Implementation Science:
*Five Things to Know Before You Start*

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**Key Learnings**
By the end of the session, learners will:
1. Discuss why implementation science is important to health.
2. Identify five factors that limit the translation of evidence to sustainable practice change.
3. Describe at least one framework for designing an implementation strategy and apply the framework to a real world health problem.

**Stop the show!**
In small groups or on your own:
- Think about a practice change you or one of your colleagues tried to put in place in your work setting?
- Was it a success or a failure?
- Write down some factors you think might have had an impact on its success or failure?

When ready, re-start the presentation.
Studies estimate an average of 17 years for new knowledge from randomised controlled trials to be incorporated into practice – and that is variable.

Morris et al. JAMA 2011; 104:510-520
Why the focus on implementation?

Two very different questions
1. Does it work?
   - efficacy
   - effectiveness
2. Does it work in the real world?
   - Where and when
   - Why and how

The business case for implementation science is clear. As healthcare systems work under increasingly dynamic and resources-constrained conditions, evidence-based strategies are essential in order to ensure that research investments maximize healthcare value and improve public health.

Implementation Science
“...the scientific study of methods to promote the systematic uptake of ... EBPs into routine practice ... to improve the quality and effectiveness of health services.”

Bauer and Damshcroder 2015
Five Reasons Implementation Fails

1 Lack of clarity in the aim or the innovation

• What are you trying to achieve?
• What changes do you want to make that will result in improvement?
• What is the evidence to support changes to practice or service?

2 Lack of understanding of the context

Because the interaction of factors at multiple levels may influence the success or failure of improvement interventions, an understanding of these factors is crucial to an effective intervention.

1 Ferlie and Shortell 2001; 2 Grol and Wensing 2004; 3 van Bokhoven, Kok, van der Weijden 2003
Not including people in the plan or the planning

**Stakeholders...**
- Are anyone with an interest in the outcomes of your project
- Have something to gain or lose
- Are involved in or affected by the project

- *If you build it, they will come...*

Knowledge Translation is about ensuring:

- Stakeholders are aware of and use evidence to inform their decision making and practice
- Research is informed by the experience and needs of the stakeholders

Bad planning

Implementation plans should:
- Be well designed, well prepared and preferably pilot tested before use (Grol 2001)
- Guided by a theory of change

*Benjamin Franklin: “By failing to prepare, you are preparing to fail.”*
Theories and models and frameworks

“Theories are like toothbrushes. Everyone has their own and no one wants to use anyone else’s.”

Campbell & Zazkis 2002

Aims and Categories of Theories

Describing and/or guiding the process of translating research into practice
- Process models
- Determinant frameworks

Understanding and/or explaining what influences implementation outcomes
- Classic theories
- Implementation theories

Evaluating implementation
- Evaluation frameworks

Michie et al 2011

The Behaviour Change Wheel (incorporating COM-B Theory)

“Changing behaviour is not easy, but is more effective if interventions are based on evidence-based principles of behaviour change.”

Cane et al 2012

Michie et al 2011
Promoting Action on Research Implementation in Health Services (i-PARIHS) Framework

Harvey and Kitson 2016

Consolidated Framework for Implementation Research (CFIR)

Damschroder et al 2009

Theoretical Domains Framework (TDF) (Michie et al 2013)
Failing to build support for sustainability and scale up

- Evaluation of process and outcome
- Addressing contextual barriers
- Keeping people engaged and informed of progress
- Fidelity to the innovation and the implementation plan

Stop the show!
In groups or on your own, answer the following:
1. Why is implementation science important to health?
2. What are five factors that can limit the translation of evidence to sustainable practice change?
**Summary**

**Five Things to Know Before You Start**

1. Be clear about your aim and innovation
2. Understand the context
3. Engage people throughout the process
4. Develop a clear, logical plan for change
5. Build support for sustainability

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**References**


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**Images**

- Field of Dreams - [https://goo.gl/R8Bjc9](https://goo.gl/R8Bjc9)
- Journal image - [https://goo.gl/2UrjuF](https://goo.gl/2UrjuF)
- Ben Franklin - [https://goo.gl/SP1Fc](https://goo.gl/SP1Fc)
- Scientist cartoon - [https://goo.gl/yv6Dm](https://goo.gl/yv6Dm)
- Navigating context - [https://goo.gl/G41aSD](https://goo.gl/G41aSD)
- Albert Einstein - [https://goo.gl/RmF9z](https://goo.gl/RmF9z)