MTR
MYTRANSLATIONRULES

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.
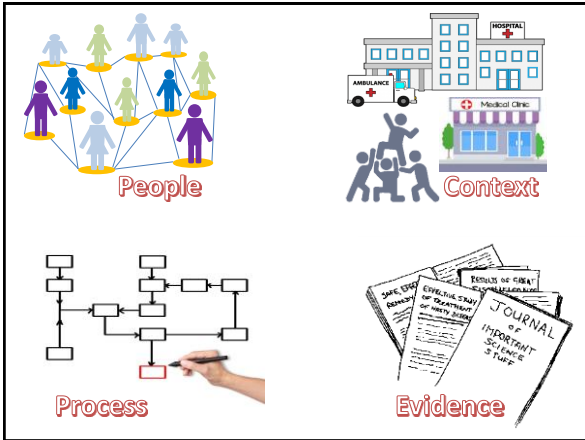

Stop the show!

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.

People

Context

Process

Evidence

Why the focus on implementation?

Evidence-Practice Gap

*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?

Evidence based innovation

?

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*

Bauer et al. BMC Psychology (2015) 3:32
DOI 10.1186/s40359-015-0089-9

BMC Psychology

DEBATE   **Open Access**

An introduction to implementation science for the non-specialist

Mark S. Bauer[1,2*], Laura Damschroder[3], Hildi Hagedorn[3], Jeffrey Smith[4] and Amy M. Kilbourne[5,6]

> 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.
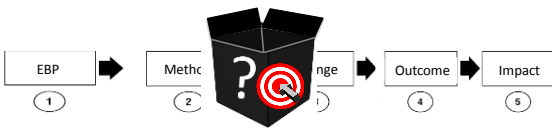

Implementation Science

"…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 Damschroder 2015

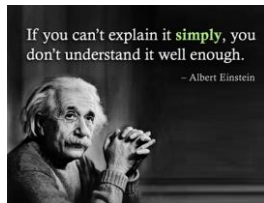EBP → Method → ...nge → Outcome → Impact

Five Reasons Implementation Fails

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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?

If you can't explain it **simply**, you don't understand it well enough.
– Albert Einstein

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2 Lack of understanding of the context

Because the interaction of factors at multiple levels may influence the success or failure of improvement interventions[1], an understanding of these factors is crucial to an effective intervention[2, 3]

- *It's not all about the bass… it's about the*
Context

[1]Ferlie and Shortell 2001; [2]Grol and Wensing 2004; [3]van Bokhoven, Kok,van der Weijden 2003

3 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

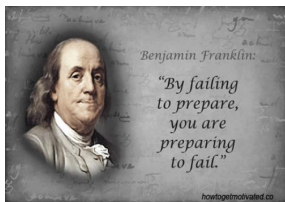Research is informed by the experience and needs of the stakeholders

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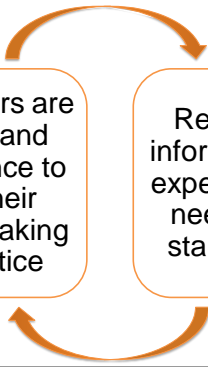
4 Bad planning
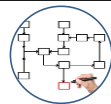
Implementation plans should:

- 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."

howtogetmotivated.co

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

...Oh, my!

Aims and Categories of Theories

Describing and/or guiding the process of translating research into practice → Process models

Understanding and/or explaining what influences implementation outcomes → Determinant frameworks

Classic theories

Implementation theories

Evaluating implementation → Evaluation frameworks
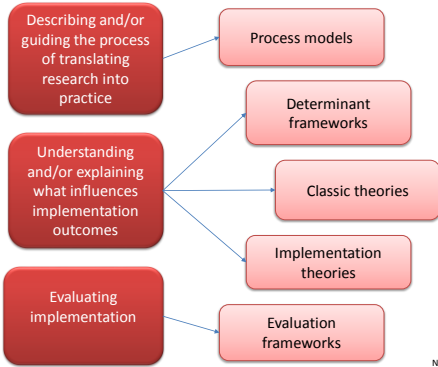
Nilsen 2015

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

Can do it

It's possible to do it

Want to do it

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)

12 14 constructs
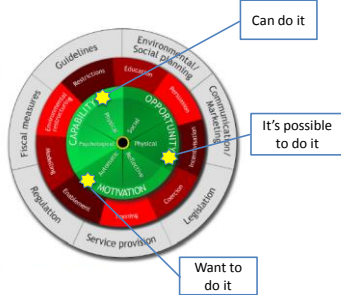
5 Failing to build support for sustainability and scale up

- *Evaluation of process and outcome*
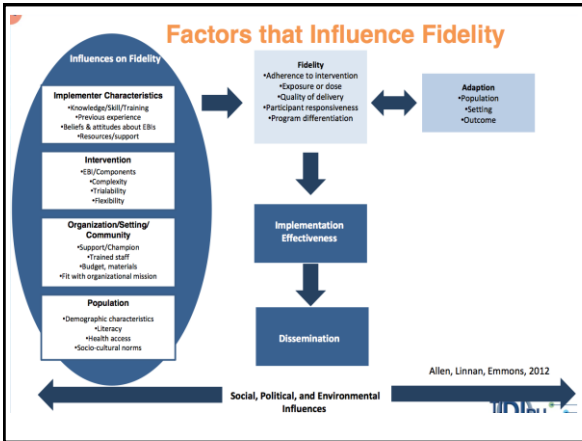
- *Addressing contextual barriers*

- *Keeping people engaged and informed of progress*

- *Fidelity to the innovation and the implementation plan*

Factors that Influence Fidelity

Influences on Fidelity

Implementer Characteristics
- Knowledge/Skill/Training
- Previous experience
- Beliefs & attitudes about EBIs
- Resources/support

Intervention
- EBI/Components
- Complexity
- Trialability
- Flexibility

Organization/Setting/Community
- Support/Champion
- Trained staff
- Budget, materials
- Fit with organizational mission

Population
- Demographic characteristics
- Literacy
- Health access
- Socio-cultural norms

Fidelity
- Adherence to intervention
- Exposure or dose
- Quality of delivery
- Participant responsiveness
- Program differentiation

Adaption
- Population
- Setting
- Outcome

Implementation Effectiveness

Dissemination

Allen, Linnan, Emmons, 2012

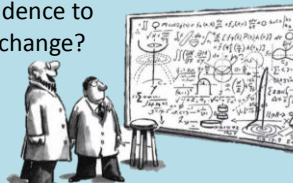**Social, Political, and Environmental Influences**

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?

When ready, re start the presentation.

Five Things to Know Before You Start

SUMMARY

1 Be clear about your <u>aim and innovation</u>

2 Understand the <u>context</u>

3 Engage <u>people</u> throughout the process

4 Develop a clear, logical <u>plan</u> for change

5 Build support for <u>sustainability</u>

References

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- Allen JD, Linnan LA, Emmons KM. Fidelity and its relationship to implementation effectiveness, adaptation, and dissemination. In Dissemination and Implementation Research in Health: Translating Science to Practice. Brownson RC, Colditz GA, Proctor EK (eds). Oxford: Oxford Scholarship Online., 2012. DOI: 10.1093/acprof:oso/9780199751877.001.0001

Images

- Field of Dreams - https://goo.gl/RzRjc9
- Wizard of Oz - https://goo.gl/Uq6OYY
- Journal image - https://goo.gl/2UrJuF
- Ben Franklin - https://goo.gl/SP1lFc
- Scientist cartoon - https://goo.gl/jv6GDm
- Navigating context - https://goo.gl/G41aSD
- Albert Einstein - https://goo.gl/RsMZ9z