



Evidence Synthesis Programme (ESP) Logic Model

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The Evidence Synthesis Programme (ESP) is part of the [National Institute for Health and Care Research \(NIHR\)](#). As such, it aims to contribute to the NIHR's mission of improving the health and wealth of the nation by generating high-quality evidence syntheses (ES) to support evidence-informed health and care policy and practice. More [information about the programme](#) can be found on the NIHR website.

A logic model is a graphical way to show how an activity, programme or intervention is expected to work and bring about the benefits and changes it intends to achieve. By summarising the core elements, a logic model can then be used to support programme planning, implementation and evaluation. NIHR logic models represent in a linear flow diagram the key activities, outputs, outcomes and impacts of each funding programme as a series of logical steps.

This logic model sets out the essential elements of, and pathway to, impact for the NIHR ESP. Evidence syntheses are research projects that use formal techniques to bring together, evaluate and combine data from multiple studies to summarise and make sense of the existing body of research evidence on a particular topic.

Inputs

The first step outlined in the logic model focuses on 'inputs', i.e., the resources needed to undertake programme activities. Primary inputs for the programme are

- NIHR funding
- funding from the devolved nations
- NIHR coordinating centre resources
- stakeholder time and expertise
- UK research community expertise and capacity and funding from other sources

Activities

Inputs feed into the second stage of the logic model, activities. Activities are the actions that NIHR and the funded research community undertake to help achieve the programme's aims and objectives. Together, inputs and activities represent NIHR's planned work.

The NIHR ESP team works closely with stakeholders to identify key questions and issues in health and social care that can be addressed by evidence synthesis. This includes direct elicitation of topics from policy makers to ensure that funded evidence syntheses respond to policy and practice needs.

ESP funds evidence synthesis groups (ESGs) and Technology Assessment Review (TAR) teams across the UK to produce independent, timely and rigorous reviews across a broad spectrum of topic areas, using a range of methodologies. As TAR teams and ESGs are standing groups funded on call-off contracts, topics and projects can be taken on without delay and assigned to groups with best matched skills and experience. For example, TAR teams critique evidence submissions of new medicines and diagnostics to support National Institute for Health and Care Excellence (NICE's) and other policy maker's decision-making processes. Both groups and allocated projects are actively monitored and supported by a NIHR team that provides advice and expertise regarding, for example, risks, appropriate methodologies, and stakeholder, patient and public engagement.

NIHR supports transparent research management and publication of knowledge, with information about funded research teams, projects, and their publications being openly accessible via for example the NIHR [website](#) and [NIHR Journals Library](#).

The programme also builds research capacity through initiatives to broaden, strengthen and upskill the evidence synthesis research community. For example, the programme provides dedicated funds to TAR teams to enhance the UK's overall capacity and capabilities in health technology assessment that is used for training activities, gaining formal qualifications, and general staff development.

Outputs

The next step of the flow diagram focuses on the range of 'outputs', that result directly from the undertaken activities. Outputs are generated throughout the lifetime of each award and within five years of its completion. For the Evidence Synthesis Programme, such outputs include

- academic outputs published in peer-reviewed journals and/or in the [NIHR Journals Library](#)
- outputs tailored to key audiences, for example written research summaries or blogs developed specifically for lay audiences or articles for professional briefings and newsletters
- information provided directly to policy customers including interim results, final reports and presentations
- the existence of Evidence Synthesis Groups (ESG) and Technology Assessment Review (TAR) teams
- formation of responsive expert ES research capacity through these groups and capacity building activities
- active stakeholder partnerships including with policy makers in all four nations, NICE, NHS organisations and with patient and service user organisations

Cross-cutting activities

Some activities that enable the intended changes span across several steps of the logic model:

- stakeholder collaboration: The programme works closely with stakeholders such as policy makers, the NHS, charities, public health and social care providers, patients, carers specific communities and/or members of the general public to ensure that evidence syntheses are relevant to evidence and service users
- co-creation of research: funded NIHR awards are required actively involve professionals, patients, carers, specific communities and/or members of the general public in the research process wherever possible. It is the ambition of the programme that evidence syntheses are co-produced with relevant evidence and service users from diverse backgrounds
- knowledge exchange and targeted dissemination takes place across the project lifecycle
- increasing pool of knowledge: activities, outputs and outcomes produced through research contribute to an increasing pool of knowledge that underpins health and social care decision-making, policy and practice, or identifies evidence gaps that could be addressed by new research

Outcomes

Outcomes are the changes that the programme expects to occur as a result of its activities. Short-term outcomes are those that take place in less than 5 years, and medium-term outcomes in 5-10 years.

Scientific advancements

In the short term, evidence syntheses lead to scientific advancements. This includes an improved understanding of the existing research evidence on key health and social care topics, as well as the strength of this evidence.

Further, understanding the full body of knowledge on a topic helps identify where new research studies are needed as it exposes gaps and uncertainties in the current body of evidence. Knowledge generated can also inform the design of new research studies by highlighting, for example, the type of trial that should be conducted or target group that should be included to address the identified gaps. Awards funded by the programme also advance evidence synthesis methodology.

In the short- to medium-term, these scientific advancements contribute to the UK's world leading reputation in rigorous evidence synthesis in health and care research.

Uptake and use of research

Activities and outputs are also expected to result in an increased uptake of research in the short-term as the produced syntheses are linked to the needs of health and social care users and relevant to policy and practice. It is also expected that these syntheses [consider health inequalities](#) by for example highlighting where evidence on under-represented groups such as ethnic minorities, disabled people, LGBTQ+ people, and people from specific geographic locations or socio-economic statuses is missing.

As a result, it is assumed that NIHR-funded evidence syntheses provide decision makers in policy and practice with clear, concise, credible and timely evidence on which to base their decisions.

In the short- to medium-term, NIHR ESP-funded groups and projects are consequently expected to inform the development of national and international guidelines and decision-making at policy level. By informing practice guidelines and concisely summarising research evidence on a given topic, the produced syntheses are also expected to support clinicians and practitioners in evidence-informed practice.

Enhanced research capacity

Funding dedicated research teams, building stakeholder partnerships and providing dedicated capacity-building resources results in enhanced research capacity. This means that the ESP research community is well-attuned to stakeholder needs and can quickly respond to the need for evidence synthesis on key topics in health and social care.

Training, networking, and stakeholder involvement facilitated by the programme also increases researchers' understanding of how research is used in practice. In turn, this is assumed to motivate researchers to take account of how research findings might be implemented when conducting their research.

At the same time, working in partnership with stakeholders in the production of evidence syntheses is expected to improve stakeholder ability to understand and use research evidence in the short- to medium-term.

Together with the ability of ES groups and teams to conduct timely evidence syntheses, this increased understanding is expected to contribute to an increased demand for syntheses to inform policy and practice.

Impacts

Impacts, or long-term outcomes, are the anticipated broader (direct and indirect) changes or benefits for organisations, communities, systems and wider society expected to result from the programme's contribution via its activities and portfolio of funded research. These are expected to become apparent in approximately 10-25 years.

For the Evidence Synthesis Programme, the overarching long-term benefit is the adoption of evidence-based health policies and practice. These are expected to improve:

- the quality, effectiveness and cost-effectiveness of health and social care provision
- the experience of health and social care services
- NIHR access to cost effective drugs and diagnostics
- investment decisions in health and social care

In turn, these improvements contribute to reduced health inequalities, a more effective and efficient health and social care system; and thus ultimately to the health and wealth of the nation.

Contributions and acknowledgements

The NIHR supports the principles of open research, including full and appropriate recognition of the many varied contributions to the creation of knowledge. To support this, we use the [CRedit taxonomy](#) to accurately reflect how each team member has brought their knowledge and skills to the development and delivery of this work. Those that have contributed to this work are listed alphabetically.

- Sally Bailey: Conceptualization, Writing – review & editing
- Adam Lockwood: Conceptualization, Project administration, Funding acquisition, Methodology, Supervision, Writing – review & editing
- Rob Squire: Conceptualization, Writing – review & editing
- Lesley Stewart: Conceptualization, Writing – review & editing
- Sarah Thomas: Conceptualization, Funding acquisition, Methodology, Supervision
- Insa Wemheuer: Project administration, Visualization, Writing – original draft, Writing – review & editing

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Competing interests

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