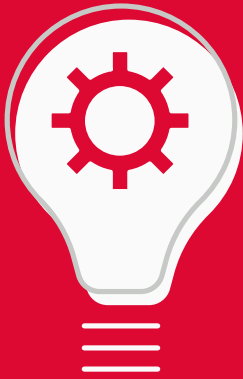


Explain THIS

# Implementation Science



**THIS.**Institute

## About the series

Explain THIS is a series of short, accessible microlearning resources designed to help people working in healthcare improvement understand key concepts and approaches. Whether you're new to improvement work or looking to refresh your knowledge, Explain THIS offers clear explanations and links to further resources to support your learning. Explore the series here:

<https://ths.im/explain-this>

## About this resource

This resource offers clear, practical guidance on the key concept of implementation science in healthcare improvement. It defines key terms and areas of focus, and introduces theories, frameworks, and practical strategies to help teams successfully implement improvements. The resource also includes practical questions to guide the planning, doing, and evaluation of implementation, alongside links to further reading for deeper insights. Whether you're starting a new improvement initiative or looking to expand and sustain existing work, this guide provides actionable advice to support your efforts.

## Definitions

A healthcare intervention might be shown to be effective – but that doesn't guarantee it will become used in routine practice. In this gap between research and real-world practice sits **implementation science**.

Implementation science is the study of how to support the uptake of evidence-based interventions in healthcare practice and policy. It has three areas of focus.

1. Understanding what influences implementation – the systems, behaviours, and practices.
2. Evaluating strategies to address the factors that block or support implementation.
3. Looking at how implementation happens – what gets implemented, when, why, and how?

Any kind of implementation means change. To support this, it's important to clearly understand:

What is being introduced?

Where is the change happening?

Who is involved?

What processes and resources are needed?

What is the wider economic, political, and social environment?

# Theories, frameworks, and practical strategies

A number of theories and frameworks can help you anticipate, identify, and describe the key features that will influence change. Choosing the right one for your intervention is not always straightforward, but it helps to start by thinking about the change you want to see and how a particular approach might work in your setting. The questions at the end of this resource can help to guide you.

Below are five widely used frameworks that can be used on their own or in combination. You might find them useful to:

- Understand and explain what influences implementation outcomes
- Evaluate implementation efforts
- Guide the process of implementation.

## Useful for changing behaviours

### Theoretical Domains Framework (TDF)<sup>2</sup>

A framework to identify factors that influence behaviour, useful for when a more detailed approach is needed. Organised into 14 domains covering factors including knowledge, skills, beliefs, motivation, and context. Often used alongside COM-B.

Example: East London NHS Foundation Trust used TDF to explore why evidence-based guidelines for pressure ulcer prevention and management were inconsistently implemented.

<https://www.elft.nhs.uk/research/resource/barriers-and-enablers-implementation-evidence-based-practice-pressure-ulcer>

## Useful for changing behaviours

### COM-B<sup>1</sup>

A widely used and accessible model that can be used at individual and team level, as well as at organisation level. COM-B focuses on three components and how they interact to change a behaviour:

- C**apability – does the person have the knowledge and skills?
- O**pportunity – are there the right conditions and resources?
- M**otivation – does the person want to do the new behaviour?

Example: NHS England's infection prevention and control education framework used the COM-B model to identify what was preventing target behaviours for infection prevention and control.

<https://www.england.nhs.uk/long-read/infection-prevention-and-control-education-framework/#appendix-2-the-com-b-model-what-is-preventing-the-target-behaviour>

## Useful for understanding context and wider systems

### Consolidated Framework for Implementation Research (CFIR)<sup>3</sup>

Provides a structure for understanding the contexts where implementation will happen. Focuses on the:

- Characteristics of the intervention
- Outer setting – values, policies, financing, etc.
- Inner setting – culture, resources, communications, etc.
- Characteristics of individuals
- Implementation process.

Example: The community rapid intervention service (CRIS), developed in North Staffordshire and Stoke-on-Trent, used CFIR to evaluate the service.

<https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-023-09864-z>

## Useful for making a new practice routine

### Promoting Action on Research Implementation in Health Services (PARIHS)<sup>4</sup>

Looks at the interaction of three core elements for moving research into practice at an organisational (rather than individual) level:

- The strength and nature of the evidence
- The context or environment where the evidence is used
- How implementation is carried out.

Example: Multiple case study of four implementation projects showing how the framework has been used by diverse implementation project teams.

<https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-05354-8>

## Useful for evaluating interventions

### RE-AIM<sup>5</sup>

A framework for planning and evaluation of interventions according to five key constructs:

- **R**each
- **E**ffectiveness
- **A**doption
- **I**mplementation
- **M**aintenance.

Example: RE-AIM was used to evaluate a diabetes prevention programme in primary care.

[https://www.primary-care-diabetes.com/article/S1751-9918\(23\)00096-7/fulltext](https://www.primary-care-diabetes.com/article/S1751-9918(23)00096-7/fulltext)

1 <https://doi.org/10.1186/1748-5908-6-42>

2 <https://doi.org/10.1186/1748-5908-7-37>

3 <https://doi.org/10.1186/1748-5908-4-50>

4 <https://doi.org/10.1136/qshc.7.3.149>

5 <https://doi.org/10.2105/qjph.89.9.1322>

## Practical strategies

Implementation strategies can be used to put the intervention into action. They can be used across various settings and contexts. Using them in combination is often more effective. Some commonly used strategies include:

- Audit and feedback (such as performance targets and an action plan)
- Computerised reminders to follow the new process or behaviour
- Educational meetings and training
- Facilitation by experts to bring about change
- Financial incentives that target behaviours
- Local opinion leaders reinforcing why change is needed
- Printed educational materials to display and distribute
- Quality improvement collaboratives – groups that come together to learn, apply, and share improvement methods.

# Top tips for implementation science

## Select your framework or theory

Choosing the right one for your intervention isn't always easy. Start by thinking about the change you want to see, how a particular approach might work in your setting, and what has worked well in the past.



## Don't overlook challenges

Challenges may arise that aren't covered by your chosen theory or framework. Be prepared to consider a broad range of approaches to tackle these.



## Consider the context

Think about the wider environment where the implementation will be carried out. This could include things such as the physical setting, resources available, policies, and culture.



## Be prepared to adapt

Health systems are not fixed structures, they are constantly evolving and adapting. You may also need to adjust your approach in response to insights and learnings that emerge from your implementation work.



## Choose your practical strategies

There are lots of strategies you can use to bring about change. Individually these may have a modest impact but can be more effective when used in combination.





# Useful resources

The following resources have been selected to provide further information for those leading healthcare improvement.

## **THIS Institute**

Paul Wilson and Roman Kislov  
Implementation Science

<https://doi.org/10.1017/9781009237055>

## **Centre for Effective Services** An Introductory Guide to Implementation

<https://implementation.efficientservices.org/>

## **NIHR Applied Research Collaboration Wessex**

Web-based Implementation Toolkit  
<https://www.arc-wx.nihr.ac.uk/web-implementation-toolkit>

## **Cancer Prevention and Control Research Network**

Putting Public Health Evidence into Action: Module 5: Implement Evidence-based Interventions  
<https://cpcrn.org/training>

## **King's Improvement Science/ University of East Anglia Implementation Outcome Repository**

<https://implementationoutcome.repository.org/>

## **The Center for Implementation** Creating impact with evidence-based implementation – free online course

<https://thecenterforimplementation.teachable.com/p/inspiring-change>

## **THIS Institute** Chrysanthi Papoutsis, Trisha Greenhalgh, Sonja Marjanovic Approaches to Spread, Scale-Up, and Sustainability

<https://doi.org/10.1017/9781009326049>

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