



## Implementation science – A novel perspective on bridging the gap between evidence and immunisation acceptance

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# **Dissecting effectiveness (i)**







# Fidelity: a point of tension?



Developers & evaluators

Implementors

[Castro et al, Ann Rev Clin Psychol 2010;6:213-39]





## **Dissecting effectiveness (ii)**







## **Dissecting effectiveness (iii)**

**Does my intervention actually(work.).?** 

For WHOM, HOW EXACTLY, in what CONTEXTS, with what UNINTENDED CONSEQUENCES ?





## Intervention evaluation = a complex matter

### Does my intervention actually work...?

Intervention as I, the researcher, designed it vs. as delivered in practice

> Fidelity vs. adaptation tension

Multiple intervention components, or 'active ingredients'

Concept of 'complex interventions' For WHOM, HOW EXACTLY, in what CONTEXTS, with what UNINTENDED CONSEQUENCES ?





## Path from generating to applying evidence



#### [Haynes B, Haines A, BMJ 1998;317:273-6]







# Things that often get 'lost'...

#### RCT world

- Intention to maximise
   intervention efficacy
- Careful selection of patients/participants
- Specialised+trained researchers implementing & measuring
- Research funds

#### Real life

- Intention to achieve sustainable delivery
- Widespread adoption
  - Generalist practitioners, often no further training, no ad hoc measurement
- Service delivery funds (limited)





### **Deadly gap between research and real life**



BELLE MELLOR 2012 ADAFTED FROM AN ORIGINAL BT B. MELLOR





### **Deadly gap between research and real life**



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[Slote Morris et al, J R Soc Med 2011;104:510-20]

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[NIH. 2015]

# **Closing the gap: Implementation science**

 The scientific study of methods to promote the uptake of research findings into routine healthcare in clinical, organisational or policy contexts

[Implementation Science journal website]

 It supports innovative approaches to identifying, understanding, and overcoming barriers to the adoption, adaptation, integration, scale-up and sustainability of evidence-based interventions, tools, policies, and guidelines







#### **Evaluate implementation ALONGSIDE effectiveness**



[Moore et al, BMJ 2015;350:h1258]





### **Implementation success**

I = fE + IO's

#### I = Implementation success

E = Effectiveness of the treatment being implemented

IO's = Implementation factors or outcomes

[Proctor et al, Adm Policy Ment Health 2011;38:65-76]

Implementation outcome	Definition
Acceptability	Perception amongst stakeholders new intervention is agreeable
Adoption	Intention to apply or application of new intervention
Appropriateness	Perceived relevance of intervention to a setting, audience, or problem
Feasibility	Extent to which an intervention can be applied
Fidelity	Extent to which an intervention gets applied as originally designed / intended
Implementation costs	Costs of the delivery strategy, including the costs of the intervention itself
Coverage	Extend to which eligible patients/population actually receive intervention
Sustainability	Extent to which a new intervention becomes routinely available / is maintained post-introduction





A refined compilation of implementation strategies: results from the Expert Recommendations for

Implementing Change (ERIC) project Byron J Powell<sup>17</sup>, Thomas J Waltz<sup>2</sup>, Matthew J Chinman<sup>34</sup>, Laura J Damschroder<sup>5</sup>, Jeffrey L Smith<sup>6</sup>,

Ionica M Matthieu<sup>6,7</sup>, Enola K Proctor<sup>8</sup> and JoAnn E Kirchner

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## **Implementation strategies**

#### Methods or techniques used to enhance the adoption, implementation, and sustainability of a clinical programme, practice or intervention



- Adaptation & tailoring of interventions to local setting
- Clinical/service stakeholder engagement (e.g. champions, train-the-trainers)
- Training & education
- Patient/service user engagement
- Audit and feedback

Choose and tailor strategies depending on the

contextual factors you are faced with





### **Reflections – for discussion!**

- Producing evidence does not equate improving services or uptake
- Implementation science offers a language and a way of thinking around how interventions work (or not) in the real world
  - Takes us from research to real life settings
- Multidisciplinary endeavour



THANK YOU!



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