

Introduction to Implementation Research

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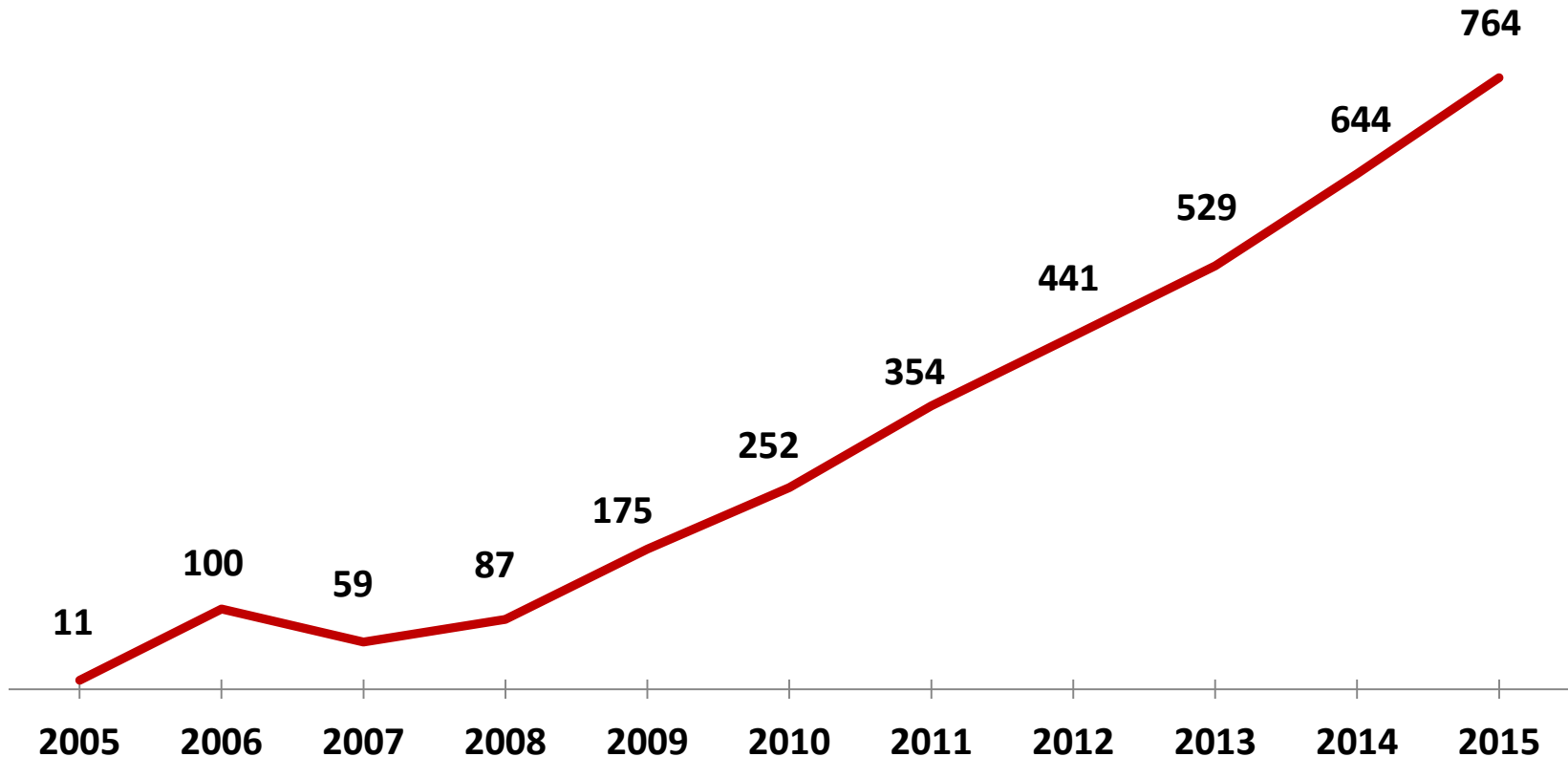
Outline

- What is implementation research
- Scope and boundaries
- Approaches and methods
- Challenges and future directions

Implementation Science?

An emerging field

Number of manuscripts submitted



What it is

- Research examining the implementation of evidence-based practices or policies or the de-implementation of those demonstrated to be relatively ineffective or even harmful
- Study of processes, fidelity and context
- Study of influences on provider, patient and organisational behaviour
- Cost effectiveness

And what it isn't

- Research establishing the effectiveness of a clinical, organisational, public health or policy intervention
- Quality improvement or service evaluation
- Weak designs
- Doing implementation or lessons learned

So in other words...

TABLE 2

Design Characteristics of Clinical Effectiveness and Implementation Trials (Ideal Types)

Design Characteristic	Clinical Effectiveness Trial	Implementation Trial
Test	“Clinical” intervention	Implementation intervention or strategy
Typical unit of randomization	Patient, clinical unit	Provider, clinical unit, or system
Typical unit of analysis	Patient	Provider, clinical unit, or system
Summative outcomes	Health outcomes; process/quality measures typically considered intermediate; costs	Adoption/uptake of the “clinical” intervention; process measures/quality measures typically considered outcomes

Curran et al. *Med Care* 2012;50:217-26.

Methods and approaches

Not constrained by any specific research method but encompasses:

Theoretical	Provides a lens to predict, identify and describe key features likely to influence implementation and to generalise and predict outcomes
Empirical	Information about effectiveness and cost effectiveness
Experiential	Understanding about the process of implementation and the influence of context

Walshe K. *Int J Qual Health Care* 2009;21:153-9.

- Randomised controlled trials
 - Cluster RCTs
- Non-randomised controlled trials (NRCTs)
- Controlled before-after studies
- Interrupted time series (difference in difference, repeated measures)

Hybrid designs

- 1) Effects of a clinical intervention on relevant outcomes while observing and gathering information on implementation
- 2) Dual testing of clinical interventions and implementation strategies
- 3) Testing an implementation strategy while observing and gathering information on the clinical intervention's impact on relevant outcomes

Curran et al. *Med Care* 2012;50:217-26.

Some challenges

- Timeliness
- Evaluating complex implementation interventions
- Use of theory
- Cost effectiveness
- Reporting

Summary

- Evolving field of research
- Inherently interdisciplinary
- Focus not only on effects of implementation but on
 - How
 - Why
 - And at what cost