NIHR | National Institute for Health Research

Global Health Research (GHR) Groups Programme

Nested Theory of Change

Aim/rationale

To support equitable research partnerships between researchers and institutions in the UK and those in low- and middle-income countries (LMICs) eligible to receive Official Development Assistance (ODA) to generate the scientific evidence that can improve practice and inform policy, leading to better health outcomes for people in LMICs. Community engagement and involvement (CEI), co-production and equitable ways of working are supported and embedded throughout inputs, activities, outputs, outcomes and impacts.

INPUTS

- UK researchers with expertise in applied health research who are interested in addressing global health issues through new equitable global partnerships in ODA-eligible countries
- External global health expertise and time
- Foreground intellectual property, know-how and research data
- Research and support staff, support for training, facilities

ACTIVITIES

- Create **equitable UK-LMIC research partnerships and networks** in new thematic or geographical areas
- Establish and deliver new **programmes of applied global health research**
- Set up a focused **programme of capacity and capability strengthening** at an individual and institutional level

OUTPUTS (<5 years)

- New equitable partnerships and networks are established
- Equitable partnerships secure funding from other sources
- People and communities in LMICs benefit from taking part in research activities
- Increased number of trained research and support staff strengthen local/regional research capacity
- Delivery of policy and practice relevant research outputs to inform future studies in areas of unmet need

CROSS-CUTTING ACTIVITIES

- NIHR provides funds and resources to commission, manage and monitor
- Communication activities, training opportunities (NIHR Academy), networking, monitoring evaluation and learning
- Digital open access platforms and dissemination mechanisms

SHORT TERM OUTCOMES (<5 years)

MEDIUM TERM OUTCOMES (~5-10 years)

- Increased inclusion, engagement and research awareness of LMIC communities supports sustainable co-production of research
- Policy-makers and practitioners are aware of research outputs and are able to access evidence to support decision-making
- LMIC research and research management capacity is strengthened to contribute to and lead high quality research and training
- Increased capacity in UK institutions to work with partners in LMICs to identify and address global health issues
- Sustainable global networks are created in thematic areas and/or across geographies
- Positive health outcomes and reduced inequities for people within LMICs start to be seen

LONG-TERM OUTCOMES/IMPACT (~10-25 years)

- Increased individual and community capacity for health promotion and disease prevention
- Health systems in LMICs are better able to identify and respond to population needs for prevention, treatment and management of disease
- Contribute towards improved access, coverage, quality, efficiency and equity of LMIC health systems
- Sustainable growth of the LMIC research ecosystem

- Contribute towards improved health and wellbeing in LMICs by 2030 (SDG 3) and beyond
- Contribute towards economic development and welfare in LMICs

Global Health Research (GHR) Groups Programme Theory of Change

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Aim

NIHR and DHSC (under the umbrella of NIHR) have developed this Theory of Change to illustrate to potential applicants to the NIHR Global Health Research Groups Call 5 a selection of example activities, outputs, and outcomes reflecting the core aims, objectives, and funding criteria of the Groups. This Theory of Change is intended merely as a visual representation of the programme's core principles and ambitions, drawing on scoping work and discussions that have informed the initial commissioning. NIHR encourages applicants to the Groups programme to further build on this Theory of Change, using it as an underlying methodology for designing, planning, monitoring, and evaluating their proposed research, linking the concepts to their own local contexts.

NIHR intends and expects this Theory of Change to be updated and evolve as part of activities linked to successful Groups' own strategies to deliver wider impacts, and monitoring, learning and evaluation plans - and welcomes prospective applicants' feedback on how the principles and ambitions set out in this guidance relate to their own ambitions, contexts, and experiences. Please email nihrglobalhealth@nihr.ac.uk with any feedback.

Process

The original Units and Groups Theory of Change was developed collaboratively through a series of workshops with key stakeholders including the DHSC's Global Health Research team and independent scientific advisory board, NIHR Coordinating Centres, other strategic delivery partners and award holders. It was updated in summer 2023 to reflect independent plans for the Units and Groups programmes and future calls, resulting in the nested Theory of Change for the Groups programme.

Theory of Change

The Theory of Change diagram for NIHR Global Health Research Groups is a nested theory of change, which should be viewed as a sub-set of the overarching Global Health Research Portfolio Theory of Change.

This Theory of Change demonstrates the inputs, activities, outputs, outcomes and impacts that reflect the core aims, objectives, and funding criteria of the Global Health Research Groups. It is a visual representation of the programme's core principles and ambitions, shown in a series of logical steps.

The Theory of Change shows the inputs that are required for the programme to work effectively and the activities that take place using these inputs. It also shows how these inputs and activities are expected to result in short-term outputs, mid-term outcomes and long-term impacts, which occur at various points in time.

The coloured arrows represent the assumed causal flow starting with how the resources deployed (inputs) to enable activities to take place lead to a set of expected results (outputs) in the short-term, which feed into changes (outcomes) in the medium-term and finally culminate in long-term impacts occurring after around 10-25 years. Inputs, activities, and outputs are stages that are within the direct control of the NIHR Global Health Research Groups, while the outcomes may be directly influenced (rather than controlled) and impacts only indirectly influenced. The impacts relate to the global needs that these programmes were designed to play a role in addressing. Moving from outputs to outcomes and impacts, they become harder to measure, which is represented by fading of the box frames.

Some significant reverse flows are expected as global networks are created, which will likely feed into inputs in future research funding rounds. The role NIHR plays in supporting the Global Health Research Groups is illustrated by the grey boxes below with arrows pointing up, which feed into the inputs, activities, and outputs.

The diagram also shows the sphere of control that the NIHR Global Health Research Groups programme might be expected to have. The programme has direct control over inputs, activities, and short-term outputs, it can directly influence mid-term outcomes and it has an indirect influence on long-term impacts.

The first stage of the diagram focuses on the inputs for the successful working of the programme:

- The specific inputs of UK researchers with expertise in applied health research who are interested in addressing global health issues through new equitable global partnerships in ODA-eligible countries. Equitable research partnerships

are defined in line with SDG 17: 'Enhance North-South, South-South and triangular regional and international cooperation on access to science, technology and innovation, and enhance knowledge sharing on mutually agreed terms'
- the expertise and time of external experts in funding processes
- research staff and research-enabling staff, training, and facilities of Groups
- background intellectual property, know-how and research data that research teams bring to their awards.

As a funder, the NIHR supports these inputs in terms of resources (money, knowledge and experience) to commission, fund, manage and monitor the programme.

These inputs then feed into the second stage consisting of the activities undertaken by Groups using their inputs throughout the award period:

- create equitable UK-LMIC research partnerships and networks in new thematic or geographical areas
- establish and deliver new programmes of applied global health research
- set up a focused programme of capacity and capability strengthening at an individual and institutional level

At the funder level, NIHR supports these activities through its own activities around communication, training (through the NIHR Academy), facilitating networking between teams, monitoring, evaluation, and learning.

The arrow indicating the causal flow links the activities to the third stage – this consists of the intended short-term outputs, which are the tangible, measurable products, goods, and services resulting from the activities. In the short term, the following outputs are expected, in line with activities:

- new equitable partnerships and networks are established and secure funding from other sources
- people and communities in LMICs benefit from taking part in research activities
- an increased number of trained research and support staff strengthen local and/or regional research capacity. Support staff refers to research managers, finance, and administrative staff
- the delivery of policy and practice relevant research outputs informs future studies and/or trials in areas of unmet need

Moreover, even in the short-term, NIHR hopes to see an improved quality of care and experience of care among people and communities that directly take part in the research activities in LMICs.

As a funder, NIHR supports the generation of short-term outputs by providing digital open access platforms and dissemination mechanisms.

Moving onto the fourth stage (mid-term outcomes), after around three to 10 years, NIHR expects to see the following outcomes:

- inclusion, engagement and research awareness of LMIC communities is increased to support the sustainable co-production of research
- policy-makers and practitioners are aware of research outputs and are able to access evidence to support decision-making
- LMIC research and research management capacity is strengthened to contribute to, and lead, high-quality research and training
- Increased capacity in UK institutions to work with partners in LMICs and address global health issues
- sustainable global networks are created or strengthened in thematic areas or across geographies

There are also some mid-term outcomes that NIHR would expect to see at the funder level. These include the positive disruption of the global health research landscape, with the Global Health Research Groups cohort expanding to new research areas, geographies, partnerships and networks. In addition, NIHR would like to see increasing recognition of its role as a global health researcher funder, which addresses locally identified LMIC needs and priorities through research. NIHR sets the expectation that there is evidence of gender equity in leadership models and continuous career development and the evolution of leadership models across all levels within research teams to favour development opportunities within LMICs and HICs which are supported by the effective mentoring to ensure development of new models for research leadership and team development particularly in teams seeking follow-on funding beyond their NIHR funded awards.

The final stage of the diagram shows long-term impacts. In the long term (approximately 10-25 years), the changes in policy, practice and behaviour are expected to contribute towards strengthened health systems, increased individual and community capacity for health promotion and disease prevention, and the sustainable growth of the LMIC research ecosystem. A research ecosystem refers to researchers and their outputs, research institutions, funders, policymakers who use the research to inform policy, communication specialists who share information with the public, and private sector companies who develop products and employ researchers. Somewhat harder to measure, but something NIHR still expects to have an impact upon, is economic development and welfare in LMICs. These impacts tie into Sustainable Development Goals (SDG), notably SDG 3 (“ensure healthy lives and promote wellbeing for all at all ages”), SDG 8 (“promote sustained, inclusive and sustainable

economic growth, full and productive employment and decent work for all") and SDG 17 ("strengthen the means of implementation and revitalizing the global partnership for sustainable development").

The diagram also anticipates reverse flows. So, for instance, the global health research networks which are created or strengthened as a mid-term outcome will feed back into inputs and activities in future funding programmes.

Finally, community engagement and involvement, co-production and equitable ways of working as well as networking to share learning across the portfolio are supported and embedded in all activities and at all stages of the model.

Assumptions

Increasingly, as the theory moves from top to bottom, the theory of change relies on set assumptions around the causal links. Where assumptions do not hold true, there is a risk that these will cause a break in the causal links, which could undermine the achievement of the intended outcomes and impacts. NIHR will monitor the assumptions and risks to test if any mitigation is required.

These assumptions are likely to play out differently over time and space; LMIC settings are not homogenous:

Inputs:

- UK-LMIC partnerships can successfully and effectively deliver global health research
- Applications, submitted and funded, are based on LMIC-led and needs-driven priorities for sustainable research solutions in support of SDGs
- Applicants have the knowledge and networks for effective CEI during the pre-award stage to co-produce proposals
- Applicants are able to bring the necessary input resources

Activities:

- Research areas continue to reflect LMIC-led and needs-driven priorities
- Activities are efficient and contribute to achieving value for money
- Groups are able to mobilise, expand and strengthen partnerships and networks
- Groups are able to achieve equity and collaboration at all levels of working, including at the pre-award stage, and are South-South as well as North-South
- Groups have the ability to effectively identify and engage policy-makers

- Active CEI is maintained throughout the entire research process, including in the generation of priorities for research
- NIHR funding and monitoring activities support equitable ways of working
- NIHR communication activities are sustained throughout and reach intended audiences

Outputs:

- Research outputs consider access, coverage, quality, efficiency, equity
- NIHR award level dissemination platforms and communication mechanisms including the Global Health Research Journal are recognised and used
- Partnerships and networks established are sustainable and able to attract funding from other sources
- Learning and translation between partners and settings is accepted and acted upon

Outcomes:

- Policymakers/practitioners have the resources and the political will and ability to understand and use research findings
- Institutional capacity for research is supported within the LMIC environment and trainees are retained within the LMIC research ecosystem to support future sustainability
- Locally driven work packages have potential for wider geographic generalisability

Risks:

- Researchers do not have skills, knowledge and networks to disseminate findings effectively to policy-makers and practitioners, hindering implementation and generalisability of findings
- External influences e.g. social, political, economic, environmental, technological, legal, demographic, cultural context hamper the research process or the uptake of research evidence.

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- Francesca Ashworth: Conceptualization, Writing – review and editing, Supervision, Methodology
- Alexandra Griffiths: Project administration, Conceptualization, Writing – review and editing, Visualization
- Alison MacEwen: Conceptualization, Writing – Original draft, Supervision
- Laurence Poos: Conceptualization, Writing – Original draft, Supervision
- Sarah Puddicombe: Conceptualization, Writing – original draft, Writing – review and editing, Supervision
- Stephanie Russell: Conceptualization, Writing – original draft, Writing – review and editing
- Sara White: Conceptualization, Writing – review and editing

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Competing interests

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No competing interests were disclosed.