

# How to bridge the gap between research and practice? The challenges of knowledge mobilisation in healthcare

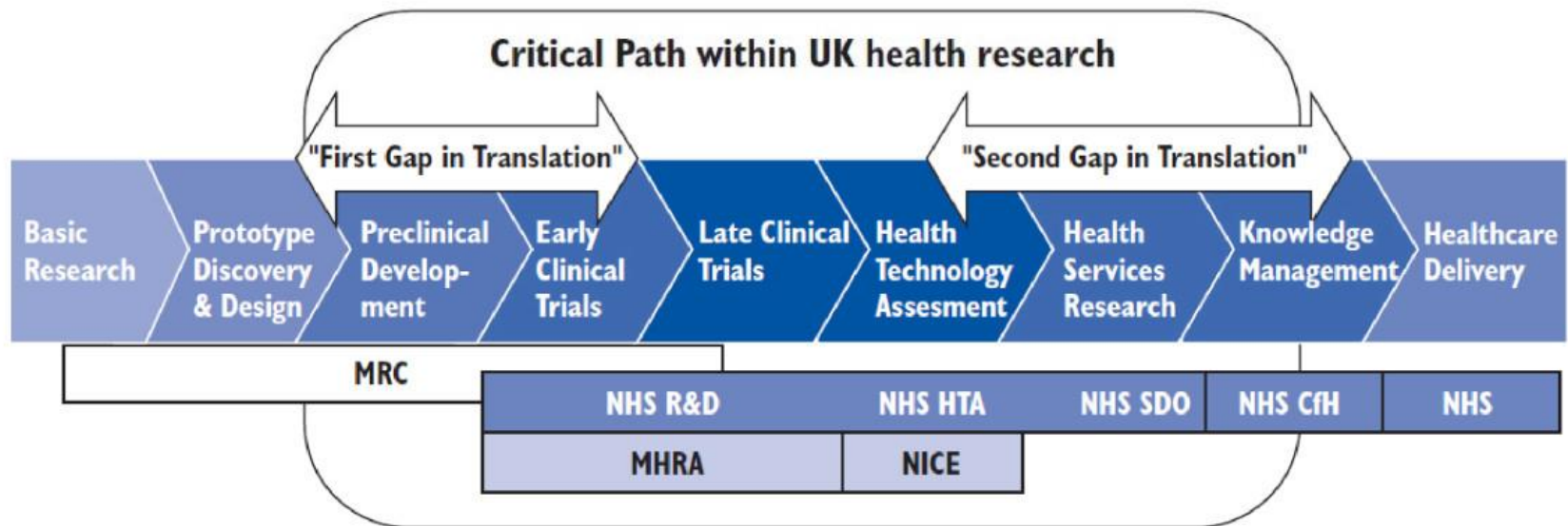
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# Overview

- Definitions
  - Research – practice gap
  - Knowledge mobilisation
- Synthesising empirical, theoretical and experiential evidence on knowledge mobilisation
  - Evidence-based implementation
  - Theoretical perspectives on knowledge mobilisation
  - CLAHRC GM experience
- Challenges

# Research – practice gap

- ‘First gap in translation’ – between basic science and applied products and ideas
- ‘Second gap in translation’ – between these products and ideas and their implementation in clinical practice



# Knowledge mobilisation

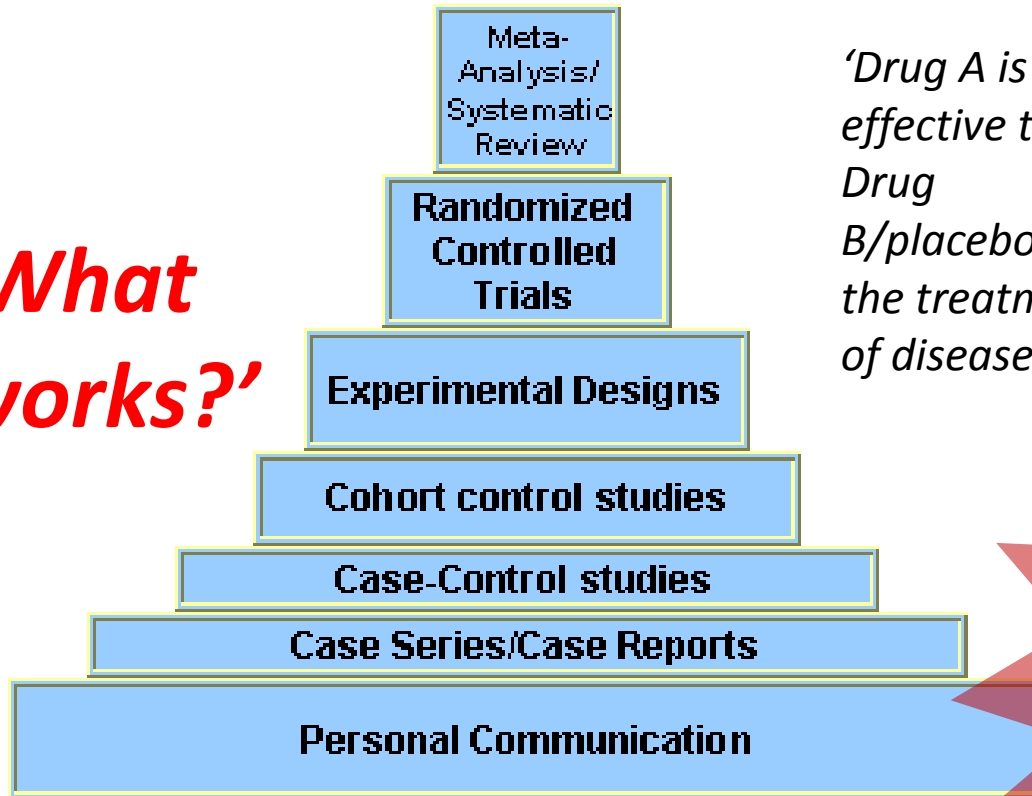
- ... is an emerging field of inquiry that seeks to strengthen connections between research, policy and practice across sectors, disciplines and countries, attempting to harness the benefits of research for organisational and societal improvement (Cooper and Levin 2010)
- ... 'refers to moving available knowledge (often from formal research) into active use' (Wikipedia)

# Knowledge

- Knowledge has tacit and explicit components:
  - *‘We can know more than we can tell’*  
(Polanyi 1958)
- *Explicit knowledge* – codifiable, ‘know-that’ knowledge
- *Tacit knowledge* – implicit, ‘know-how’ knowledge, embedded in practical skills and expertise

# Hierarchy of evidence

***‘What works?’***



*‘Drug A is more effective than Drug B/placebo in the treatment of disease X.’*

The biomedical approach to evidence

# Evidence-based medicine: challenges

- Robust evidence is not sufficient to facilitate diffusion
- The interpretation of scientific evidence is socially constructed
- Hierarchies of evidence may be perceived differentially by different individuals and occupational groups
- Tacit/experiential knowledge is perceived as a persuasive form of evidence, which exists in a reciprocal relationship with scientific evidence
- Evidence is debated and weighed alongside other factors

(Dopson *et al.* 2002; Ferlie *et al.* 2000; Fitzgerald *et al.* 1999; 2002; 2003)

# Evidence-based implementation

- ‘Evidence-based medicine should be complemented by evidence-based implementation’ (Grol 1997)
- *‘We know that drug A is effective in the treatment of X but how do we make clinicians use drug A instead of the traditional but less effective drug B?’*
- Developing and using a robust evidence base to support the choice of implementation strategies and interventions aiming to increase the uptake of research in clinical practice



## Evidence of effectiveness for interventions to promote behavioural change among health professionals

Consistently effective	Variable effectiveness	Little or no effect
<b>Educational outreach visits</b> (for prescribing in North America)	<b>Audit and feedback</b> (or any summary of clinical performance)	<b>Educational materials</b> (distribution of recommendations for clinical care)
<b>Reminders</b> (manual or computerised)	The use of <b>local opinion leaders</b> (practitioners identified by their colleagues as influential)	<b>Didactic educational meetings</b> (such as lectures)
<b>Multifaceted interventions</b> (a combination that includes two or more of the following: audit and feedback, reminders, local consensus processes, or marketing)	<b>Local consensus processes</b> (inclusion of participating practitioners in discussions to ensure that they agree that the chosen clinical problem is important and the approach to managing the problem is appropriate)	
<b>Interactive educational meetings</b> (participation of healthcare providers in workshops that include discussion or practice)	<b>Patient mediated interventions</b> (any intervention aimed at changing the performance of healthcare providers for which specific information was sought from or given to patients)	(Bero <i>et al.</i> 1998)

*For example:*

***‘What works for whom,  
how and in what  
circumstances?’***

- Audit and feedback ‘can be effective in improving professional practice’ (Jamtvedt *et al.* 2006)

BUT

- What exactly does it include?
- How to conduct audit and feedback most effectively?
- In what contexts does it work and why?
- In what contexts does it not work and why?
- How should audit and feedback be facilitated?

# Types of evidence to inform knowledge mobilisation

The social science approach to evidence

<i>Type of evidence</i>	<i>Description</i>
<b>Theoretical</b>	Ideas, concepts, and models used to describe the intervention, to explain how and why it works, and to connect it to a wider knowledge base and framework
<b>Empirical</b>	Information about the actual use of the intervention, and about its effectiveness and outcomes in use
<b>Experiential</b>	Information about people's experiences of the service or intervention, and the interaction between them

(Glasby *et al.* 2007)

# ...Now time for some theory



# Boundaries

- *Boundaries* – sociocultural differences between groups that can lead to discontinuity in action or interaction (Akkerman and Bakker 2011)
- The effect of boundaries is dual:
  - *Positive:*
    - creating the sense of collective identity;
    - enabling knowledge sharing *within* the group;
    - enhancing innovation
  - *Negative:* impeding knowledge flows *between* groups
- Examples: professional, organisational, departmental boundaries

# Approaches to knowledge mobilisation across boundaries (Carlile 2004)

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1. Information-processing perspective
2. Cultural perspective
3. Political perspective

# Information-processing perspective

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- Individuals act on the basis of strategic choice and cost-benefit calculations
- Knowledge can be codified, captured, stored, retrieved and transferred across contexts
- Breakdowns in knowledge transfer arise as a result of incompatible codes, routines and protocols
- *Solutions*: developing information artefacts—repositories, specifications and standards

# Cultural perspective

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- Knowledge processes reflect occupational conventions, norms and values
- Knowledge is seen to be largely tacit, situated and experiential, and not easily articulated and codified
- Knowledge sharing difficulties arise due to differences in meanings, assumptions and contexts
- *Solutions*: collective stories, common artefacts and boundary spanners/knowledge brokers



# Political perspective

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- Knowledge is inseparable from actors' interests
- Powerful individuals significantly influence knowledge processes
- Transformation of existing knowledge provokes resistance and requires investments in time and relationship building as well as compromises
- *Solutions*: constructing shared commitments, learning about each other's interests and dependencies, making powerful allies

# Mechanisms for change

A single intervention may draw on one or more mechanism, of which five emerge as prevalent and important:

- **Dissemination** – tailored formats, active
- **Social influence** – experts and peers
- **Interaction** – stronger links between research & practice communities
- **Facilitation** – enabling through technical, financial, organisational, personal support/development
- **Incentives** (rewards) & reinforcement

Adapted from: Walter I, Nutley SM & Davies HTO (2003) Developing a Taxonomy of Interventions used to Increase the Impact of Research. Discussion Paper 3, Research Unit for Research Utilisation, University of St Andrews.

# Dissemination – tailored formats, active

- Easy to read
- Appropriate words
- Executive Summary
- Presentation as well as report



- Websites with downloadable resources
- Linking from/to other national/professional/third sector websites
- Social media to spread the word
- Speaking at events



# Social influence – experts and peers

- Who are the key influencers?
  - May not always be who you think ... who do people talk with/go to?
  - Commissioners? Opinion leaders? Middle managers?
- Varying professions
- Local people with wider (national) roles
- Senior support is important but you still have to build relationships locally
- Peer pressure or competition?

# Interaction – stronger links between research & practice communities

- Not easy on your own
- Can you link with existing things?
  - Meetings
  - Seminars
  - Networks
- Multiple links with healthcare organisations at different levels
- ‘Get out there’ ... shadow, visit, sit there
- Invite people in (but why would they want to come?)
- Create knowledge brokering roles

# Facilitation – enabling through support/development

- Helping others to implement change
- Key in our experience, especially in primary care
- Nature depends on context
- Most effective when involves multidisciplinary teams
- Flexibility is important
- Resource-intensive
- If done properly, leads to sustainable improvement

# Incentives (rewards) and reinforcement

- Understand what these are ..
- And for whom they are important
  
- ***GP: is it in the QOF?***
- ***Manager: does it save money?***
- ***Nurse: does it improve patient care? ...and do people like it?***

# Challenges for knowledge brokering

- Tensions between:
  - professional autonomy and managerial control
  - performance-orientated and collaboration-orientated policies
- Limited managerial influence
- Lack of support from host organisations
- Difficult to broker knowledge to higher-status professionals
- Fragmented nature of healthcare context, especially in primary care



## *Some of our recent research...*

What strategies do knowledge brokering clinicians use to address these challenges in the fragmented context of primary care?

# Relying on 'boundary bridges'

...Having a clinical link and a sort of admin link and probably a link with one of the practice nurses... within the surgery seems to be the best model to have...

...Communication with [one of the GP practices... is difficult because it all goes through one person... and it's hard to know how much information that's sent to her is disseminated.

**Clinicians and administrators  
as links between the CLAHRC  
and GP practices**

# Conforming to existing ways of doing things

You have to be flexible, you have to go with their way of working; otherwise they just won't want the meetings to take place... You can't just go in with a blueprint of how it's going to work...

...We have tried to show the GPs who've shown initial reluctance what we've managed to achieve by coding all their patients correctly which will ultimately not only make much better for patient care but will also improve their practice figures. ...GPs and practice managers are very keen on their QOF figures

...One GP said to me last week, *'There's no incentive for me to do heart failure reviews'*. People will get better care but he was talking in terms of remuneration because of the QOF points and things that they get...

# Shifting from 'facilitating' to 'doing'

...Our secondees have been encouraged and pushed towards *doing* rather than *facilitating* to achieve [project] outcomes.

**Pressure from the  
CLAHRC**

- Facilitation often becomes marginalised
- Project objectives are met...
- ...But has knowledge been transferred?

...The restriction of having a [secondee] that, yes, *links* into the rest of the mental health teams, but isn't specifically there to *do* that job... is slightly frustrating...

**Pressure from  
primary care  
practices**

# Reflections

- Evidence into practice will always be messy with no 'one size fits all'
- Evidence about 'what' isn't enough
- Evidence about 'how' is important but not enough
  - Theory and experience are useful
- Divergent interests and cultures should be taken into account
  - The effectiveness of dissemination is limited
  - Facilitation may help but requires additional support
  - Incentives and targets should be used to advantage
- Implementation and spread don't just happen



*“We had a nice neat linear model of research into practice, but if I’ve learned one thing through CLAHRC ... it’s that the process isn’t linear at all”*

(CLAHRC Director – Clinical Academic)