

Strength through diversity? A journey through the MRC/NIHR Framework

14/01/24

The Future of Evaluation in Health and Social Care

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Outline

- Where did the MRC/NIHR Developing and Evaluating Complex Interventions Framework come from?
- Where we got to and why, highlighting strength in:
 - Diversity of perspective
 - Diversity of voice
 - Diversity of method
- Where did we not get to?
 - Remaining challenges
 - Provocations

Journey through MRC Complex Intervention Guidance

Education And Debate

Framework for design and evaluation of complex interventions to improve health

BMJ 2000 ; 321 doi: <https://doi.org/10.1136/bmj.321.7262.694>

Cite this as: BMJ 2000;321:694

Article

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BMJ 2008;337:a1655 doi: 10.1136/bmj.a1655 (Published 29 September 2008)

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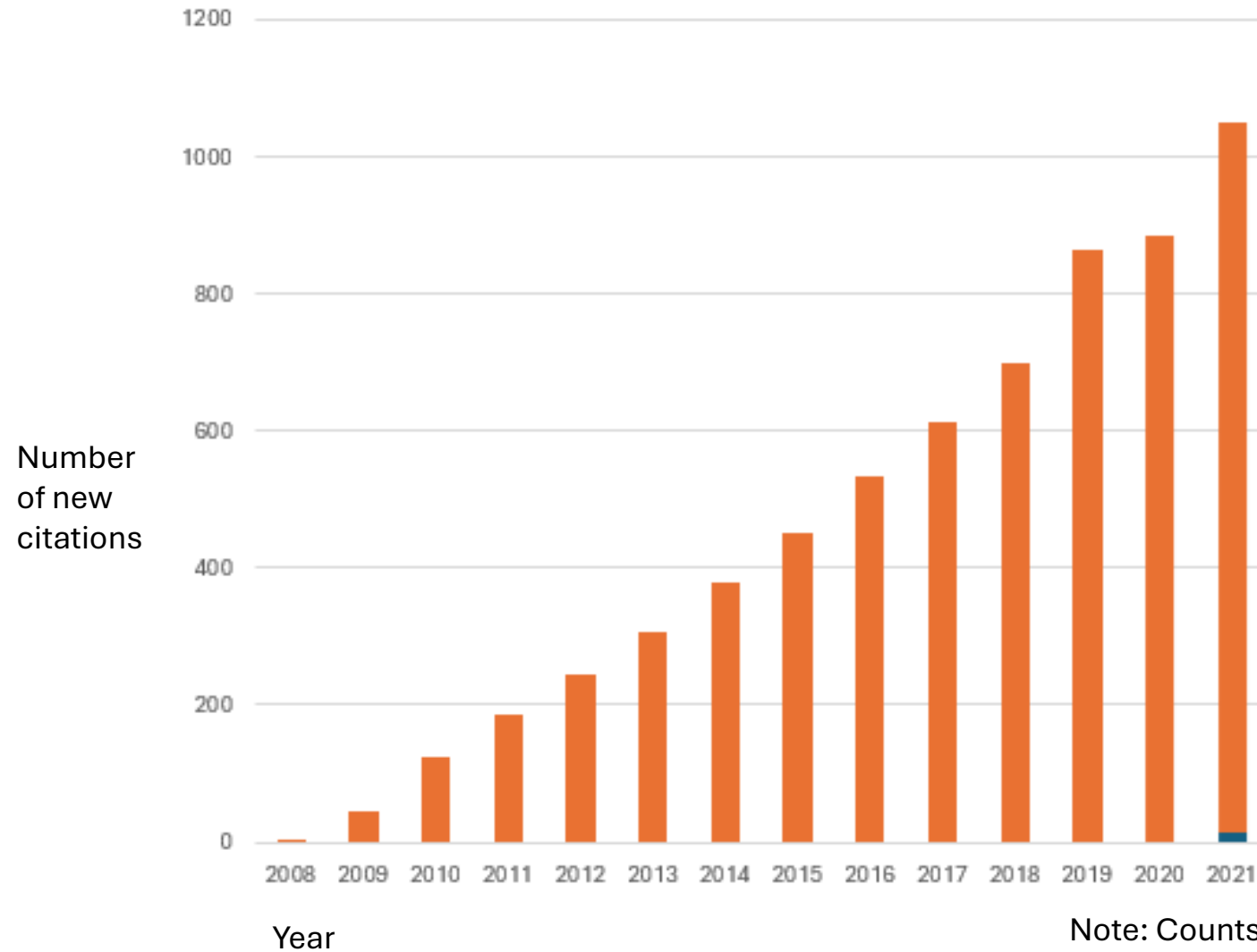
RESEARCH METHODS & REPORTING

Developing and evaluating complex interventions: the new Medical Research Council guidance

Evaluating complex interventions is complicated. The Medical Research Council's evaluation framework (2000) brought welcome clarity to the task. Now the council has updated its guidance

Peter Craig programme manager¹, Paul Dieppe professor², Sally Macintyre director³, Susan Michie professor⁴, Irwin Nazareth director⁵, Mark Petticrew professor⁶

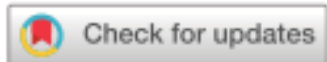
Complex Interventions Guidance, new citations per year 2008-2021



Note: Counts for 2008 complex interventions guidance include all 3 versions of the paper

Our challenge: updating the guidance

- Include theoretical and methodological developments
- Take criticism of previous guidance into account
- Represent the views of users
- Be more inclusive in terms of audience
- Create a document that is useful
- Provide worked examples
- Don't lose people along the way
- Widen from a dominant focus on evaluation, to including the whole research process

 OPEN ACCESS

A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance

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The UK Medical Research Council's widely used guidance for developing and evaluating complex interventions has been replaced by a new framework, commissioned jointly by the Medical Research Council and the National Institute for Health Research, which

Complex interventions are commonly used in the health and social care services, public health practice, and other areas of social and economic policy that have consequences for health. Such interventions are delivered and evaluated at different levels, from individual to societal levels. Examples include a new surgical procedure, the redesign of a healthcare programme, and a change in welfare policy. The UK Medical Research Council (MRC) published a framework for researchers and research funders on

BMJ: first published as 10.1136/bmj.n2061 on 31

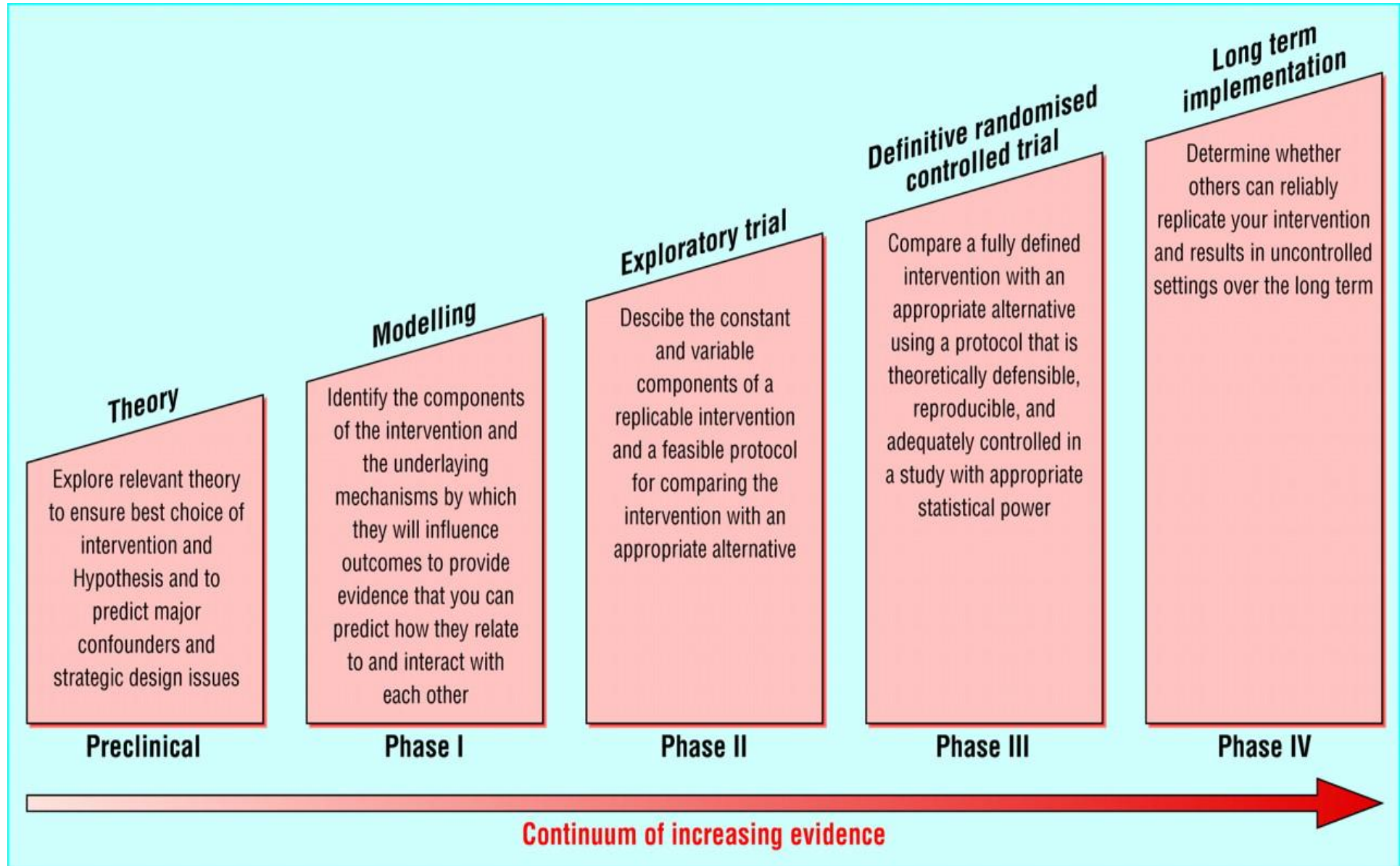
Shift in definition of ‘complex intervention’

- 2000: Comprise a number of separate elements which seem essential to the proper functioning of the intervention although the “active ingredient” of the intervention that is effective is difficult to specify.
- 2006: Several dimensions of complexity, e.g., range of outcomes & their variability in the target population, local context.
- 2021: Components & design of the intervention itself, and the conditions in which it is designed, evaluated, and implemented.
- Does it still make sense to talk about ‘complex interventions’?

Diversity of Perspective

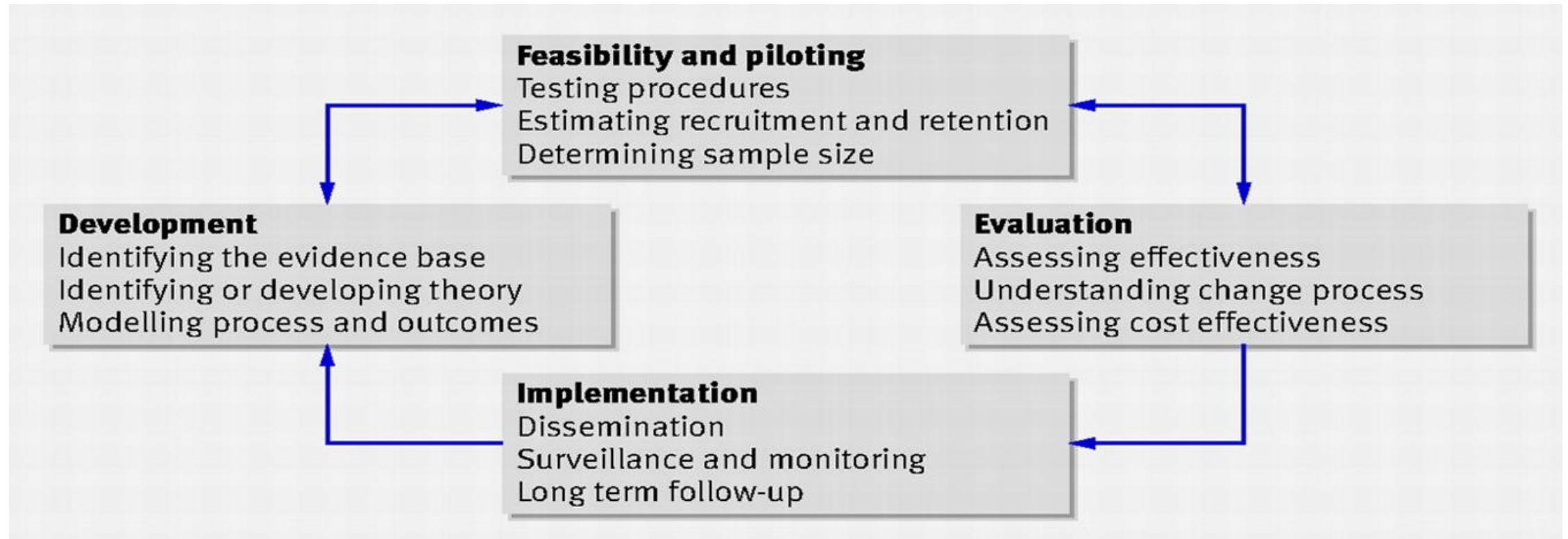


Does it work?



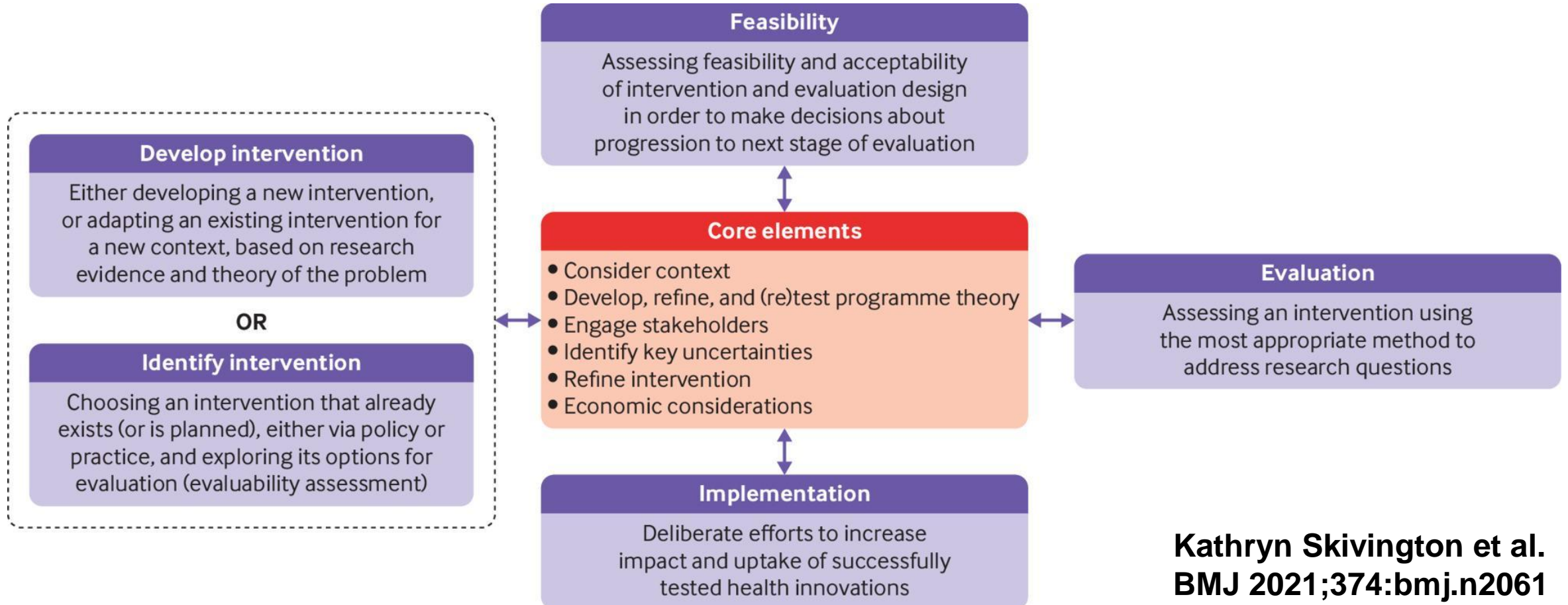
Michelle Campbell et al. BMJ
2000;321:694-696

Does it work in everyday practice? How?



Peter Craig et al. BMJ 2008;337:bmj.a1655

Where do the uncertainties lie?

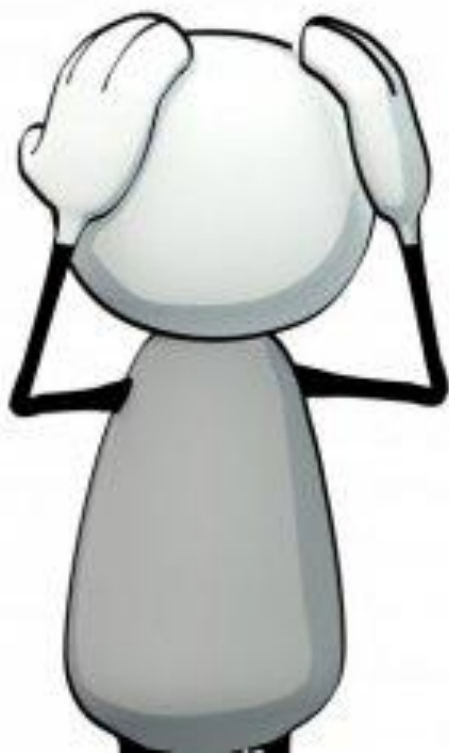
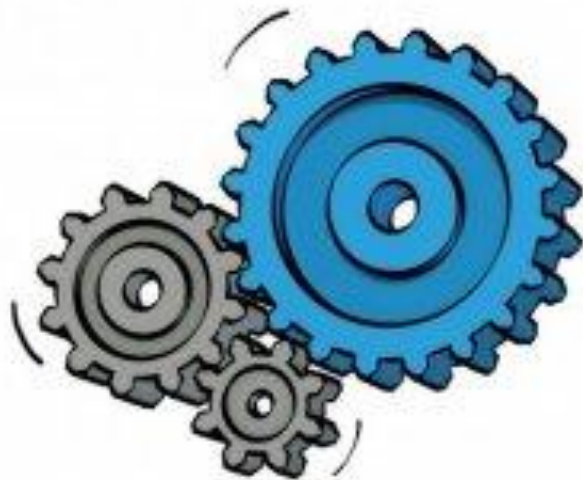


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BMJ 2021;374:bmj.n2061**

Perspective	Questions
Efficacy	Does the intervention work, in a tightly controlled experimental setting?
Effectiveness	Does the intervention work, in the kind of setting(s) where it is expected to be implemented in practice?
Theory based	How does the intervention achieve impact, given its interactions with the context in which it is implemented?
Systems	How do system and intervention adapt to one another? Does the intervention change the system in which it is implemented and vice versa?

Complex Intervention?





Diversity of Voice

2000: academic literature as starting point;
engagement discussed only through
qualitative research once theory and
preliminary research has been done.

2006: involve stakeholders in
implementation strategy to ensure
relevance.

2021: engagement as core element.



Poorly designed evaluations that do not pay attention to how they will be used waste time, money, & energy.

Everyone loses!



It makes sense.
I just don't care.



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Diversity of Method

From hierarchy to toolkit

- Method is not the starting point (as it was in the 2000 guidance).
- Shift in 2006: highlighting the importance of awareness of the whole range of experimental and non-experimental approaches, and making appropriate methodological choices.
- 2021: what are the uncertainties; what perspective is required; what methods are appropriate?

Evaluation approaches and methods

Widened range of evaluation approaches and methods.

Too confusing?

- Or, is it pragmatic to take account of the menu of options and consciously choose the most appropriate, rather than sticking to a default option regardless of situation?

We're just starting to plan our evaluation. Which methods should we consider?



All of them.

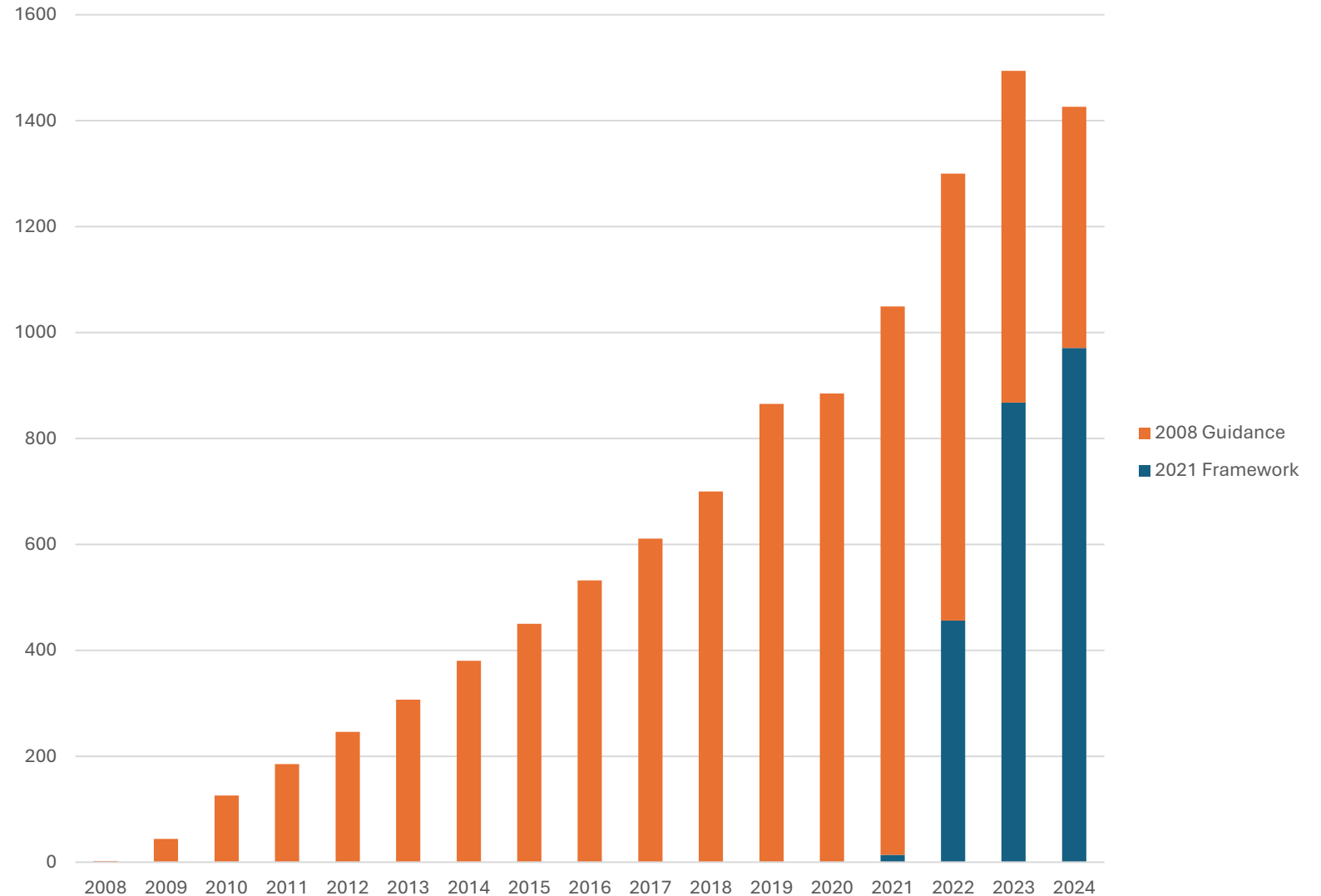


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People are looking for guidance

Number of new citations

Complex interventions guidance, new citations per year 2008-24



Notes: (1) There is a lag in updating counts for current year (2) Counts for 2008 complex interventions guidance include all (3) versions of the paper

Onwards: Where we haven't got to



Onwards: Remaining Challenges

Yes, but what do we *do*?

Which stakeholders should we involve?

How do we know this is a 'good' evaluation? Did it follow the framework? How can it help with my decision?

How do we do a systems evaluation?

This is great and we need to take all this on board but budget is limited and we need an answer in 6 months

I don't want caveats, I want to know what to do!

Will research funders take the risk?

PROVOCATIONS!



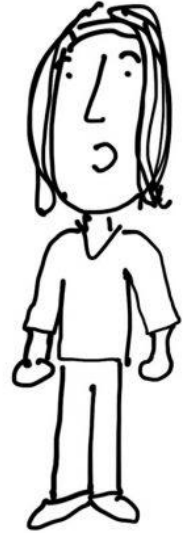
LET'S HAVE A HEATED DEBATE

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P1: Widening the range of evaluation methods/perspectives can make evaluation and evidence more confusing and less useful

- Difficult for researchers, funders, editors, decision makers
 - Is this the optimal question / perspective / design?
- Is evaluation incommensurable with doing something simply and quickly?
- Does the Framework make the 'evaluation enterprise' more complex and slower?
- Breaks down false reliance on 'hierarchy of evidence'
- Flexible, programmatic funding and iterative, cumulative learning more robust than isolated nuggets
- Can speed things up and avoid unnecessary research
- Evidence synthesis critical

Great news. RCT results are in, if the program is implemented with fidelity it produces significant results.



Cool, too bad it's impossible to implement.

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We implemented the same program in two locations. For some reason, we had very different results.



P2: An expensive evaluation should give me a certain answer- if it provides insights that remain equivocal / conditional, then what's the point?

- Heightens awareness of limitations of generalisability across time, context, system state
- Foregrounds multiple axes of uncertainty and erodes confidence in straightforward inference
- Evidence users exist in complex systems (HDRC experience)
- Shift to evaluative practice / culture rather than one-off evaluation projects
- Cumulative knowledge and understanding more 'real' and useful for decision makers

P3: Too many voices?

- Involving a diversity of perspectives can over-complicate, add costs and slow set-up and progress
- Soaks up scarce resources and can easily go wrong
- Risk of involving disruptive voices / bad actors
- Will attempting to suit everyone actually suit no one?
- Cannot undermine importance of public involvement and engagement of decision makers, implementers, practitioners, evidence users in:
- Prioritising research questions
- Identifying key outcomes of interest
- Maximising understanding of system fit / implementation success

P4: Assessing the quality of a comprehensive evaluation is too difficult – how do we know this more complex evidence is good quality/reliable?

- Funders, journal editors, reviewers and evidence users need to assess quality / trustworthiness of study
- Less emphasis on internal validity and more on real world relevance/fit – how to do this?
- Checklist
- More flexible funding / publication modes
- Greater willingness to take risk
- Can't ignore context, complexity, conditionality of external validity, impact on inequalities
- Synthesis, theory, contribution rather than does it work?

Acknowledgements

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