THE IMPLEMENTATION CAFÉ

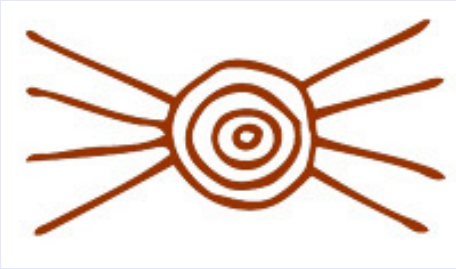
brewing ideas for research impact

Journal Club #2: HOW DO I KNOW WHEN THE TIME IS RIGHT? NEEDS ASSESSMENTS IN IMPLEMENTATION

Supported by

Nutrition & Health Innovation Research Institute
STRATEGIC RESEARCH INSTITUTE

Acknowledgment of Country



Edith Cowan University acknowledges and respects the Noongar people, who are the traditional custodians of the land upon which its campuses stand and its programs operate. In particular, ECU pays its respects to the Noongar Elders, past and present, and embraces their culture, wisdom and knowledge.

Session #1 Recap

1. **Evolution of the field of implementation science**
   - Recognition that developing good evidence for health care was not in itself, any guarantee that it would be taken up by health care professionals
   - Discipline created to improve people's health, strengthen health service delivery, empower communities, inform policy

2. **Models, theories, frameworks**
   - Help to structure implementation efforts to include all relevant factors

3. **Important to decide whose is responsible for implementation**
   - Scientist who produces the research?
   - Person who translates evidence into policy?
   - End-user of the work?
   - Or...?

An implementation refresher

- **The intervention/practice/innovation is THE THING**

THE THING
Describes exactly *what* you want people to do:

- *Programs*
- *Practices*
- *Principles*
- *Procedures*
- *Pills*
- *Products*
- *Policies*

An implementation refresher

- The intervention/practice/innovation is **THE THING**
- *Effectiveness* research looks at whether **THE THING** works

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- *Implementation* research looks at how best to help people/places **DO THE THING**

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An implementation refresher

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- *Implementation* research looks at how best to help people/places **DO THE THING**
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**

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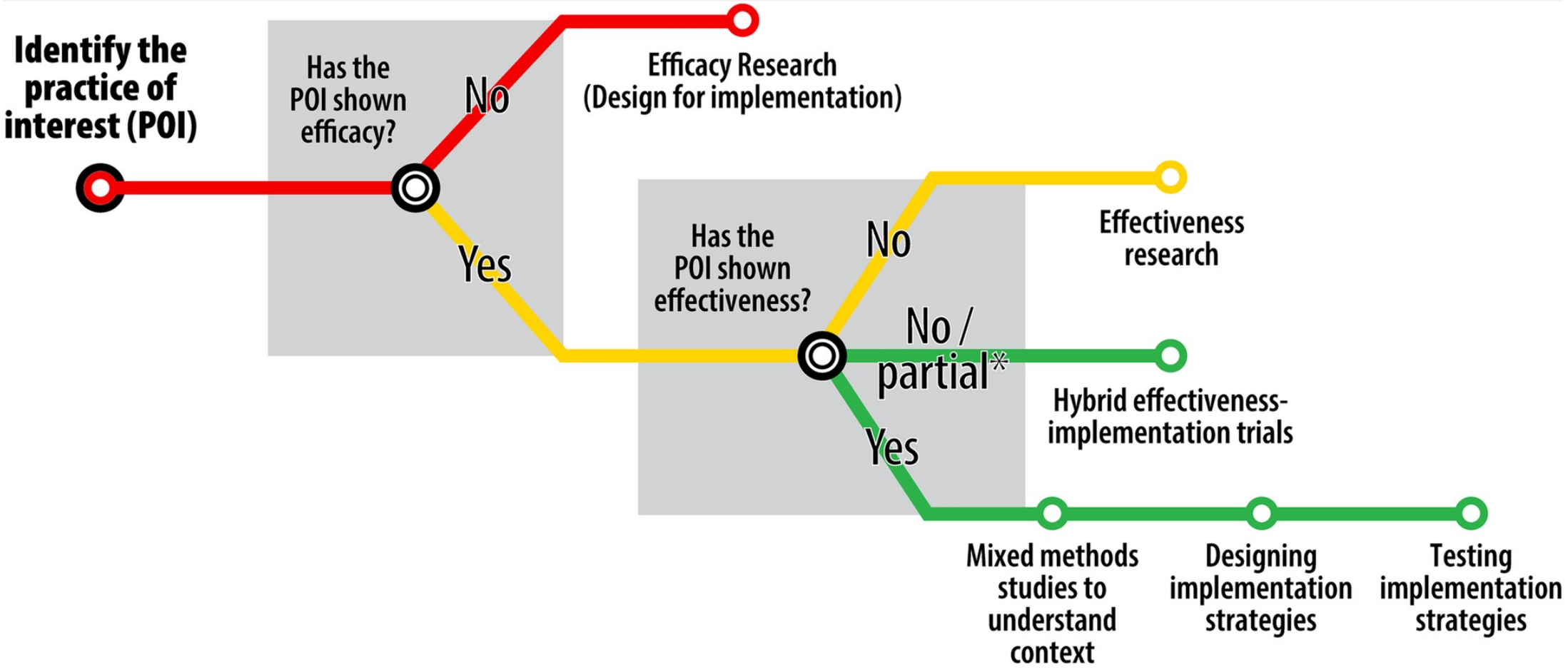
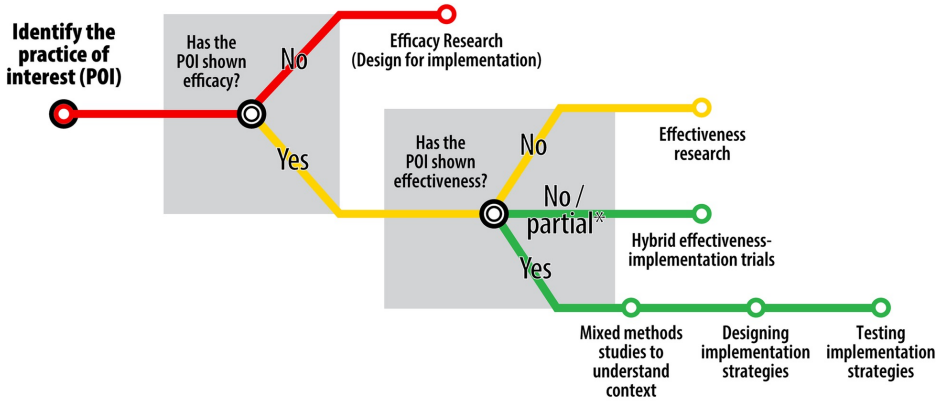
Locating yourself on the “subway line” of translational research



Lane-Fall MB, Curran GM, Beidas RS. Scoping implementation science for the beginner: locating yourself on the “subway line” of translational research. BMC medical research methodology. 2019 Dec;19(1):1-5.

Case studies



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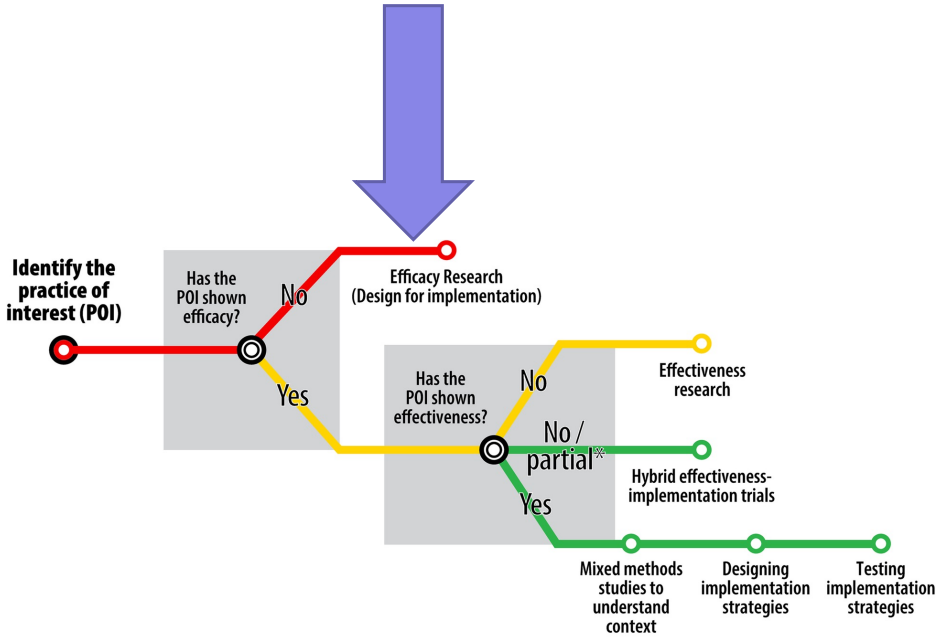
* In some cases it may be appropriate to move forward with a hybrid Type 1 trial in the absence of effectiveness evidence (e.g., very strong efficacy, indirect evidence supportive of potential effectiveness in context of interest, and/or strong momentum supporting implementation in a health care context).

Research question 1

Does a new clinical protocol for sepsis improve patient outcomes?

The THING is the clinical protocol. It has been pilot tested in a non-randomized fashion with promising results.

Case studies



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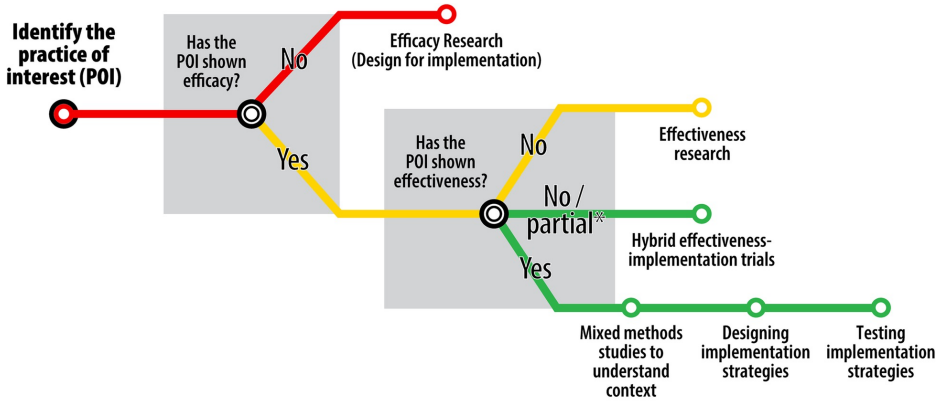
Research question 1

Does a new clinical protocol for sepsis improve patient outcomes?

The THING is the clinical protocol. It has been pilot tested in a non-randomized fashion with promising results.

Without randomized controlled trial data, we would say that evidence of efficacy is missing, so implementation studies are not yet warranted. The protocol should undergo efficacy testing, but the intervention developers should consider future implementation in the refinement and testing of the intervention (e.g., is it too complicated to work in routine clinical practice?).

Case studies



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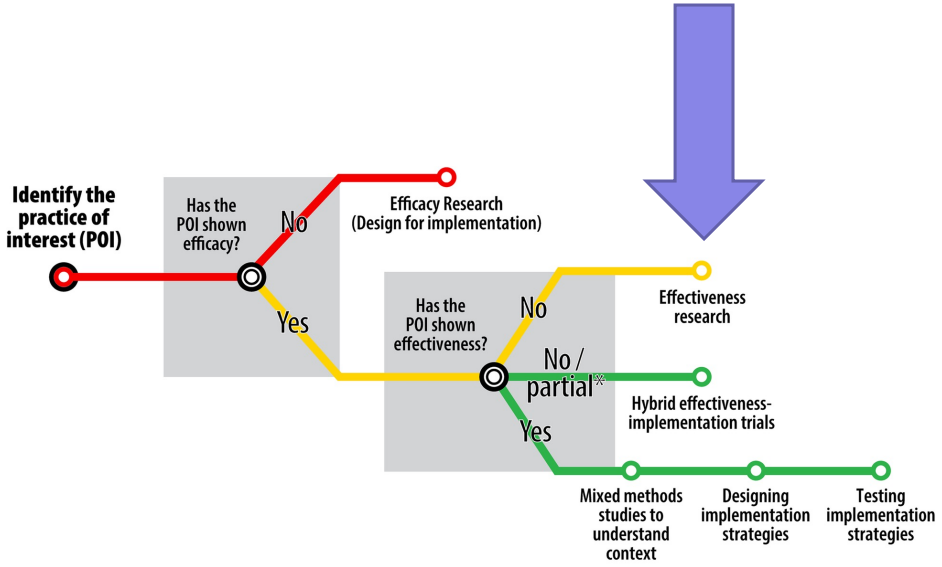
Research question 2

Multiple randomized clinical trials have shown that an exercise protocol improves bone strength in breast cancer patients.

Does this exercise protocol work in heterogeneous cancer patient populations? The THING is the exercise protocol.

Case studies



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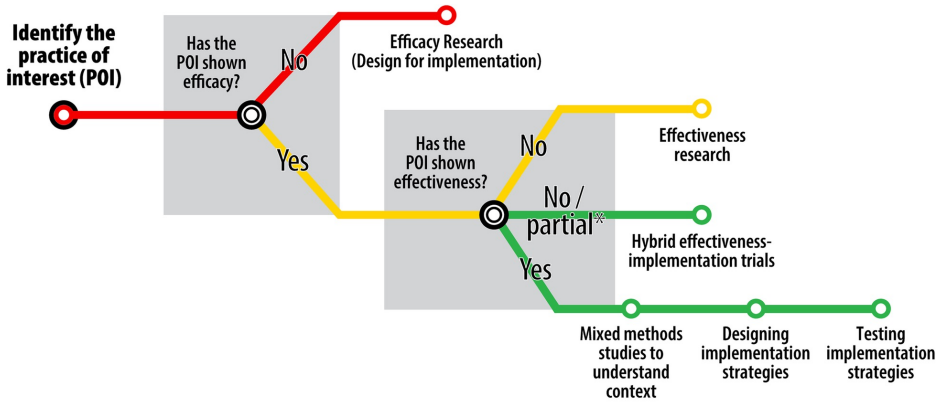
Research question 2

Multiple randomized clinical trials have shown that an exercise protocol improves bone strength in breast cancer patients.

Does this exercise protocol work in heterogeneous cancer patient populations? The THING is the exercise protocol.

Although there is evidence of efficacy, we do not yet know whether the exercise protocol works in routine clinical practice. Efficacious interventions can fall flat in the real world once the realities of dosing, side effects, and interactions with other conditions and medications are considered. **The exercise protocol is not yet ready for studies of implementation, so effectiveness studies should occur next.** However, effectiveness studies may yield observational data that will inform future implementation efforts.

Case studies



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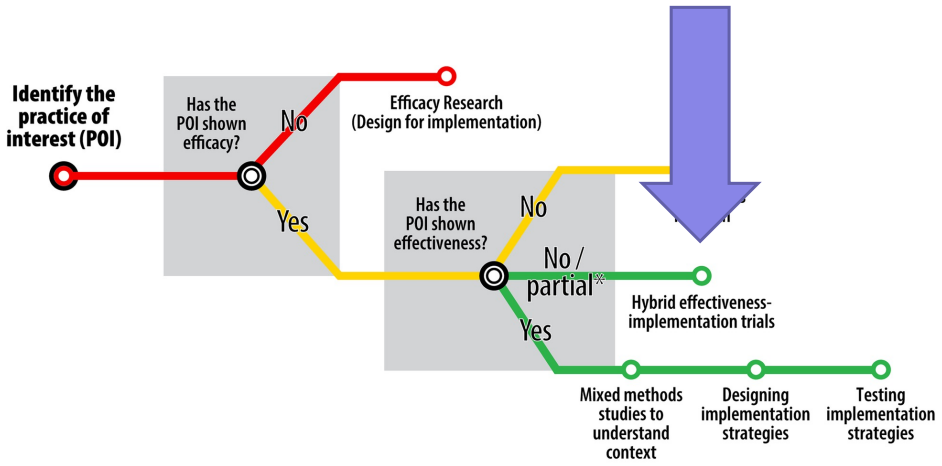
Research question 3

Care coordination pathway Y improves outcomes for heart failure patients in both efficacy and effectiveness studies. Will it work for patients with diabetes?

The THING is the care coordination pathway.

Case studies



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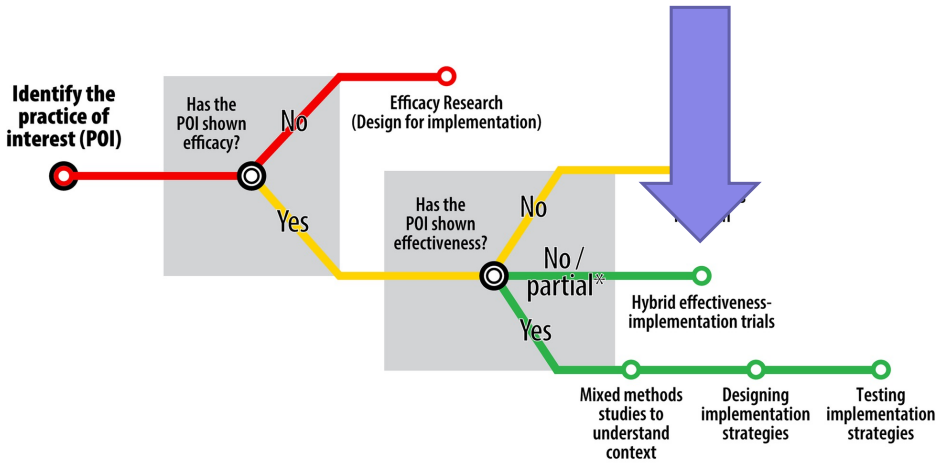
Research question 3

Care coordination pathway Y improves outcomes for heart failure patients in both efficacy and effectiveness studies. Will it work for patients with diabetes?

The THING is the care coordination pathway.

It would be reasonable to study Pathway Y in effectiveness studies focused on patients with diabetes. Alternatively, **a hybrid Type 1 trial would maintain a focus on effectiveness while either prospectively or retrospectively collecting information to inform future implementation efforts**.

Case studies



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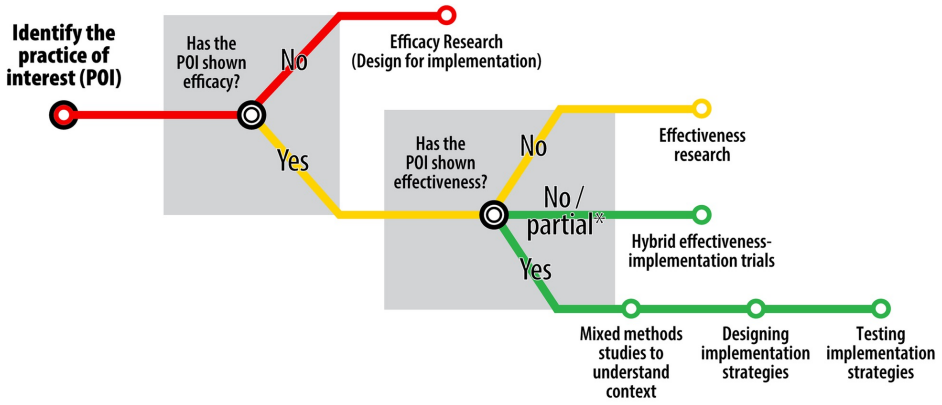
Research question 3

Relevant implementation outcomes for this early implementation evaluation include:

- Acceptability (i.e., how palatable or agreeable the THING is from the perspective of stakeholders)
- Appropriateness (i.e., the perceived fit of the THING for a given setting, clinician, or patient)
- Feasibility (i.e., the extent to which the THING can be successfully deployed in a given setting)
- Fidelity (i.e., the degree to which the THING is implemented as it was intended).

These implementation outcomes and their relationship to more studied clinical effectiveness outcomes are explained in detail in seminal papers by Proctor and colleagues in 2009 and 2011.

Case studies



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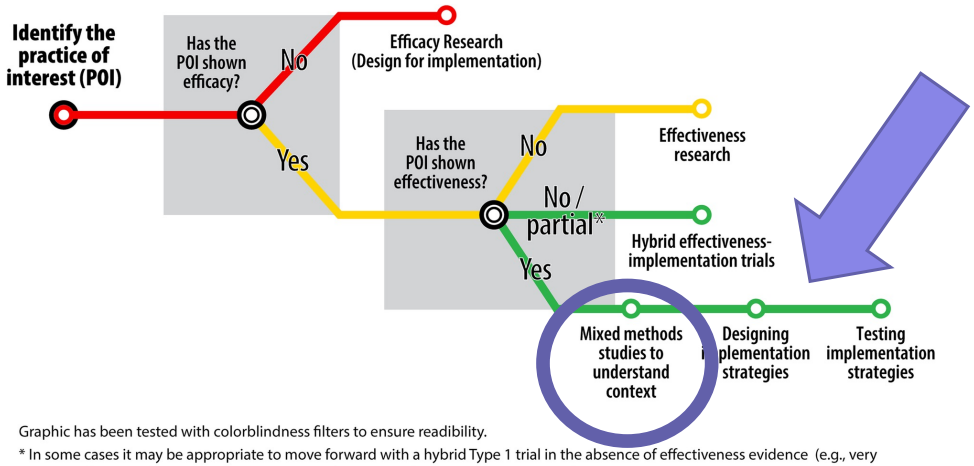
Research question 4

Colon cancer screening leads to earlier cancer detection and improved patient outcomes. What strategies can be used to increase colon cancer screening?

The THING is colon cancer screening.

Case studies



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Research question 4

Colon cancer screening leads to earlier cancer detection and improved patient outcomes. What strategies can be used to increase colon cancer screening?

The THING is colon cancer screening.

This evidence-based practice is ripe for studies of implementation given the robust evidence base supporting it. Implementation studies are warranted. The focus of implementation studies will depend on what is known about the context to be studied. Potential study designs range from observational contextual inquiry to randomized controlled trials of implementation strategies.

EXAMPLE: MIXED METHODS RESEARCH TO UNDERSTAND CONTEXT

International guidelines for the protection of athlete health

- Guidelines intended for use by international audience
- Understand HOW the guidelines are used in two distinct contexts: South Africa & Australia

Intended to:

- Inform dissemination of current and future guidelines
- Justify future guidelines
- Inform next step of research project

Fortington LV, Badenhorst M, Bolling C*, et al*
Are we levelling the playing field? A qualitative case study of the awareness, uptake and relevance of the IOC consensus statements in two countries. *British Journal of Sports Medicine.* 2023. doi: 10.1136/bjsports-2022-105984

UNDERSTANDING THE CONTEXT

Inclusion and data collection

We identified two cases to be compared with consideration to:

- distinct health systems (low/high economic settings)
- location of research teams
- relationship with participants
- governance & ethics
- budget, timing,

- When two cases were established:
  - Organisations within those two countries
  - People in the organisations

UNDERSTANDING THE CONTEXT

Choice and consideration of data sources & participants crucial

DATA SOURCES: CASE 1	Topic 1 Structure of the organisation	Topic 2 Country structure	Topic 3 Awareness of the guidelines
1. Participant interview Chief Medical Officer and committee chair			
2. Participant interview Physiotherapist committee member			
3. Field notes (two data collectors)			
4. Website Organisation main website			
5. Document (any reports or correspondence shared with us or identified in interview)			

Gale, N.K., Heath, G., Cameron, E. *et al.* **Using the framework method for the analysis of qualitative data in multi-disciplinary health research.** *BMC Med Res Methodol* **13**, 117 (2013). https://doi.org/10.1186/1471-2288-13-117

How did context awareness set up the next steps?

Inform dissemination of current and future guidelines

- Previously used the same strategies for everyone

Inform development of future guidelines

- Justified the cost and resources for future guideline development
- Identified the types of guidelines and formats that are most valued

Inform next step of study

- Justification to conduct a global survey to extend findings

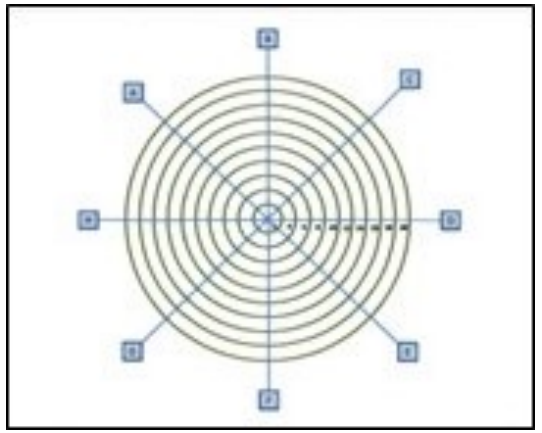
  Further understanding of challenges

The guidelines are intended for use by international audience

Cannot (and should not) be changed, BUT strategies need to change

Checklist to Assess Organisational Readiness for Implementation ('CARI')

Checklist to Assess Readiness for Implementation (CARI)		Not even close	Some way to go	Nearly there	We're there
		1	2	3	4
A. SYSTEM CAPACITY					
To what extent do you think:					
A1.	The service funder (i.e., MCYS) recognizes the **importance of EIP**.				
A2.	The service funder accepts that implementation of EIPs will necessarily **affect service provision** (e.g., could increase waitlist for service).				
A3.	The service funder and/or administrator recognize that EIP implementation may require **additional expenditures**, requiring additional budget and/or shifting along budget lines.				
A4.	**Technical assistance** (e.g., EIP training, coaching, ongoing support) is available for the EIP(s) being implemented.				
A5.	All **stakeholders** having a role to play have been consulted about their views on the EIP implementation.				
	Sub-Totals:				
	Total for A:				



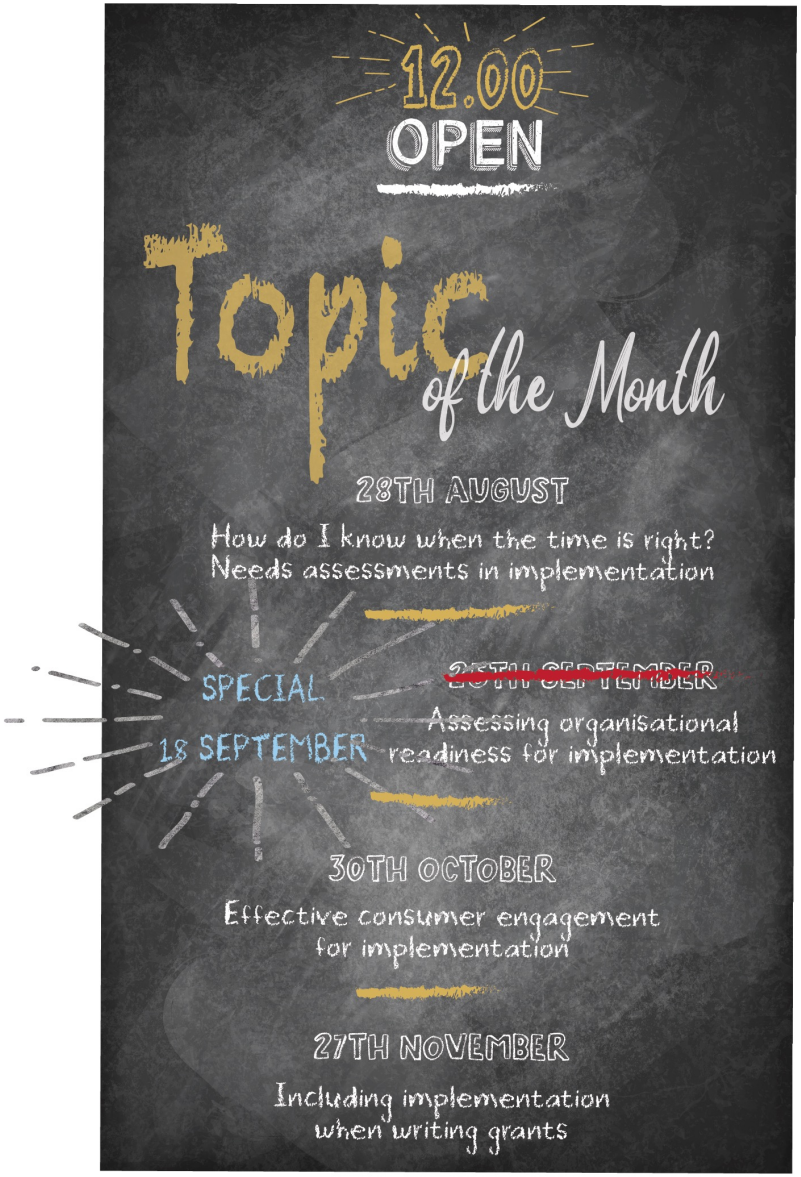
CARI - Checklist for Assessing Readiness for Implementation - BARWICK (melaniebarwick.com)

Completed by all in the **stakeholder group***

* Is usually fluid, dynamic - membership changes through the project

* Some constants

* KEY stakeholders can identify who should be present and when



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Next session

18th September

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