



EVIDENCE SYNTHESIS  
IRELAND



Cochrane  
Ireland

## Evidence Synthesis Ireland Fellowship Scheme

### Review Identification Form

#### Review Centre/Group Mentor

Lead contact and primary mentor: Dr Chris Stinton

Second mentor: Professor Sian Taylor-Phillips

Dr Stinton, a Senior Research Fellow with over 10 years' experience leading systematic reviews, will provide in-depth hands-on support for every stage of development and work, with Professor Taylor-Phillips meeting regularly to give broader guidance and mentoring.

#### Review title

When do indirect evidence linkages between screening interventions and health outcomes accurately approximate direct evidence?

#### Review type and methods–

This project will employ systematic review methods. We will identify examples of potential screening programmes where there is both direct and indirect evidence linking screening to health outcomes by systematically reviewing evaluations completed by 22 national screening organisations/committees in 16 countries. Reviews will be sorted by disease area, retaining only those with direct RCT evidence to mortality. Drivers of agreement between direct and indirect evidence will be extracted. Case studies will be produced showing when indirect evidence may lead to inappropriate conclusions.

The Fellow will learn all the elements of conducting a systematic review, including developing the inclusion criteria and search strategy, running the searches, assessing documents against the inclusion criteria, extracting data, synthesising the evidence, and writing up the results.

#### Please confirm that no existing review exists that addresses the review question

No existing review addresses the research question.

#### Review information

This review is part of a 5-year package of work funded through a National Institute for Health and Care Research Professorial Fellowship to Sian Taylor-Phillips. It was designed together with patient and public contributors, with this collaboration spanning the life of the work and beyond (from identifying and prioritising ideas at the development stage, to evaluating the impact of PPI involvement, and co-producing a future funding application). The end-users of the work are health screening policy-makers, and ultimately

people attending health screening programmes. The overall 5-year work package is collaborative with the UK National Screening Committee, the Irish National Screening Advisory Committee (and HIQA), and the Canadian Task Force on Preventive Health Care. The broad aims are both to improve evidence synthesis methods used internationally, and for collaboration between countries to deliver evidence synthesis of value to all. Therefore, such a placement would contribute to strengthening links across countries, and would provide opportunities for future collaboration to the person selected.

## Review details

**Topic:** Evidence Synthesis methods to support policy-making.

**Background:** Health screening programmes are offered to hundreds of millions of people worldwide. Screening has both benefits (e.g. saving lives) and harms (e.g. incorrect test results or unnecessary treatments). National policy-makers decide which screening programmes to implement, and for whom, based on evidence synthesis. The current evidence synthesis process has significant limitations, which causes errors in estimating the benefits and harms of screening which underpin these decisions. Sometimes there aren't enough (or even any) studies that give us direct evidence about the benefits and harms of screening. When this happens, we can combine information from smaller studies to give some indirect evidence. But linking those smaller studies may introduce bias and mislead policymakers. We do not currently know when it is safe to link smaller studies without this happening.

**Objectives:** The overarching objective of this work package is to produce methodological and research recommendations for the use of indirect evidence in screening reviews, by synthesising current methodology, identifying drivers of discordance between direct and indirect evidence through disease-specific case studies, and evaluating the impact of combinations of these drivers by population group for accuracy of review conclusions.

**Research question:** When do indirect evidence linkages between screening interventions and health outcomes accurately approximate direct evidence?

**PICO:** The PICO is in development.

## Review current status

The review has not yet started.

## Any specific/desirable requirements for fellow (e.g. clinical expertise, methodological expertise)

Essential: knowledge of (and interest in) health screening.

Desirable: expertise in the methods used to health screening programmes.

## Estimated start and completion dates

01.01.2023 – 01.01.2025