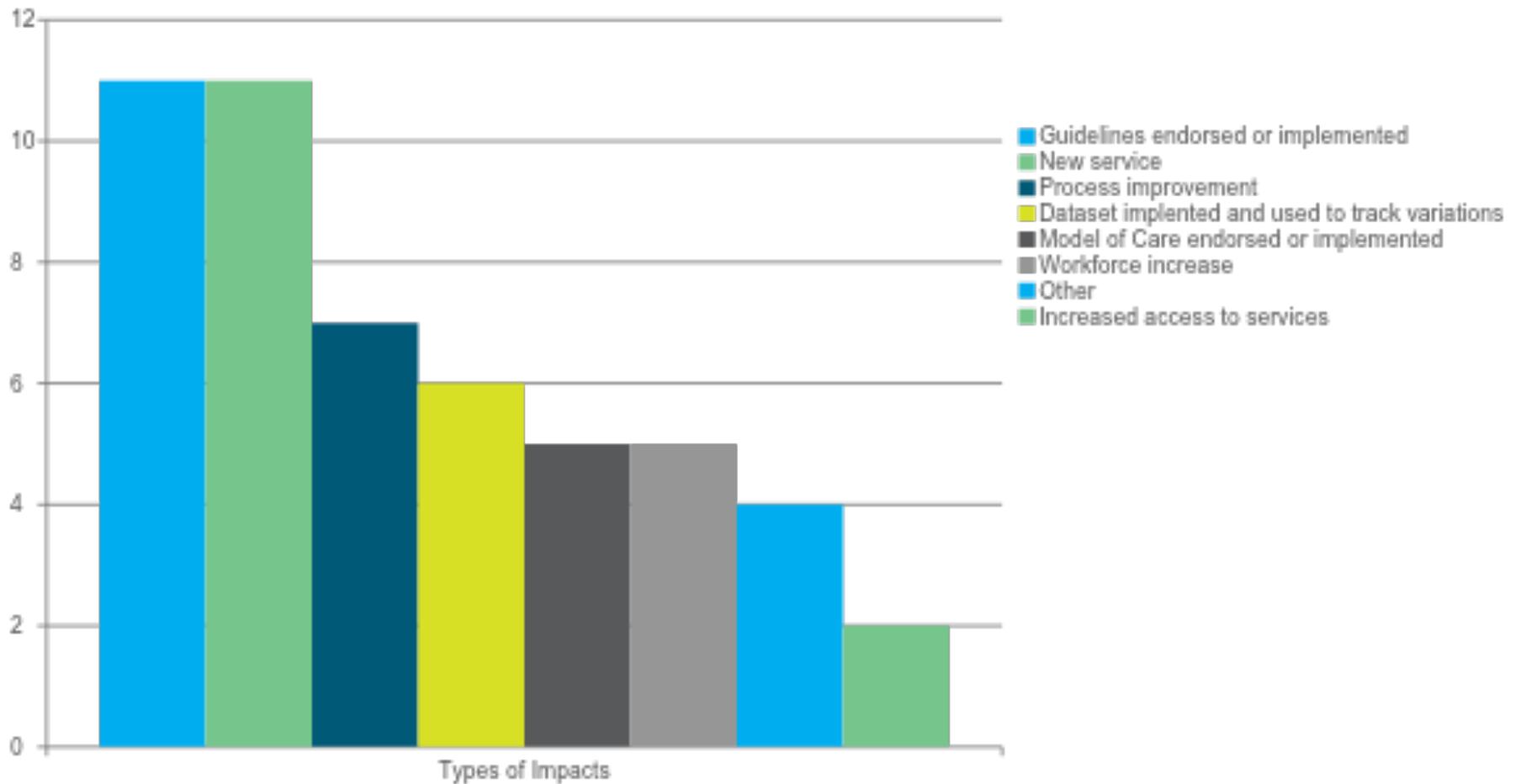
Spinal Cord Injury

Respiratory

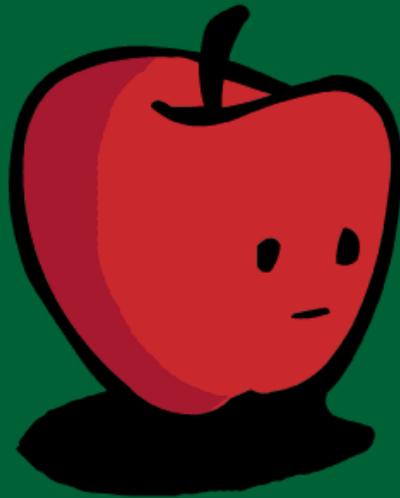
Number of Network Impacts



Type of Impacts



Well, we're both fruit.



EXPAND Method rationale

- A challenging part of the project was to assess the impacts of Networks because the 19 Networks in the study vary in clinical focus (e.g. renal medicine, ophthalmology and urology) and quality improvement initiatives differ in focus.
- The study used an innovative application in the Australian context of the systematic expert consensus method developed by RAND/UCLA and the US Department of Veterans Affairs.
- The EXPAND Method provides a structured means of interpreting the information available and assessing 'success' by using expert judgement in the absence of a gold standard method to rate Network impact.

A comparison of three Expert Panel methods

	RAND/UCLA appropriateness method	VA method	EXPAND Method
Purpose	Expert consensus on clinical indications	Decision-making consensus process within a national healthcare system	Impact assessment of quality improvement initiatives
Judgement	Expert opinion with a systematic review of the scientific evidence	Consensus process informed by literature, data and expert opinion	Independent expert rating of the evidence of initiative impact, a moderated meeting of members and a second rating of evidence
Outputs	Indications of appropriateness that can be used as the basis for review criteria and practice guidelines	Appropriateness of quality improvement initiatives; organisational quality improvement priorities; quality of care impact; preferences for adaption of evidence based activities	Rating of impact on quality of care and system-wide change

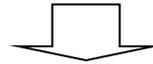
Development of methods

Selection and recruitment of EXPAND Method members.

Collection of information about each impact and the associated evidence.

Collation of evidence and creation of a summary report for each Network to assist members.

Piloting of the procedure and organisation of the material. Two network reports rated and discussed.

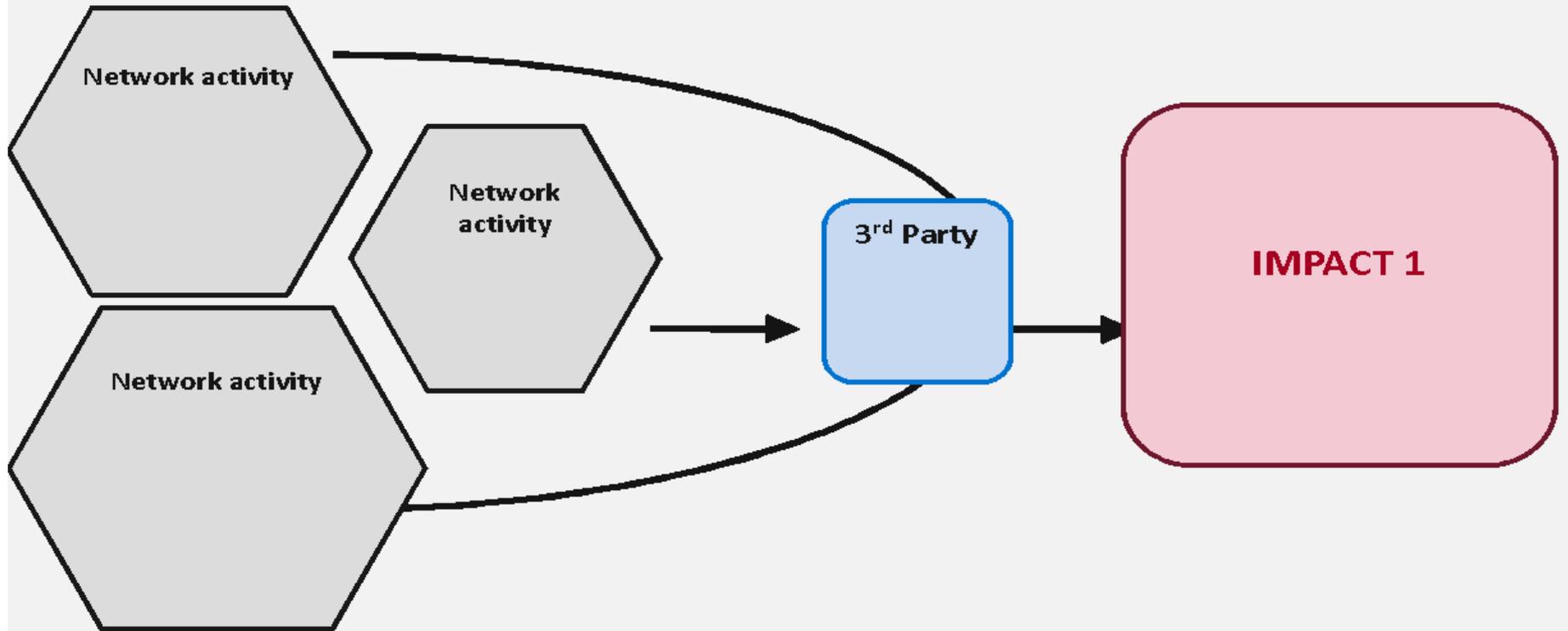


Working with the EXPAND Method members

Briefing conference call for members to provide background information and instructions. Members provided with example Network reports to ascertain if information supplied will be suitable (i.e. sufficient detail etc.) for rating and whether there needs to be any further guidelines for the panel when rating.

Members rate all Networks over a 1 month period and supply ratings to the Sax Institute 1 week before the EXPAND Method meeting.

Collation of ratings and preparation for the EXPAND Method meeting.



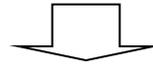
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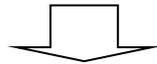
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Collation of ratings and preparation for the EXPAND Method meeting.

EXPAND Method meeting

Moderated meeting to discuss ratings of the importance of the impacts of each network. The importance of each impact was rated a second time by each member following the discussion.

Reflections session convened by Chair to consider: characteristics of high vs moderate vs low impacts; key ingredients to optimise the impact of Networks; the conceptual model; quality of evidence collected by the Networks; the EXPAND Method; recommendations for Networks; and recommendations for the study investigator group for future research.



Post-meeting

Analysis of ratings.

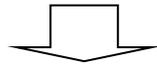
Intra-Correlation Coefficient (ICC) to measure the level of agreement between EXPAND Method member ratings of network impacts

	Pre-meeting ratings (ICC)	Post-meeting ratings (ICC)
Quality of Care	0.36	0.84
System-wide Change	0.40	0.89

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Limitations and strengths of the EXPAND Method

- Validity and reliability
- Validation sub-study
- Qualitative sub-study
- Applicability to measurement of implementation initiatives

REFERENCES

- Brook, R.H., et al., *A method for the detailed assessment of the appropriateness of medical technologies*. Int J Technol Assess Health Care, 1986. **2**(1): p. 53-63.
- Fink, A., et al., *Consensus methods: characteristics and guidelines for use*. Am J Public Health, 1984. **74**(9): p. 979-83.
- Gagliardi, A.R., et al., *Development of quality indicators for colorectal cancer surgery, using a 3-step modified Delphi approach*. Can J Surg, 2005. **48**(6): p. 441-52.
- Haines, M., et al., *Determinants of successful clinical networks: the conceptual framework and study protocol*. Implement Sci, 2012. **7**: p. 16.
- McGory, M.L., et al., *Developing quality indicators for elderly surgical patients*. Ann Surg, 2009. **250**(2): p. 338-47.
- McInnes et al. A qualitative study of stakeholder views of the conditions for and outcomes of successful clinical networks BMC Health Services Research 2012. **12**:49.
- Milat et al., *Policy and practice impacts of applied research: a case study analysis of the New South Wales Health Promotion Demonstration Research Grants Scheme 2000 – 2006* Health Res Policy Syst 2013. **11**:5.
- NSW Agency for Clinical Innovation: *What have the clinical networks achieved and who has been involved? 2006-2008*, The Sax Institute, March 2011.
- Rubenstein, L.V., et al., *Understanding team-based quality improvement for depression in primary care*. Health Serv Res, 2002. **37**(4): p. 1009-29.
- Shekelle, P., *The appropriateness method*. Med Decis Making, 2004. **24**(2): p. 228-31.
- Shekelle, P., M.R. Chassin, and R.E. Park, *Assessing the predictive validity of the RAND/UCLA appropriateness method criteria for performing carotid endarterectomy*. Int J Technol Assess Health Care, 1998. **14**(4): p. 707-27.
- Washington, D.L., et al., *Reliability of clinical guideline development using mail-only versus in-person expert panels*. Med Care, 2003. **41**(12): p. 1374-81.
- Williamson, A. et al., *Supporting Policy In health with Research: an Intervention Trial (SPIRIT)—protocol for a stepped wedge trial* BMJ Open, 2014. **4**(7).