NIHR | National Institute for Health and Care Research

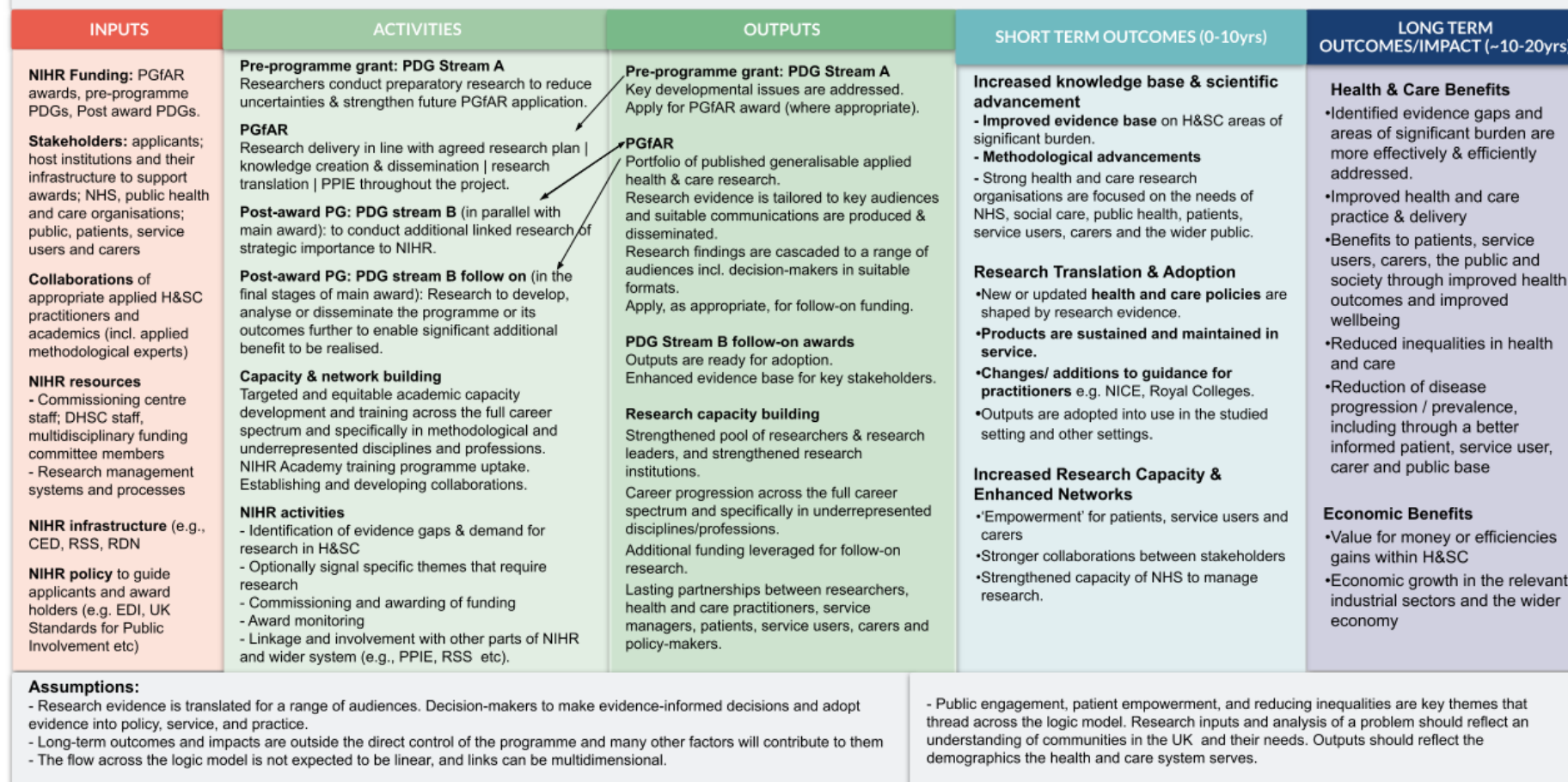# Programme Grants for Applied Research (PGfAR) Logic Model

Aim: To deliver research findings that will lead to clear and identifiable patient/service user or carer benefits, typically through promotion of health and well-being, prevention of ill health, and optimal care and disease management (including safety and quality). It funds collaborative, multidisciplinary research in an area of priority or need for the NHS, public health or the social care sector, with particular emphasis on health and social care areas that cause significant burden, where other research funders may not be focused, or where insufficient funding is available.

INPUTS	ACTIVITIES	OUTPUTS	SHORT TERM OUTCOMES (0-10yrs)	LONG TERM OUTCOMES/IMPACT (~10-20yrs)
NIHR Funding: PGfAR awards, pre-programme PDGs, Post award PDGs. **Stakeholders:** applicants; host institutions and their infrastructure to support awards; NHS, public health and care organisations; public, patients, service users and carers **Collaborations** of appropriate applied H&SC practitioners and academics (incl. applied methodological experts) **NIHR resources** - Commissioning centre staff; DHSC staff, multidisciplinary funding committee members - Research management systems and processes **NIHR infrastructure** (e.g., CED, RSS, RDN) **NIHR policy** to guide applicants and award holders (e.g. EDI, UK Standards for Public Involvement etc)	**Pre-programme grant: PDG Stream A** Researchers conduct preparatory research to reduce uncertainties & strengthen future PGfAR application. **PGfAR** Research delivery in line with agreed research plan | knowledge creation & dissemination | research translation | PPIE throughout the project. **Post-award PG: PDG stream B** (in parallel with main award): to conduct additional linked research of strategic importance to NIHR. **Post-award PG: PDG stream B follow on** (in the final stages of main award): Research to develop, analyse or disseminate the programme or its outcomes further to enable significant additional benefit to be realised. **Capacity & network building** Targeted and equitable academic capacity development and training across the full career spectrum and specifically in methodological and underrepresented disciplines and professions. NIHR Academy training programme uptake. Establishing and developing collaborations. **NIHR activities** - Identification of evidence gaps & demand for research in H&SC - Optionally signal specific themes that require research - Commissioning and awarding of funding - Award monitoring - Linkage and involvement with other parts of NIHR and wider system (e.g., PPIE, RSS etc).	**Pre-programme grant: PDG Stream A** Key developmental issues are addressed. Apply for PGfAR award (where appropriate). **PGfAR** Portfolio of published generalisable applied health & care research. Research evidence is tailored to key audiences and suitable communications are produced & disseminated. Research findings are cascaded to a range of audiences incl. decision-makers in suitable formats. Apply, as appropriate, for follow-on funding. **PDG Stream B follow-on awards** Outputs are ready for adoption. Enhanced evidence base for key stakeholders. **Research capacity building** Strengthened pool of researchers & research leaders, and strengthened research institutions. Career progression across the full career spectrum and specifically in underrepresented disciplines/professions. Additional funding leveraged for follow-on research. Lasting partnerships between researchers, health and care practitioners, service managers, patients, service users, carers and policy-makers.	**Increased knowledge base & scientific advancement** - **Improved evidence base** on H&SC areas of significant burden. - **Methodological advancements** - Strong health and care research organisations are focused on the needs of NHS, social care, public health, patients, service users, carers and the wider public. **Research Translation & Adoption** • New or updated **health and care policies** are shaped by research evidence. • **Products are sustained and maintained in service.** • **Changes/ additions to guidance for practitioners** e.g. NICE, Royal Colleges. • Outputs are adopted into use in the studied setting and other settings. **Increased Research Capacity & Enhanced Networks** • 'Empowerment' for patients, service users and carers • Stronger collaborations between stakeholders • Strengthened capacity of NHS to manage research.	**Health & Care Benefits** • Identified evidence gaps and areas of significant burden are more effectively & efficiently addressed. • Improved health and care practice & delivery • Benefits to patients, service users, carers, the public and society through improved health outcomes and improved wellbeing • Reduced inequalities in health and care • Reduction of disease progression / prevalence, including through a better informed patient, service user, carer and public base **Economic Benefits** • Value for money or efficiencies gains within H&SC • Economic growth in the relevant industrial sectors and the wider economy

Assumptions:
- Research evidence is translated for a range of audiences. Decision-makers to make evidence-informed decisions and adopt evidence into policy, service, and practice.
- Long-term outcomes and impacts are outside the direct control of the programme and many other factors will contribute to them
- The flow across the logic model is not expected to be linear, and links can be multidimensional.

- Public engagement, patient empowerment, and reducing inequalities are key themes that thread across the logic model. Research inputs and analysis of a problem should reflect an understanding of communities in the UK and their needs. Outputs should reflect the demographics the health and care system serves.

Programme Grants for Applied Research (PGfAR) Logic Model

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The National Institute of Health and Care Research (NIHR) funds, enables and delivers world-leading health and social care research that improves people's health and wellbeing, and promotes economic growth. Programme Grants for Applied Research (PGfAR) is an NIHR programme that funds collaborative, multidisciplinary research in an area of priority or need for the NHS, public health or the social care sector, with a particular emphasis on health and social care areas that cause significant burden.

PGfAR aims to deliver research findings that will lead to clear and identifiable patient, service user or carer benefits, typically through promotion of health and wellbeing, prevention of ill health, and optimal care and disease management (including safety and quality).

It funds collaborative, multidisciplinary research in areas of priority or need for the NHS, public health or the social care sector. Particular emphasis is placed on health and social care areas that cause significant burden where other research funders may not be focused, or where insufficient funding is available, with the aim of solving these health and social care challenges.

A logic model is a useful tool that can be used for planning, implementation and evaluation of a programme. It is a simple way to summarise the core elements of a funding programme and visually represent the theory (i.e. 'how it's supposed to work') of how a programme intends to bring about the desired benefits and changes.

NIHR logic models comprise the funding programme resources (or 'inputs') and activities that NIHR undertakes, which then produce outputs (or direct results). These outputs accrue incrementally over time and, alongside engagement activities, lead to the anticipated short-term outcomes, and eventually long-term outcomes and impacts.

A logic model was created to visually represent PGfAR. It sets out the essential elements of and pathway to impact for the NIHR funding programme [Programme Grants for Applied Research](#). It was created for the Department of Health and Social Care (DHSC) by the PGfAR programme team in collaboration with the Monitoring, Evaluation and Learning team at the NIHR Central Commissioning Facility (NIHR CCF) with guidance and input from the PGfAR steering committee. The logic model is described below.

Inputs

The first component of the logic model focuses on inputs, the resources which are put into the programme in order to undertake the activities which produce the outputs. The inputs are:

- NIHR funding:
  - PGfAR awards
  - Pre-programme Programme Development Grants (PDGs)
  - Post award PDGs
- Stakeholders:
  - Applicants
  - Host institutions and their infrastructure to support awards
  - NHS, public health organisations and care organisations
  - Public, patients, service users and carers
- Collaborations of appropriate applied health and social care (H&SC) practitioners and academics (including applied methodological experts)
- NIHR resources:
  - Commissioning centre staff
  - DHSC staff
  - Multidisciplinary funding committee members
  - Research management systems and processes
- NIHR infrastructure:
  - For example, Centre for Engagement and Dissemination (CED), Research Support Service (RSS), Research Delivery Network (RDN)
- NIHR policy to guide applicants and award holders (for example, equality, diversity and inclusion (EDI), UK Standards for Public Involvement and others).

Activities

The above inputs feed into the second component of the logic model which consists of the activities conducted by the award holders and NIHR:

- NIHR activities:

- ○ Identification of evidence gaps & demand for research in health and social care
  - ○ Commissioning and awarding of funding
  - ○ Award monitoring
  - ○ Linkage and involvement with other parts of NIHR and wider system (for example with patient and public involvement and engagement (PPIE), Research Support Service (RSS) and so forth).
- Pre-programme grant: PDG Stream A
  - ○ Researchers conduct preparatory research to reduce uncertainties & strengthen future PGfAR applications.
- PGfAR:
  - ○ Research delivery in line with agreed research plan
  - ○ Knowledge creation and dissemination
  - ○ Research translation
  - ○ Patient and public involvement and engagement (PPIE) throughout the project.
- Post-award Programme Grant (PG): PDG Stream B
  - ○ In parallel with the main award, to conduct additional linked research of strategic importance to the NIHR.
- Post-award Programme Grant (PG): PDG Stream B follow-on
  - ○ In the final stages of main award research to develop, analyse, and disseminate the programme or its outcomes further, in order to enable significant additional benefit to be realised for the NHS, public health, social care, patients, service users, carers or the wider public.
- Capacity and network building:
  - ○ Funding for targeted and equitable academic capacity development and training across the full career spectrum and specifically in methodological and underrepresented disciplines and professions
  - ○ NIHR Academy training programme uptake
  - ○ Establishing and developing collaborations.

Outputs

The outputs expected to result from the inputs and activities are detailed below.

Outputs from Pre-programme grant: PDG Stream A
- Key development issues are addressed
- Apply for PGfAR award (where appropriate).

Outputs from PGfAR awards:
- Portfolio of published generalisable applied health and care research
- Research evidence tailored to key audiences and suitable communications are produced and disseminated

- Research findings are cascaded to a range of audiences including decision-makers in suitable formats
- Award-holders apply, as appropriate, for follow-on funding.

Outputs from follow-on PDG B awards:
- Outputs are ready for adoption
- Enhanced evidence base for key stakeholders.

Research capacity building outputs:
- Strengthened pool of researchers and research leaders, and strengthened research institutions
- Career progression across the full career spectrum and in underrepresented disciplines and professions
- Additional funding is leveraged for follow-on research
- Lasting partnerships are created between researchers, health and care practitioners, service managers, patients, service users, carers and policy-makers.

Short-Term Outcomes

The inputs, activities and outputs are expected to create changes in the short and long term. The inputs, activities and outputs are within the control of PGfAR, whereas the short-term outcomes these create are within the programme's sphere of influence rather than control, and the long-term impacts are outside the sphere of direct control or influence as there are many other factors which contribute to them.

With that in mind, as a result of all the inputs, activities and outputs, we might expect the following outcomes in the short-term of nought to ten years.

- Increased knowledge base & scientific advancement:
  - Improved evidence base on health and social care areas of significant burden.
  - Methodological advancements
  - Strong health and care research organisations are focused on the needs of the NHS, social care, public health, patients, service users, carers and the wider public.
- Research translation and adoption:
  - New or updated health and care policies are shaped by research evidence.
  - Products are sustained and maintained in service
  - Changes and additions to guidance for practitioners, for example NICE, or Royal Colleges
  - Outputs are adopted into use in the studied setting and other settings.

- Increased research capacity and enhanced networks:
    - Empowerment for patients, service users and carers
    - Stronger collaborations between stakeholders
    - Strengthened capacity of NHS to manage research.

Long-term outcomes / impacts

Long term outcomes are those which might be seen from ten years onwards. They are changes which the programme hopes to contribute towards and will be influenced by multiple other factors.

- Health and Care Benefits:
    - Identified evidence gaps and areas of significant burden are more effectively and efficiently addressed
    - Improved health and care practice and delivery
    - Benefits to patients, service users, carers, the public and society through improved health outcomes and improved wellbeing
    - Reduce inequalities in health and care
    - Reduction of disease progression / prevalence, including through a better informed patient, service user, carer and public base.
- Economic benefits:
    - Value for money or efficiency gains within health and social care.
    - Economic growth in the relevant industrial sectors and the wider economy.

Assumptions

For PGfAR to be delivered and achieve its outcomes through the theory described above, it is assumed that the following remains true through the course of the programme:
- Research evidence is translated for a range of audiences
- Decision-makers make evidence-informed decisions and adopt evidence into policy, service and practice
- Long-term outcomes and impacts are outside the direct control of the programme and many other factors will contribute to them, yet PGfAR hopes to achieve net health benefits, and efficiency through uptake of evidence and adoption of findings
- Public engagement, patient empowerment, and reducing inequalities are key themes that thread across the logic model. Research inputs and analysis of a problem should reflect an understanding of communities in the UK and their needs. Outputs should reflect the demographics the health and care system serves

- The flow across the logic model is not expected to be linear, and links can be multidimensional.

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Competing interests

Keywords