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Informing implementation and delivery considerations from systematic reviews. What kind of reviews may be useful? Experiences from the EPOC review group within the Cochrane Collaboration.



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Cochrane Effective Practice and Organisation of Care Group

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- EPOC satellites funded by:



- Rx for Change funded by:



- Jeremy Grimshaw holds a Canada Research Chair in Health Knowledge Transfer and Uptake

Cochrane Effective Practice and Organisation of Care (EPOC) Group

- EPOC aims to undertake systematic reviews of interventions to improve health care delivery and health care systems including:
 - Professional interventions (e.g. continuing medical education, audit and feedback)
 - Financial interventions (e.g. professional incentives)
 - Organisational interventions (e.g. the expanded role of pharmacists)
 - Regulatory interventions

Ballini, Bero, Durieux, Eccles, Flodgren, Grimshaw, Gruen, Lewin, Mayhew, Munabi-Babigumira, O'Connor, Oxman, Pantoja, Paulsen, Shepperd, Tavender, Zwarenstein (2011). *Cochrane Library*.

Cochrane Effective Practice and Organisation of Care (EPOC) Group

Progress to date - register and reviews

- 72 reviews, 49 protocols
- Overview of reviews (Bero 1998, Grimshaw 2001)
- Enriched bibliographic databases
 - Rx for Change
 - Health Systems Evidence

Implementing change in health care systems

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To find information on interventions target

s:

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Identified, appraised and summarised over 300 systematic reviews of professional behaviour change interventions

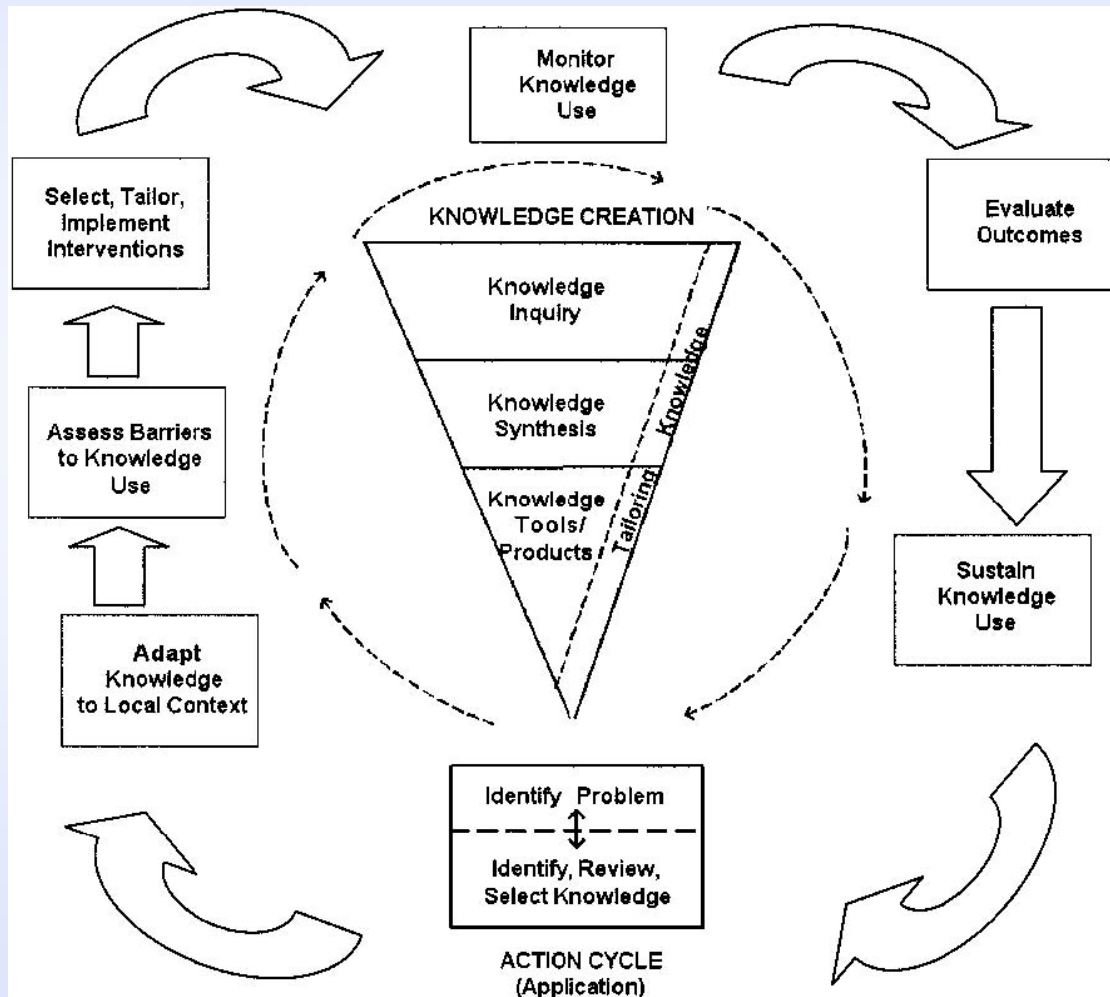
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Intervention	# of trials	Median absolute effect	Interquartile range
Audit and feedback (Jamveldt 2006)	118	+5%	+3%, +11%
Educational meetings (Forsetlund 2009)	81	+6%	+3%, +15%
Academic detailing (O'Brien 2007)	69	+5% (prescribing)	+3%, +7%
On screen reminders (Shojania 2009)	28	+4.2%	+1%, +19%
Opinion leaders (Flodgren 2011)	12	+10%	-6%, +25%

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- Wide range of interventions that are effective under some circumstances, none effective under all circumstances.
- Program design should be tailored based upon consideration:
 - ‘Diagnostic’ assessment of barriers
 - Understanding of mechanism of action of interventions
 - Empirical evidence about effects of interventions
 - Available resources
 - Practicalities, logistics etc

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Knowledge to Action cycle

Suggests that *planned process* more likely to achieve practice changes

Graham ID et al. Lost in Knowledge Translation: Time for a Map? *Journal of Continuing Education in the Health Professions*, 2006

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- Current reviews summarise range of effects associated with different types of intervention but are often silent on issues such as scaling up and sustainability
- This is largely a result of lack of consideration of these issues and poor reporting in primary studies
- **Important not to shoot the messenger!**

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Printed educational materials: effects on professional practice and health care outcomes (Review)

Furber AR, Légaré F, Turco L, Gritschew J, Harvey E, McGowan JL, Wolf FF



This is a preprint of a Cochrane review prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2009, Issue 2

<http://www.bes.cochrane.org>



Printed educational materials: effects on professional practice and health care outcomes (Review)
Copyright © 2009 The Cochrane Collaboration, published by John Wiley & Sons, Ltd.

- 23 studies included
- 6 RCTs
- Median effect +4.3%,
- Absolute range
-8.0% to +9.6%

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Potential sources of heterogeneity

Change in content

- evidence-based versus other printed educational materials
- tailored printed educational materials versus non-tailored printed educational materials (e.g., personalised, generic)
- Change in source
 - endorsed by official organization versus endorsed from other source
 - endorsed versus not endorsed
- Change in format
 - Change in appearance, e.g., glossy versus academic
 - Change in length, e.g., brief updates versus full journal article
- **Unable to test any of these hypotheses due to poor reporting in primary studies**

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- We undertook additional work to identify published process evaluations and interview authors
- 6 studies had secondary papers reporting process evaluations
- 18 authors contacted
- Conservative estimate of additional time required was approximately 30 hours per study
- **Seeking information from process evaluations and contact with authors did not substantially change the results of the systematic review.**

Summary

- Compelling evidence that it is possible to change professional behaviour to improve quality of care
- No Magic Bullet – most interventions effective under some circumstances, none effective in all. Need for tailoring of interventions to barriers
- EPOC has completed suite of systematic reviews of dissemination and implementation intervention BUT they are less informative about scalability and sustainability, largely due to lack of attention to these within primary studies

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