



# Improvement & Behaviour Change

Professor Brian Williams



# The Challenge of Behaviour for Improvement Science

*Professional Behaviour: How do we achieve and maintain changes in professional behaviour?*

**Both are crucial to achieving and maintaining implementation at scale**

*... on quality of evidence based behaviour change techniques by professionals?*





- 1) Review of interventions to support sustained behaviour change
- 2) Review of effective techniques for interventions for health professionals to support patient/client behaviour change.
- 3) Review of barriers & facilitators to professional implementation of behaviour change techniques

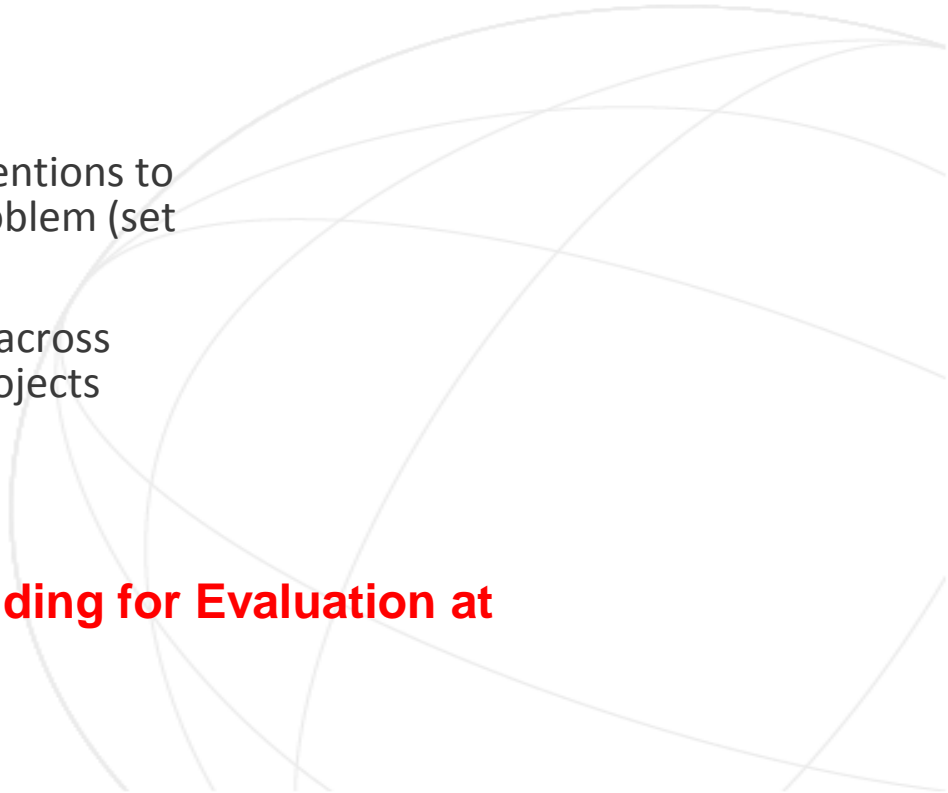


Co-production of interventions to address fundable problem (set criteria)

Testing & modelling across improvement projects



**Submissions for Large Scale Funding for Evaluation at Scale**





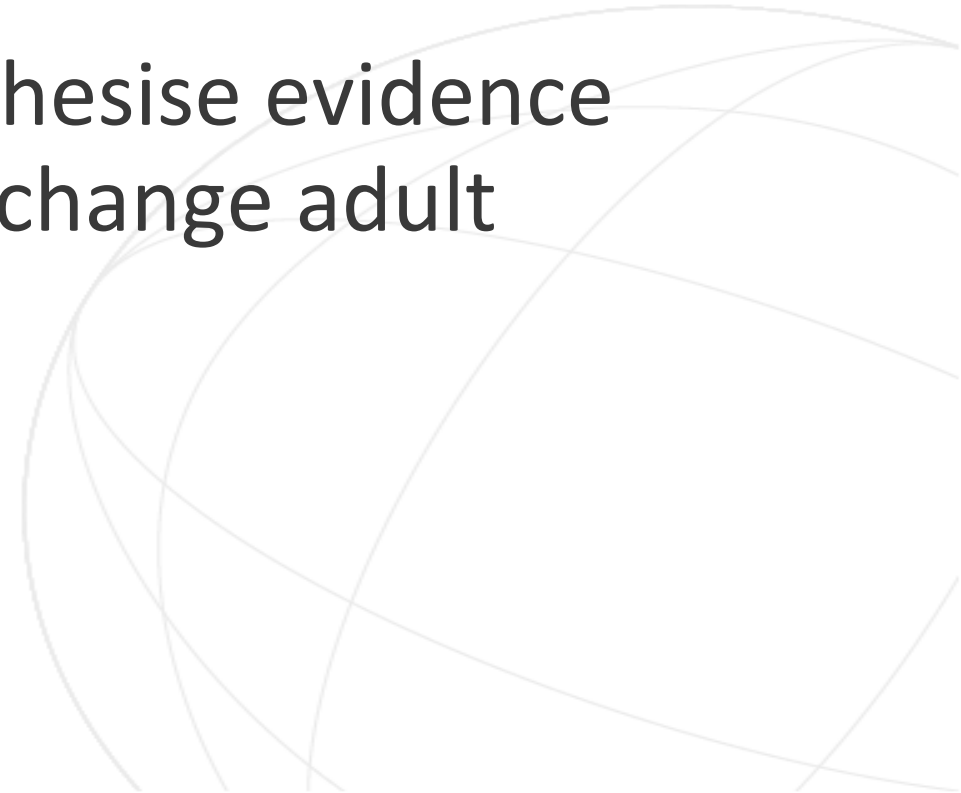
# *Effectiveness of Motivational Interviewing on Adult Behaviour Change: An Overview Of Reviews*

SU Dombrowski, P Campbell, H Cheyne, M Maxwell, RE O'Carroll, A Pollock, B Williams, H Frost



# Aim

To identify, appraise and synthesise evidence on the effectiveness of MI to change adult health behaviour





# Review topics

## **1. Stopping an unhealthy behaviour (n=32)**

E.g. Alcohol (n=12), Smoking (n=8)

## **2. Promoting a health behaviour (n= 21)**

E.g. Medication adherence (n=7), Safe sex (n=3)

## **3. Multiple health behaviours/problems (n=8)**

E.g. Diet, exercise, diabetes and oral health (n=1),  
Alcohol, drugs diet and exercise (n=1)

## **4. Behaviour change in specific settings (n=5)**

E.g. Primary care (n=3), Medical care setting (n=1)



# Conclusions

Moderate quality evidence for:

- short-term effectiveness for reducing substance abuse (alcohol and drugs)
- short and long-term effectiveness (longest duration 6-12 months) for smoking abstinence
- Increasing physical activity levels for some chronic health conditions



# Long-term effects of healthcare professional behaviour change interventions: a systematic review of Cochrane reviews

*Julie McLellan, Pauline Campbell, Helen Frost, Anna Gavine,  
Margaret Maxwell, Ronan O'Carroll, Justin Presseau, Brian Williams,  
Stephan U Dombrowski*



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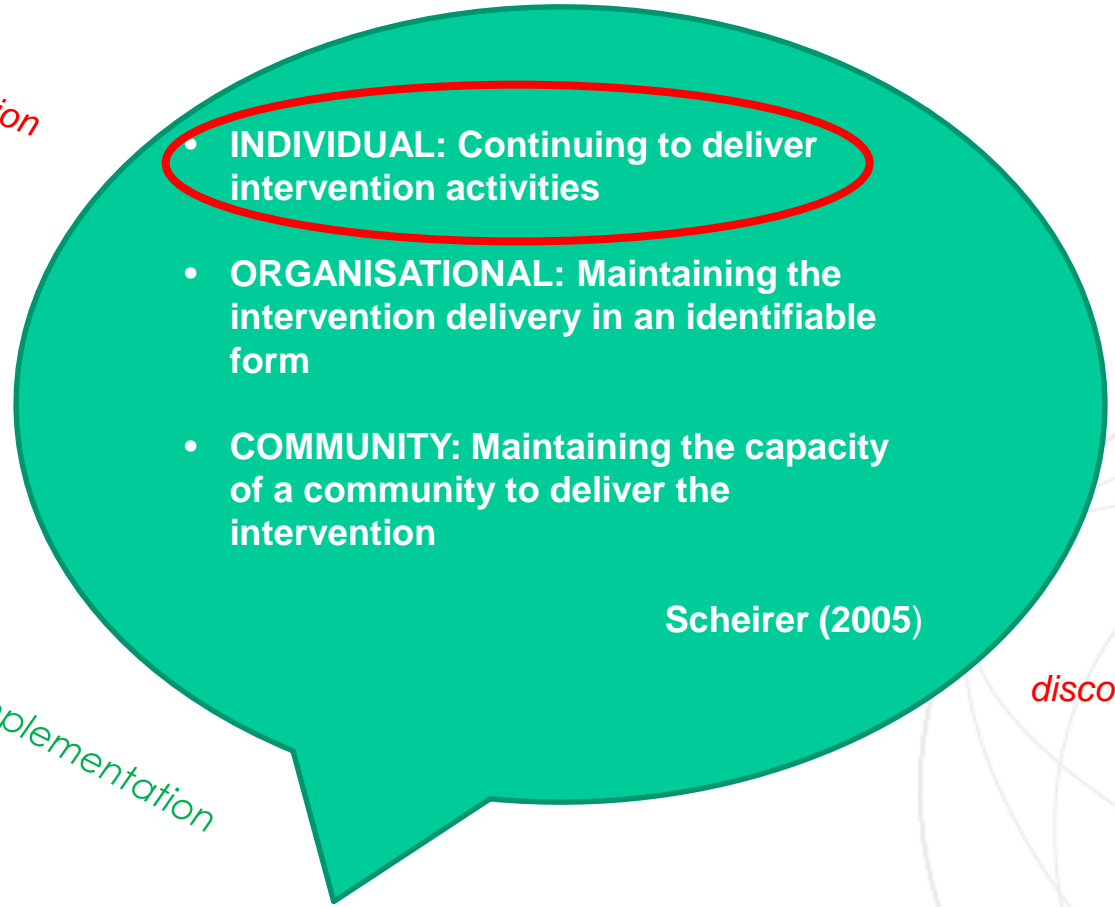
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# What is sustainability?



*routinisation*

*maintenance*

*durability*

*long-term/follow-up implementation*

*de-adoption*

*sustained/continued implementation*

*institutionalisation*

*discontinuation*

Wiltsey Stirman S, Kimberly J, Cook N, Calloway A, Castro F, Charns M. The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. Implementation science : IS. 2012;7:17. doi:10.1186/1748-5908-7-17.



# Research Aim and Objective

**Aim:** Examine sustainability of healthcare professional behaviour change interventions at the individual level

**Objective:** Overview of reviews (Becker & Oxman, 2011)



Becker LA, Oxman, A.D. Chapter 22: Overview of reviews. In: Higgins JPT, Green, S., editor. Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 [updated March 2011]. <http://www.cochrane-handbook.org> The Cochrane Collaboration; 2011.



# Methods

## Primary Outcome

Sustained HCP clinical behaviour:

- Rate/s of performing prevention/diagnosis, and treatment behaviours
- Assessment of adherence/fidelity to procedures or protocols



SISCC  
Scottish Improvement Science  
Collaborating Centre

17 reviews

400 trials

40 reported data  
data >12 months

**10%**





# Review references to sustainability

13/17 did not mention any aspects of sustainability

4/17 mentioned sustainability:

- 2 commented on uncertainty of sustainability

- 1 highlights the importance of sustainability

- 1 discussed measurement of sustainability



# Key Points

Few studies of HCP behaviour change interventions report long-term outcomes (+12M)

Little focus on sustainability of HCP behaviour change interventions, at both the review and trial level

Why is this?

Should there be a formal requirement for Cochrane reviews to comment on sustainability?



# Next Steps?







# What Works and What Does Not Work in term of Sustainability?

## **A multiple case study of sustainability?**

- *Sustainability has been achieved*
- *Sustainability has not been achieved*

## **Sustainability of what?**

- Function, form or objective?







Thank-You

