Implementing evidence-based practices in reproductive health

Metin Gülmezoglu M.D., Ph.D
Department of Reproductive Health and Research
World Health Organization

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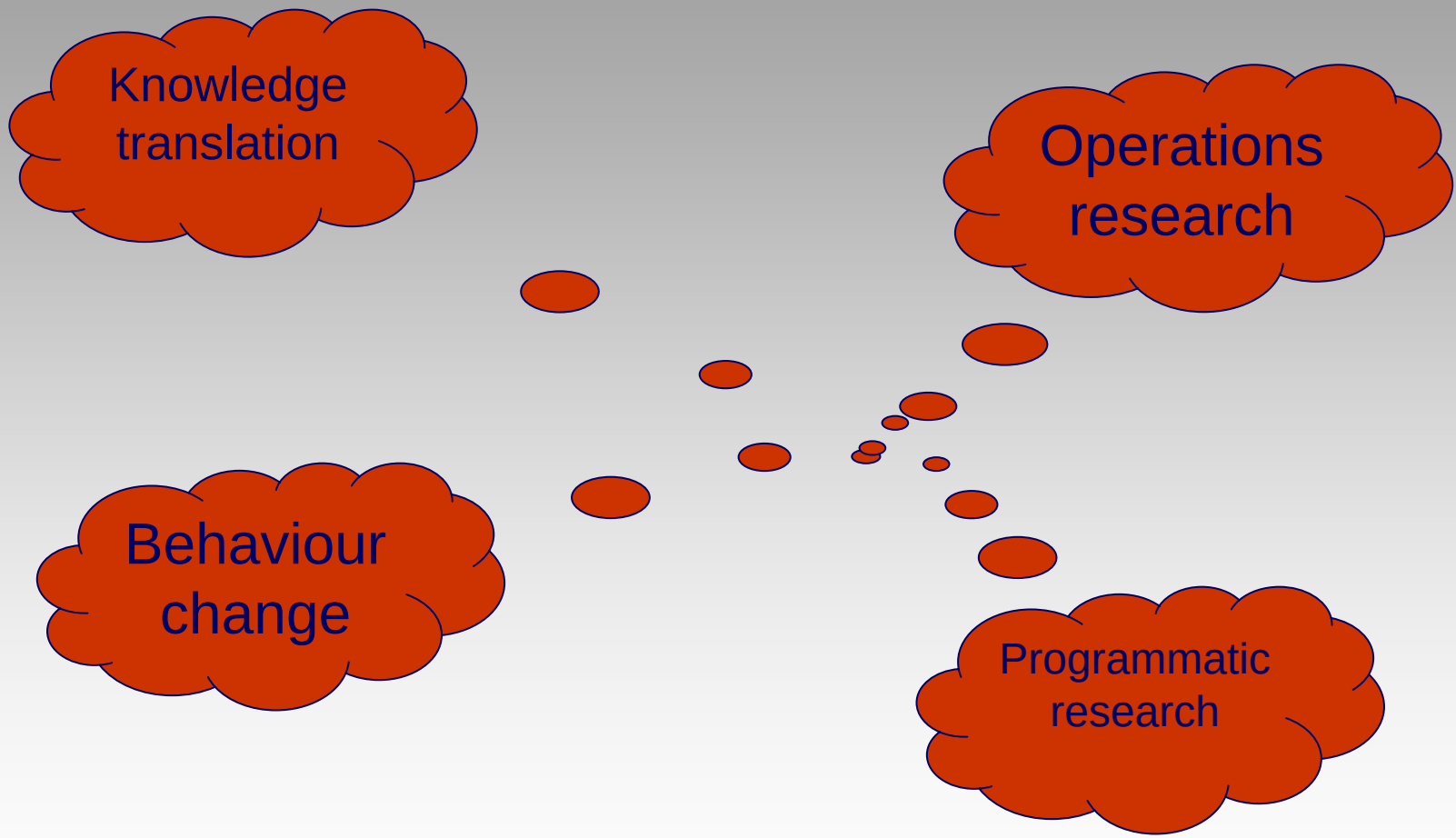
Implementation research – is it something new?



Usually indicates getting practices, activities proven to be beneficial (in previous effectiveness research) into use

Background

- Clinical research is consistently producing new findings that may contribute to effective and efficient patient care
- The findings of such research will not change population outcomes unless health services and health care professionals adopt them in practice.

Grimshaw, Ward, Eccles. *Oxford Handbook of Public Health.*

Background

- Consistent evidence of failure to translate research findings into clinical practice
  - 30-40% patients do not get treatments of proven effectiveness
  - 20–25% patients get care that is not needed or potentially harmful
- Increased policy interest in knowledge translation activities to promote evidence based practice

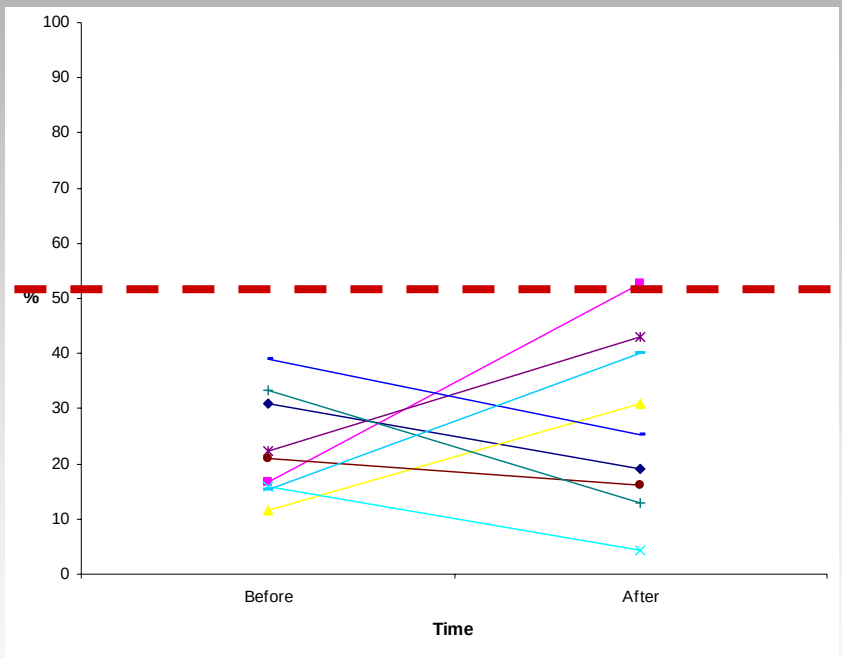
Schuster, McGlynn, Brook (1998). *Milbank Memorial Quarterly*

Grol R (2001). *Med Care*

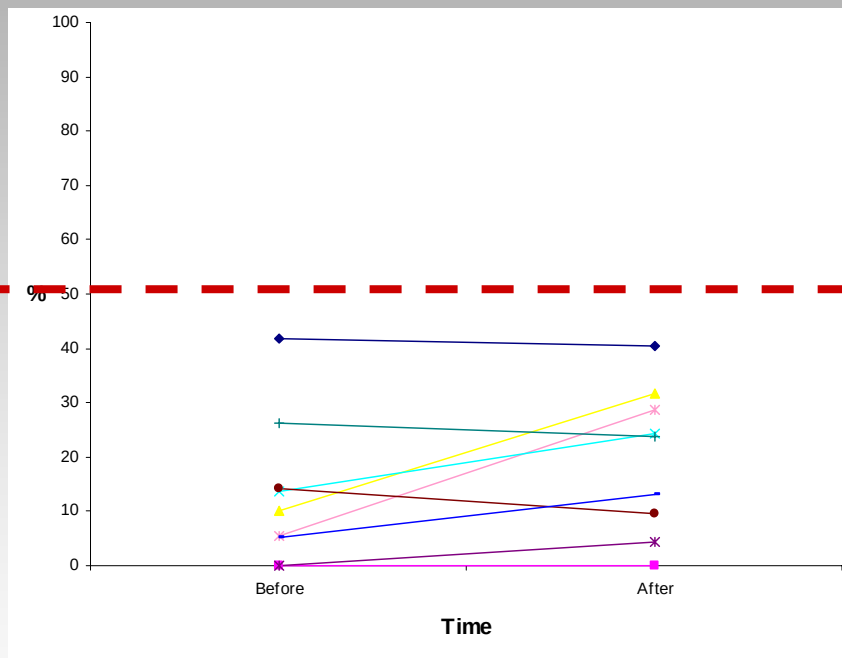
Information management is insufficient

- Health care professionals still have limited time to read
- Health care professionals only recognize a minority of information needs
- Health care professionals need to make multiple decisions daily
- Decisions are largely based on heuristics (‘rules of thumb’)
- Health care professionals work in chaotic surroundings without built in redundancy

Corticosteroids before 34 weeks

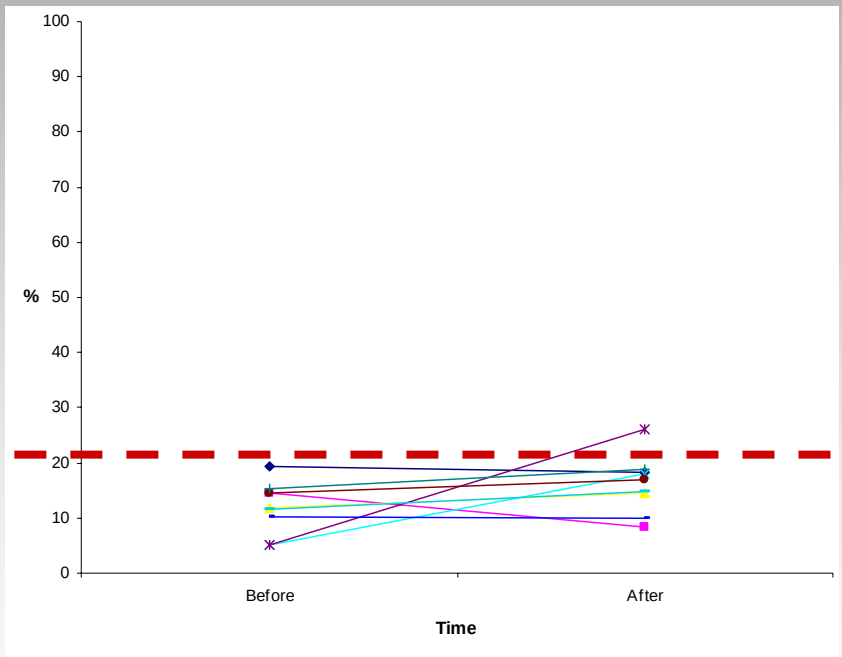


Intervention

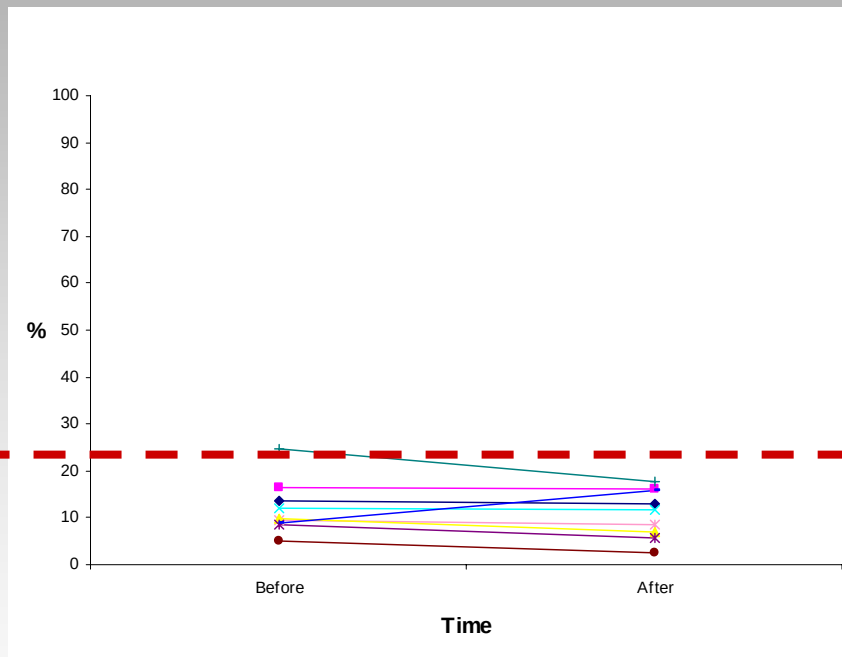


Control

No episiotomy with spontaneous vaginal birth

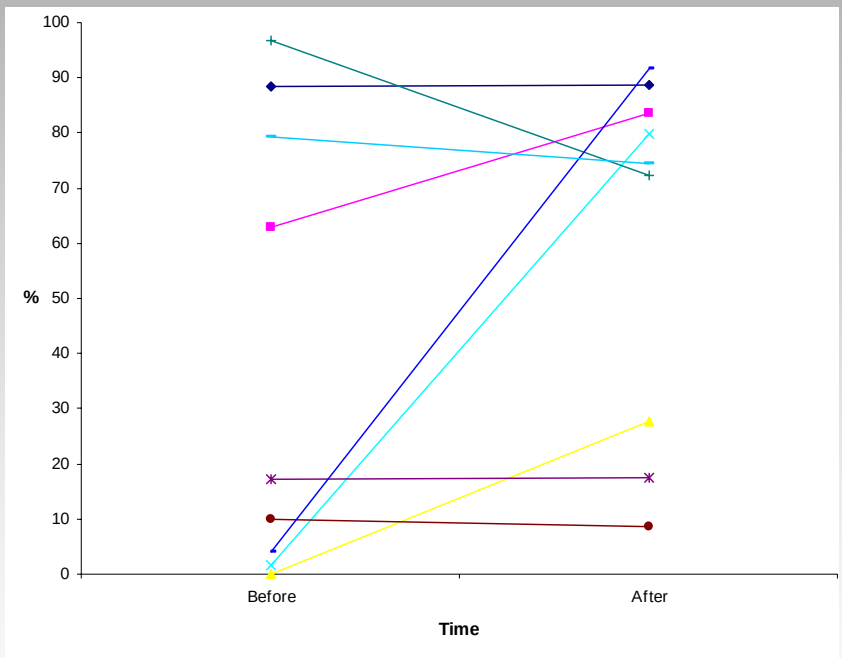


Intervention

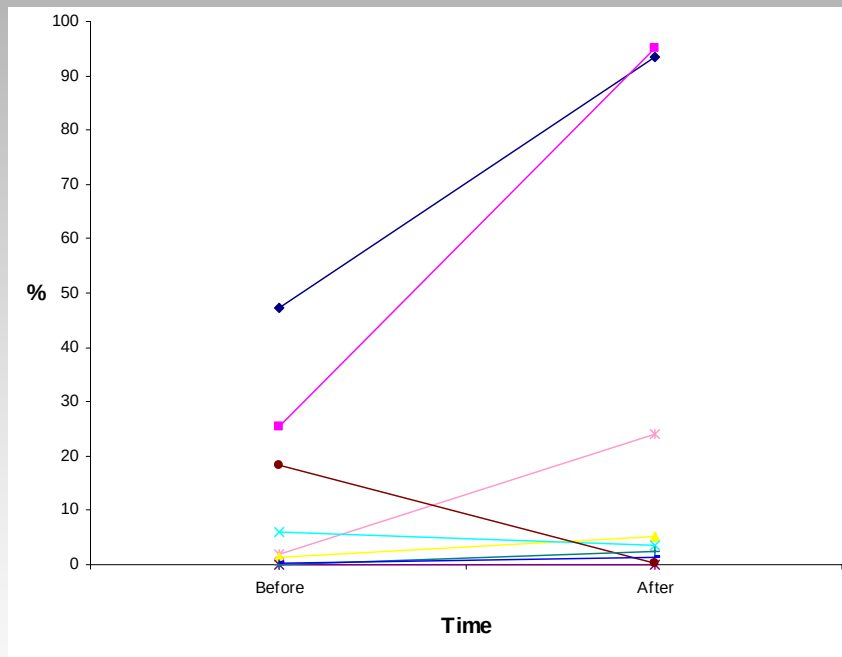


Control

Antibiotics at caesarean section



Intervention



Control

Background

- Increased policy interest in active implementation strategies
- However most of the approaches to changing clinical practice are more often based on beliefs than on scientific evidence
- *'Evidence based medicine should be complemented by evidence based implementation'*

Grol (1997). *British Medical Journal.*

Changing provider behaviour

- Commonly educational approaches have been used in attempts to change provider behaviour.
- These assume that key barriers relate to individual professionals' knowledge, attitudes and skills.
- Usually there is more than one barrier operating at multiple levels.

Potential barriers to evidence based practice

- Structural (e.g. financial disincentives)
- Organisational (e.g. inappropriate skill mix, lack of facilities or equipment)
- Peer group (e.g. local standards of care not in line with desired practice)
- Individual (e.g. knowledge, attitudes, skills)
- Professional - patient interaction (e.g. problems with information processing)

Cochrane Effective Practice and Organisation of Care (EPOC) Group

EPOC aims to undertake systematic reviews of interventions to improve practice 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

Alderson, Bero, Grilli, Grimshaw, MaCauley, Oxman, Zwarenstein (2002). *Cochrane Library.*

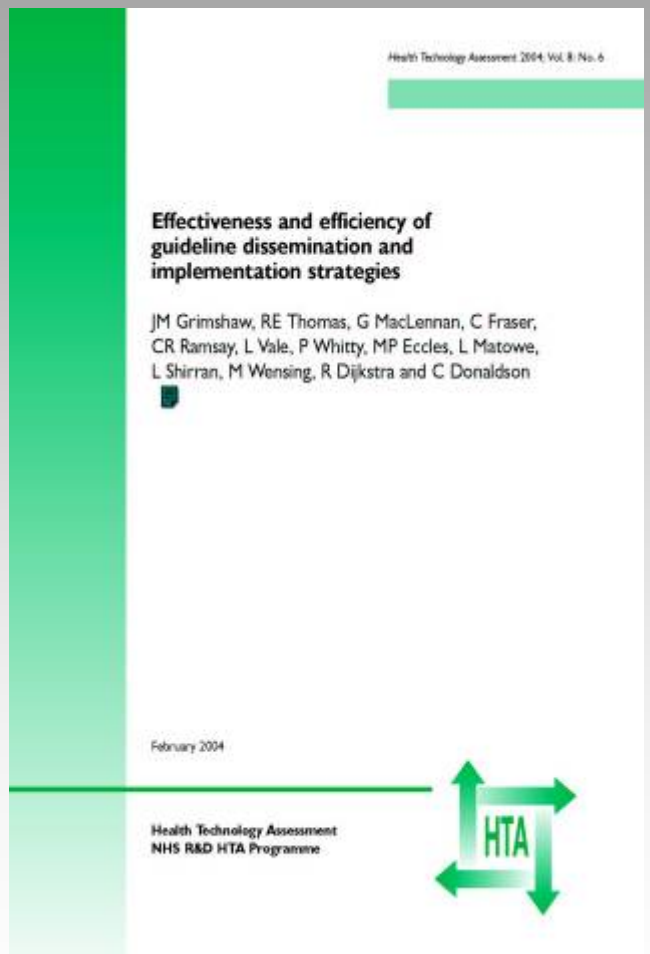
Cochrane Effective Practice and Organisation of Care (EPOC) Group

Progress to date - register and reviews

- Register of 4200+ primary studies
- 35 reviews, 25 protocols
- Collaborating with over 120 researchers from 12 countries

Alderson, Bero, Eccles, Grilli, Grimshaw, Mayhew, Oxman, Zwarenstein (2004). *Cochrane Library.*

Systematic review of guideline dissemination and implementation strategies



- Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay C, Vale L *et al*. Effectiveness and efficiency of guideline dissemination and implementation strategies. *Health Technol Assess* 2004.

  (Available from: http://www.hta.nhsweb.nhs.uk/)

Systematic review of guideline dissemination and implementation strategies

Results

- Included 285 reports of 235 studies, yielding 309 separate comparisons
- Overall methodological quality poor (eg unit of analysis errors common)
- Poor description of interventions
- Only 27% of studies used theories and/or psychological constructs
- 29.4% comparisons reported any economic data

Systematic review of guideline dissemination and implementation strategies

Results – single interventions

Intervention	Number of CRCTs	Range	Median effect size
Educational materials	5	+3.6%, +17.0%	+8.1%
Audit and feedback	5	+1.3%, +16.0%	+7.0%
Reminders	14	–1.0%, +34.0%	+14.1%

Results – multifaceted interventions

Multifaceted interventions including educational outreach

- 13 CRCT
  - Median effect +6.0% (range –4% to +17.4%)

Guideline dissemination and implementation strategies

- Improvements in direction of effect in 86% of comparisons
- Reminders most consistently observed to be effective
- Educational outreach, audit and feedback and dissemination of educational materials may lead to potentially important effects
- Multifaceted interventions not necessarily more effective than single interventions

Improving evidence base of professional behaviour change

- The good news – changing physician behaviour is possible though current efforts
- Need to move away from one size fits all approach – different interventions needed depending on attributes of behaviour, provider and practice environment
- Need better understanding of:
  - Professional and organisational behaviour change
  - Causal mechanisms of interventions

Choosing interventions

- The bad news - Little empirical evidence to guide choice of intervention to address different barriers -considerable judgement needed!

Conclusions

- Evidence based practice is mediated through provider behaviour within the context of the provider – patient dyad.
- Interventions addressing barriers at different levels may influence provider behaviour.
- Evidence that it is possible to change provider behaviour although effects are modest.
- Poor theoretical understanding of provider and organisational behaviour.

Towards evidence based practice

- Most clinical care occurs within the context of a provider – patient relationship.
- Provider behaviour is the most proximal determinant of evidence based practice.
- Changing provider behaviour is (one of) the right objective(s) to promote evidence based behaviour.

Moving forward

- Set priorities
- Measure current practice
- Select intervention based on priorities and barriers
- Evaluate interventions systematically

Future directions

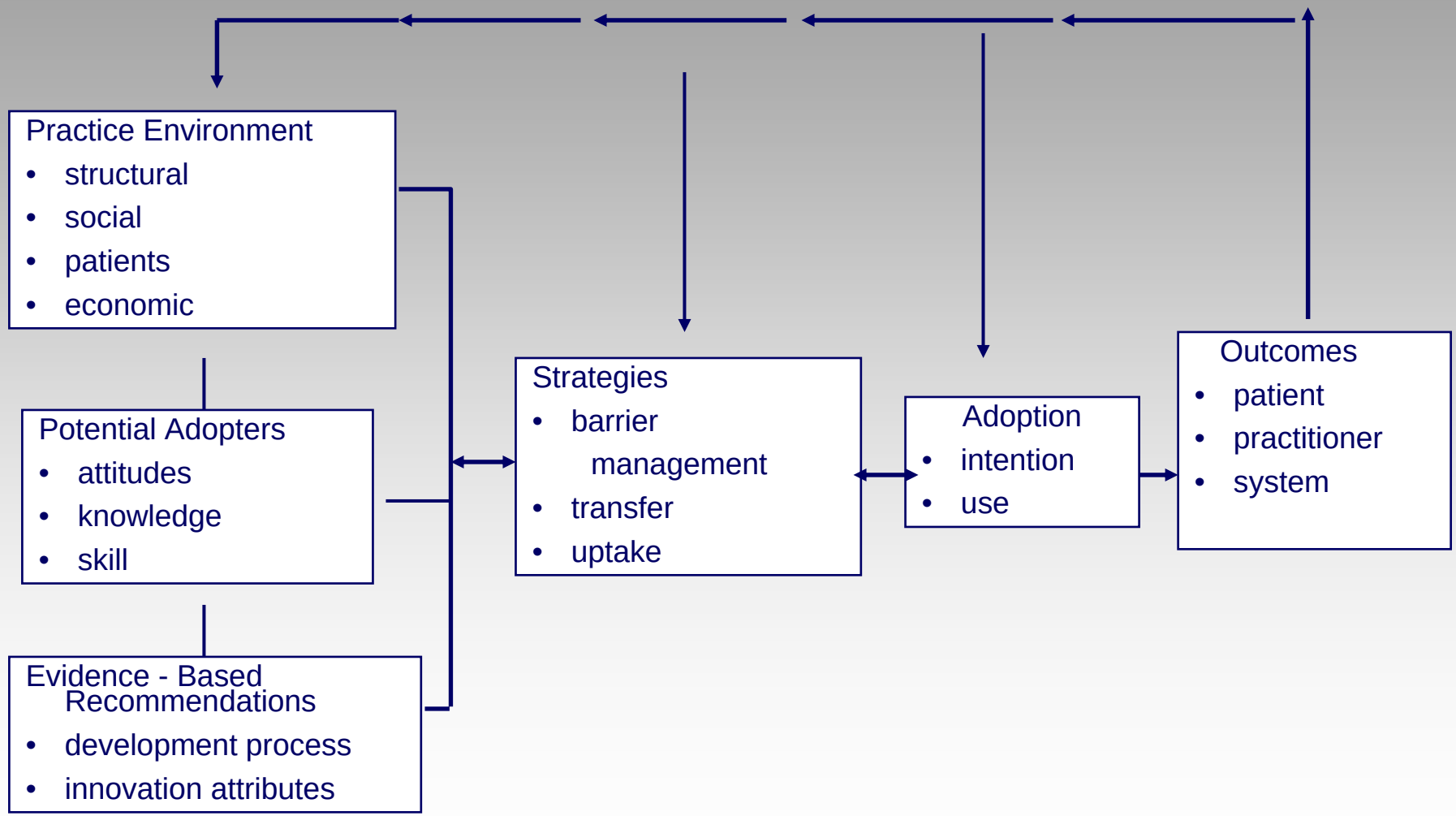
- Larger knowledge gap in implementation
- More implementation research
  - Both quantitative and qualitative
- Multidisciplinary research teams
  - Doctors, midwives, social scientists, educationists
- Appropriate levels of
  - Scientific rigour
  - Consultation from the beginning
    - Policy-makers
    - Providers
    - Consumers

Implications for health services research

- Implementation research agenda is substantial and inherently transdisciplinary
- No individual country's health services research program can address this agenda comprehensively
- Considerable opportunities for international collaboration

Ottawa Model of Research Use

Assess barriers & supports + Monitor strategy application & degree of use + Evaluate outcomes



Logan & Graham, 2002