Department of Health & Social Care

Global Health Research Groups Annual Review - 2022

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NIHR Global Health Research Portfolio

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Annual reporting and review process

This activity has been supported by the UK aid budget (Official Development Assistance, ODA) as part of the Department of Health and Social Care (DHSC) Global Health Research (GHR) portfolio.

The Annual Reporting and Annual Review templates are part of a continuous process of monitoring, review and improvement within NIHR's Global Health Research portfolio. These are an opportunity for DHSC and partners responsible for delivering a funding scheme to reflect critically on the performance and ongoing relevance of awards.

The main sections of the template have been developed in accordance with cross-funder common reporting practice and will be used to provide accountability for the use of public money, meet Official Development Assistance transparency and compliance requirements. The template has three main components:

- Section 1 captures DHSC's and the Delivery Partner's overall assessment of funding scheme performance over the last 12 months.

- Sections 2-3 focus on monitoring progress of awards against planned activities, outputs and outcomes (in accordance with the portfolio Theory of Change and results framework).

- Sections 4-7 focus on the delivery partner's management of value for money, risk, financial reporting, monitoring, evaluation and learning updates.

The process for completing this template involves the following steps:

1. Delivery partners ensure that the relevant monitoring information is collected at the award level (as set out in the NIHR Global Health Research results framework). This information will be collected using existing reporting mechanisms wherever possible, before bespoke reporting is considered.

2. Delivery partners collate a synthesis of the award level monitoring information and present aggregated funding scheme level findings (and award level wherever specified) within this template.

3. This report is then shared with DHSC for comment and feedback.
4. DHSC will then use the annual report and additional information gathered through meetings, field visits and any other documentation to complete the annual review template - relevant sections are highlighted with green boxes. This will include an assessment of overall funding scheme performance over the last 12 months, identify lessons learnt, time-bound recommendations for action consistent with key findings and will be used as an evidence base for future funding decisions. Please write this summary with a public audience in mind, assuming no prior knowledge of the funding scheme.
5. Annual review signed off and published.

1. Programme Summary and overview

1.1 Description of the funding schemes aims and activities

The NIHR Global Health Research Groups programme awards funding to specialist departments within UK universities or research institutions not currently active in global health that want to use their existing skills to build capacity to extend into this field.

The Global Health Research Groups programme funds research to address locally-identified challenges in LMICs, by supporting 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).

The Global Health Research Groups programme aims to generate the scientific evidence that can improve health outcomes for people in low resource settings through improving practice and informing policy. The programme also strengthens research and research management capacity and capability to support future sustainability of research in partner countries.

Each Group receives funding of up to £3 million over a period of 3-4 years.

1.2 This report specifically focuses on a total of 48 awards funded through Call 1 (20 awards), Call 2 (20 awards) and Call 3 Phase 1 (8 awards) from June 2021 to October 2022. Summary of funding scheme performance over the last 12 months (general progress on activities, early outputs, outcomes, impacts across all awards)

The groups programme is on track to deliver its intended outputs and outcomes. 38 (80%) of the research projects are rated green, 8 amber, 2 red. The main reasons for projects being amber and/or red were financial issues and/or delays due to the Covid-19 pandemic.

All 48 funded Groups identified and engaged with community groups particularly those who are vulnerable, marginalised or at risk. For example, in Nepal, the GHR Group on health system responses to violence against women carried out stakeholder mapping exercises, which allowed them to reach women and children living in remote, rural areas where pilot out-reach centres were situated.

Groups engaged communities in a variety of innovative ways, for example through radio broadcasts, theatre performances, photo diaries, social media and community advisory boards, and adapted their research to meet local needs and context.

The number of high quality research outputs significantly increased through the reporting period, with the largest rise in dissemination related activities such as conference abstracts, events and workshops, journal articles and presentations. This reflects that 40 of the 48 Groups during this reporting period were in their final stages, with research findings emerging. These outputs and dissemination activities are an important step in the pathway to evidence uptake.

Additionally, this report includes strong evidence of Groups engaging with evidence users such as policy makers and practitioners to help influence care at local, regional and national levels. There are also examples of research influencing policy and clinical practice. For example, findings from the GHR Group on Stillbirth Prevention and Management in Sub-Saharan Africa have been incorporated into national guidelines on maternal health in Kenya and Tanzania. The GHR Group on Improving Stroke Care trained and co-designed interventions with clinical staff at their sites in India which has reduced complications and improved patient outcomes.

DHSC is pleased to see that GHR Groups are deploying approaches to strengthening research capacity across individuals and institutions that will ensure sustainable capacity is built. Examples of these approaches include 'train the trainer' and training support networks, which feature in several awards. All of the Groups showed evidence of equitable research partnerships, demonstrated through equitable leadership of work programmes, joint delivery and ownership of outputs and sharing expertise between teams.

1.3 Delivery Partner and DHSC to summarise action taken against key recommendations from previous annual reviews over the last 12 months.

Recommendation	Owner	Timeline	Action taken
Continue to monitor the impact of COVID-19 on this cohort and the subsequent underspend through quarterly QSTOX and regular monitoring and quarterly reporting of findings to DHSC, plus ad hoc as need arises. Reflect	NETSCC	Ongoing and next report	Complete: NETSCC used Covid Update Notes to regularly report delays and other impacts of COVID-19 to DHSC. Reflections on value for money have been captured in this annual review under section 4.

Recommendation	Owner	Timeline	Action taken
on developments since this reporting period in the next Annual Review/Programme Completion Review including how value for money has still been achieved.			
Reflect the results of the assurance investigations in the next reporting period.	NETSCC	Next report	Complete: Findings from assurance visits have been reflected in this annual review. No major investigations were conducted.
Continue to keep updated workplan Gantt chart and share with DHSC on a quarterly basis via PMM meetings, providing interim updates where pressures unexpectedly arise within these periods	NETSCC	Ongoing, monthly/quarterly basis	Complete: This is now BAU. Regular updates are provided to DHSC at PMM meetings and on as needed basis.
Develop the NIHR GHR programme contract close down process and review learning to inform NIHR policy for GHR awards and LMIC institution staff to continue to improve existing processes for monitoring, evaluation and learning across the GHR programme the cohort in close collaboration with DHSC	NETSCC	By Sept 2022	Complete: This is now BAU. End of award reporting processes have been established and learnings are captured in annual reviews as standard.
Develop and implement the NIHR Global Health Journal model working with teams, in line with agreed plan.	NETSCC led by Portfolio Insight and Publications team	As awards complete in 2022	Ongoing: Journal is likely to launch in early 2024 and publications are in the pipeline.
Develop a suite of examples of emerging impact to share learning across the portfolio working closely with NIHR GHR Communications	NETSCC	Ongoing	Ongoing: The process of identifying and communicating impact stories is still being developed. The ongoing activities of Groups

Recommendation	Owner	Timeline	Action taken
			continue to captured as features in the NIHR GHR communications pipeline.

1.4 Performance of delivery partners.

During the pandemic, NETSCC were quick to adapt and flex their approach with award-holders in order to ensure the viability of the research. This included a move to remote monitoring and the development of a bespoke form for award-holders who wished to request rapid changes to carry out COVID-19 related work such as genomic sequencing or evidence reviews. NETSCC have been responsive in providing additional information and analysis to DHSC where needed, and flexible in accommodating changes to make the process smoother.

NETSCC have been helpful in connecting DHSC colleagues with Groups for in-country visits and keeping DHSC up to date on any relevant virtual meetings.

NETSCC continue to monitor projects closely and remain in regular communication with Groups, providing timely updates to DHSC on any issues as they arise, and logging these diligently on Programme Management Meeting trackers ahead of quarterly catch ups with DHSC. NETSCC have been accommodating of the governance changes in the Global Health Research Portfolio towards the end of this reporting period, with the arrival of the GHR Programme Director, and have been working closely with DHSC colleagues to establish new ways of working.

1.5 What are the key lessons identified over the past year for wider DHSC/NIHR global health research?

1. Improved procedures for quarterly financial reporting are working well: Since 2022, NIHR has revised its procedures for financial reporting, requesting transaction lines and invoices quarterly rather than at the point of reconciliation at the end of the award. This reduces administrative burden by spreading the effort across the lifetime of the award, allows for full interrogation of budget and spend data to support assessment of value for money, and helps simplify final reconciliations at the end of the contract.

2. Delays with contracts and collaboration agreements continue to be a challenge: Some award-holders have stressed the negative impact of contracting and collaboration agreement delays on individuals at LMIC institutions that are unable to absorb upfront spending. NIHR regularly reviews its processes for contracting, reviewing collaboration agreements, and issuing variations. There have been significant improvements and efficiency gains since Call 1 and Call 2 were contracted, notably electronic contracting. The processes and guidance for no-cost extensions are also better established. NIHR and DHSC are also discussing opportunities to allow for more flexibility around contract start dates, which would prevent some of the knock-on effects from early delays.

3. Cross-award networking, training and development opportunities could be strengthened: Groups would welcome more information on the NIHR Academy offer and other capacity strengthening activities delivered through the NIHR. There is also a desire for more support for non-Academy members, such as project management staff, and wider networking and cross-award learning with plans for a series of cross NIHR shared learning and networking events. Opportunities to further improve networking, training, and sharing of available resources, for example through the NIHR Learn platform, are currently being explored.

1.6 Key recommendations/actions for the year ahead, with ownership and timelines for action.

Recommendation	Owner	Timeline
NIHR will continue to monitor the distribution of peer-reviewed publications and ensure Call 3 GHR Groups have processes in place to ensure equity in authorship and leadership of scientific outputs and open access.	NETSCC	From January 2024
Monitor adherence of NIHR Open Access policy, to assess whether guidance or feedback to award-holders need to be strengthened.	NETSCC	From January 2024
Work with project teams to support institutional adoption of transparency reporting requirements and develop monitoring of transparency data	NETSCC with support from DHSC on transparency guidance	Ongoing

Recommendation	Owner	Timeline
Improve communication on NIHR Academy offer and increase number of cross-award networking, training, and collaboration opportunities for award holders, for example through events, webinars, virtual platforms such as NIHR Learn, and through presentations from the GHR Programme Director.	NETSCC and NIHR Academy	From January 2024
Work with other global funders to better share information regarding due diligence and ensure due diligence processes are both robust and proportionate. Improve coordination of assurance and due diligence across all the GHR programmes within NIHR.	NETSCC and Assurance Lead	From January 2024

Acronyms and Abbreviation Definitions

AF	Atrial Fibrillation
AHPSR	Alliance for Health Policy and Systems Research
COVID-19	Coronavirus disease
DHSC	Department of Health and Social Care, UK
FCDO	Foreign, Commonwealth and Development Office
FTE	Full time equivalent
GBP	Great British Pounds
GFGP	Good Financial Grant Practice
GHR	Global Health Research
HIC	High income country
HIV	Human immunodeficiency virus
HPSR	Health Policy and Systems Research
HSG	Health Systems Global
HSRUK	Health Services Research UK
IATI	International Aid Transparency Initiative
INR	International Normalized Ratio
IT	Information technology
LMIC	Low- and middle-income country
MIS	Management information system
NCD	Non-communicable disease
NEST360	New-born Essential Solutions and Technologies alliance
NGO	Non-governmental organisation
NIHR	National Institute for Health Research
ODA	Official Development Assistance
RAG	Red/amber/green rating
ToC	Theory of Change
UHC	Universal health coverage
UK	United Kingdom

2. Summary of aims and activities

The Global Health Research (GHR) Groups programme awards funding to specialist departments within UK universities or research institutions not currently active in global health that want to use their existing skills to build capacity to extend into this field.

The GHR Groups programme funds research to address locally-identified challenges in low- and middle- income countries (LMICs), by supporting equitable research partnerships between researchers and institutions in the UK and those in LMICs eligible to receive Official Development Assistance (ODA).

The GHR Groups programme aims to generate the scientific evidence that can improve health outcomes for people in low resource settings through improving practice and informing policy. The programme also strengthens research and research management capacity and capability to support future sustainability of research in partner countries. GHR Groups are defined as a partnership of specialist researchers within universities and research institutes in LMICs and the UK, who:

- are either new to delivering applied health research globally, or expanding to new global partnerships to deliver applied global health research addressing unmet needs in new health areas or geographies in ODA-eligible countries

- through a planned start-up phase, will develop or expand equitable research partnerships and networks, to undertake LMIC-led needs analysis designed to refine relevant research questions and priorities through engagement with policy makers, evidence users and local communities, as appropriate

- will establish a new programme of applied health research delivered through ambitious, structured plans for e.g. scoping studies, needs analysis, economic analysis, pilot studies and potentially trials

- are able to develop the strength of the partnership to improve practice and inform policy based on scientific evidence

- will set up and deliver a focused programme of capacity and capability strengthening at individual and institutional level appropriate to the respective goals.

GHR Groups receive funding of up to £3M over a period of three to four years.

NIHR funded a first cohort of 20 GHR Groups (Call 1) in 2016, followed by 20 Call 2 GHR Groups in 2017. NIHR invited Call 1 and Call 2 GHR Groups to apply for costed extensions for new work. Successful applications approved in 2020 included extensions for up to another year. NIHR also granted additional no-cost extensions as requested between 2021-2022 to mitigate delays caused by the COVID-19 pandemic. NIHR awarded no-cost extensions of up to 12 months. Both Call 1 and Call 2 GHR Groups have now completed their activities and submitted End of Award reports. Call 1 and Call 2 Groups contracts ended between June 2021 and December 2022.

NIHR then funded Call 3 GHR Groups in two phases with two call closing dates in Autumn 2020 and Summer 2021 to help teams to mitigate the impact of COVID-19 when applying for new awards. This report focusses on the eight Call 3 Groups funded in Phase 1, which have now completed their first year of activity between June 2021 and October 2022 (depending on their contract start date). As a result, this report covers the progress of the 48 active awards from GHR Groups programme Calls 1, 2 and 3 in the period covering June 2021 to October 2022. Data on Call 3 Phase 2 awards funded in 2022 will be included in the next report.

More information about the GHR Groups programme and each call can be found on the NIHR website and information about individual awards can be found on NIHR Funding and Awards. The content of this report is based on the analysis of evidence from annual reports and end of award reports, as well as supporting information provided by award holders. For the full list of contracted GHR Groups, please refer to Annex A.

2.1 Delivery partner's assessment of progress against milestones/deliverables

In the reporting period June 2021 to October 2022, Call 1 and Call 2 GHR Groups finalised research activities, analysis, and in-award dissemination. Call 3 GHR Groups funded in Phase 1 have completed the first year of their activities. Year 1 activities included setting up collaboration agreements, recruiting research and support staff, onboarding trainees, and preparing for fieldwork and/or clinical research. Section three of this report summarises the

outcomes from all GHR Groups' activities with regard to research outputs, research capacity-strengthening, and equitable research partnerships. More information about award activities can be found on individual Groups' websites and the NIHR website, as referenced throughout this report.

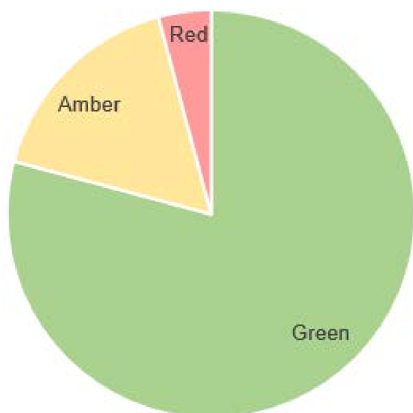
NIHR use a Red-Amber-Green traffic light system to assess whether the awards are delivering on time and target. The delivery risk categories are defined as follows:

RAG	Delivery
RED	Significant risks to progress/funded outcomes, urgent mitigation required
AMBER	Some risks to progress/funded outcomes, mitigation required
GREEN	No unmitigated risks to progress/funded outcomes

Risk to progress/funded outcomes is defined as any combination of factors that is likely to affect the programme of work, i.e., the research is likely not to be delivered or not as agreed at point of funding. This could have implications for the duration of the contract, the funding amount, or both.

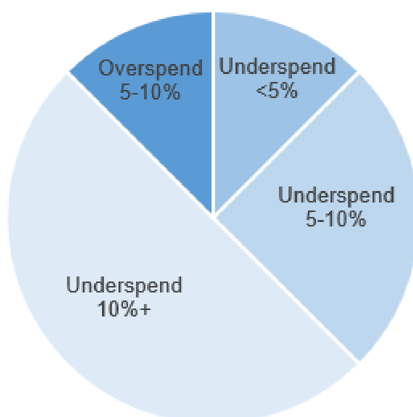
At the end of the reporting period, 38 GHR Groups were rated as green, while eight were rated as amber and two as red. The main reasons for projects being amber and/or red were financial issues (see Section 6 – Delivery, commercial and financial performance) and/or delays due to the pandemic. The underspend chart below shows the underspend values in the last quarter of the reporting period. Section 5 describes the top five portfolio risks in more detail. Section 6 contains more detail on financial performance and includes total under/overspend across Call 1 and Call 2 GHR Groups at the end of the awards.

Figure 1: Global Health Research Groups dashboard



RAG Distribution	*No. Projects:*	*48*
Green	38	79%
Amber	8	17%
Red	2	4%

Based on the RAG rating at the end of contracts for Call 1 GHR Groups, Call 2 GHR Groups, and as of 18 June 2023 for Call 3 Phase 1 GHR Groups



Over/Underspend	*No. Projects:*	*8*
Underspend <5%	1	12.5%
Underspend 5-10%	2	25%
Underspend 10%+	4	50%
Overspend 5-10%	1	12.5%

Call 3 Phase 1 GHR Groups only, as of 15 February 2023

2.2 Delivery partner's assessment of how individuals/communities (including any relevant sub-groups) have been engaged and of the extent to which award holders have changed their plans to reflect individuals/communities needs when identifying research priorities, design/planning, implementation, analysis, and reporting and dissemination

Community engagement and involvement (CEI) is an essential and embedded component of NIHR's GHR funding. NIHR has developed, which sets expectations for award-holders when designing their application and conducting their research over its entire lifecycle. This includes advice on having dedicated CEI leads. In addition, NIHR is supporting the development of a community of practice and networking between CEI leads within the GHR programme portfolio to share learning. Furthermore, NIHR is scoping the available CEI literature and creating a dialogue with CEI leads and the research community. In doing so, NIHR aims to refine CEI principles and guidance for researchers, and to develop examples and case studies of good practice in CEI. The following section describes the achievements of Call 1 and Call 2, as well as the progress of Phase 1 Call 3 GHR Groups with the following aspects of CEI: inclusion; participation and two-way communication; and empowerment, ownership, adaptability, and localization.

Inclusion

All GHR Groups have made progress in identifying and engaging with community groups particularly those who are vulnerable, marginalised or at risk through different means. Despite being disrupted by the COVID-19 pandemic, CEI activities were able to continue by moving to virtual platforms and contacting participants via telephone, video call and/or email.

The GHR Group on Diet and Activity (GDAR) working on the prevention of diet- and physical activity-related non-communicable diseases (NCDs), through stakeholder mapping across all the GDAR Spaces, identified 167 community members and representatives, and people working for community-based NGOs and community-driven initiatives. These included youths, women, informal vendors, people living in informal settlements, people with disabilities, people living with NCDs and /or comorbidities and other vulnerable groupings.

The GHR Group on Social Policy and Health Inequalities identified community groups based on previous studies conducted by the Brazilian Centre for Data and Knowledge Integration for Health (CIDACS), especially using the 100 million Brazilians Cohort. These included activists and researchers from the Black Movement, as well as individuals from favelas, indigenous and 'Quilombola' communities.

In Nepal, the GHR Group on health system responses to violence against women carried out stakeholder mapping exercises, which allowed them to reach women and children living in remote, rural areas where pilot out-reach centres were situated.

Through engagement with patient representatives as part of stakeholder analysis, the GHR Group on preterm birth and stillbirth at the University of Liverpool (the DIPLOMATIC collaboration), who were working with pregnant women in Malawi and Zambia, identified adolescent mothers as a particularly vulnerable subset of this population. This informed the development of one of the work packages which explored the experience of antenatal care for adolescent pregnant women and their partners.

Other examples of vulnerable or at-risk groups identified have included:

- The people with conflict-related injuries in Lebanon, the Occupied Palestinian Territories and Sri Lanka. Working with surgeons and the Ministry of Health and Ministry of Interior, the GHR Group on POsT Conflict Trauma (PrOTeCT) reached 244 people with conflict-

related injuries patients in the Occupied Palestinian Territories and 250 in Lebanon. Community engagement numbers were not given for Sri Lanka but 17 people with conflict-related injuries were involved in the first human clinical study of the External Fixator intervention.

- Family health teams including community health workers living in underprivileged urban communities in Brazil and Ecuador where drug-related and petty violence is widespread. (GHR Group n Asthma Attacks Causes and Prevention Study in Urban Latin America)
- Elderly people with comorbidities, such as a history of substance dependence and abuse (GHR Group on warfarin anticoagulation in patients with cardiovascular disease in Sub-Saharan Africa (War-PATH)
- Children, people with disabilities, those living in geographically isolated communities and marginalised groups such as adolescents, mothers, and truck drivers. (GHR Group on Nepal Injury Research)

Participation and two-way Communication

Types of engagement included media interviews, radio and TV broadcasts, theatre performances, the production of boardgames, school-based outreach events, community sensitization meetings, focus groups, in-depth interviews, and questionnaires.

- The GHR Group on Dementia Prevention and Enhanced Care (DePEC) produced a one-hour radio broadcast and held a 6-day public information event at Mount Meru Regional Hospital in Tanzania about dementia. As a result of the campaign, Mount Meru Regional Hospital saw an increase in the number of public and patient referrals to their memory clinic.
- Over 4000 adolescents engaged across five countries in theatre performances and workshops (GHR Group on improving asthma outcomes in African children).
- The GHR Group on Road Safety reported team members had a meeting with the Prime Minister of Bangladesh.
- GHR Groups also used Twitter, Facebook and We Chat to engage with their communities.
- In Ecuador, the GHR Group on Asthma Attacks Causes and Prevention Study in Urban Latin America used a Facebook Live session to answer questions from the public on asthma and COVID-19, achieving a peak audience of 2194 people.

Some GHR Groups successfully engaged with communities through providing training. For example, the GHR Group on African Snakebite Research (ASRG) trained 275 ward heads and town announcers to increase the awareness of snake envenoming (poisoning from snakebites).

The GHR Group on Nepal Injury Research ran training workshops with journalists in Nepal on how to improve the reporting of road traffic accidents to avoid sensational reporting of numbers of deaths and include road safety advice.

CLEAN-AIR(Africa) successfully implemented a national program of training in Health and Prevention for community health workers in Kenya across all 47 counties.

Most GHR Groups implemented Community Advisory Boards or Panels as part of their CEI strategy. For example, the GHR Group on Stillbirth Prevention and Management in Sub-Saharan Africa reported that the development of CEI advisory groups has enabled women's voices to be heard and acted upon within both the research programme and their own communities. The CEI Lead in Zimbabwe said *"The CEI group and us as individuals have benefitted from being part of something bigger than ourselves and we have been able to use our own personal experiences to impact the lives of other people"*.

More unusual advisory groups included:

- National Policy Forums (NFPs). These consisted of individuals representing the implementers of the interventions under investigation, policymakers, patient representative groups, clinical teams/ groups, and health administrators. The NPFs assisted teams in critiquing their research plans, providing additional information about the intervention, supporting access to important data, and discussing the practical research implications (GHE2)
- A Theatre and Art Advisory Panel to provide capacity building and the creation of a theatre group whose performances are led by people with psychosis (GHR Group on developing psycho-social interventions for mental health care)

Many GHR Groups highlighted co-production and collaboration with communities and existing networks or organisations as a key theme. For example:

- The GHR Group on Psychosis Outcomes: the Warwick--India-Canada {WIC} Network, The University of Warwick (WIC) co-designed a mobile App, 'Saksham', with patients, caregivers, and mental health providers to support home-based psychosocial care for patients with schizophrenia.
- In collaboration with Women's Rehabilitation Centre (WOREC) Nepal & The Story Kitchen, the GHR Group on health system responses to violence against women produced an exhibition of actor-narrated stories from Healthcare Responding to Violence and Abuse (HERA), advocacy videos from WOREC Nepal and interviews from different stakeholders for example, National Women Commission. The exhibition was attended by over 100 members of the public.
- In Timor-Leste, communities came together to inform and lead the establishment of community-based pre-schools, where no provision previously existed (GHR Group on Early Childhood Development for Peacebuilding (LINKS))
- In Nepal, the GHR Group on Nepal Injury Research worked with existing community organisations to explore residents' experience of living next to a busy highway (see highlight box at end of Section 2.2).

Empowerment, Ownership, Adaptability and Localization

GHR Groups have adapted research to support the inclusion of participants with low levels of literacy and mobility issues. For example:

- Altering the protocol for process evaluation interviews targeting clinical and research staff to be able to offer the interviews in local languages instead of English, where preferred (GHR Group on Improving Stroke Care, India)
- Modifying training videos for doctors' and nurses' in how to diagnose musculoskeletal problems to include examination techniques that fitted the local context alongside appropriate Swahili language (GHR Group on estimating the prevalence, quality of life, economic and societal impact of arthritis in Tanzania)
- The GHR Group on leveraging improved nutrition preconception, during pregnancy and postpartum in sub-Saharan Africa implemented novel intervention models (INPreP) to ensure participants with no or low literacy levels were included in the development and evaluation of the Choosing All Together (CHAT) board game. This was achieved by

designing materials, supported by illustrations and by having extra researchers and field workers to support facilitation during meetings.

- Following community workshops, the GHR Group on collaborative care for cardiometabolic disease in Africa (CREATE) adapted the mode of delivery of self-management education to ensure delivery in a local community setting, as well as health clinics. The inclusion of community settings maximised reach and reduced the need for travel for patients. This has allowed women, particularly elderly women, to be involved in the research.

Another example of how a project has adapted to the local context and needs of vulnerable groups includes the WIC GHR Group incorporating the preferences of people living with Chronic Obstructive Pulmonary Disorder (COPD) into the cultural adaptation of a pulmonary rehabilitation programme being developed in Sri Lanka. This included music, instruments and singing. In Delhi, India, the team adapted a home-based pulmonary rehabilitation paper manual to include case studies, photos and examples provided by patients and their family members. The power of patients (anonymised) sharing their experiences, strategies for managing their symptoms and their success stories was deemed a motivational and important aspect to include in the manual.

For the GHR Group on Stillbirth Prevention and Management in Sub-Saharan Africa, CEI groups contributed to the development of their successful NIHR Unit application. Suggestions incorporated included an exploration of the experiences of adolescents to identify adaptions to individual projects to ensure their inclusion, as well as the development of a bereavement care package. CEI leads have also been involved in developing and reviewing drafts of papers for publication and are co-authors on publications.

Involving communities in research: an example from the GHR Group on Nepal Injury Research

Through CEI activities, the GHR Group on Nepal Injury Research were able to identify children, young people, novice drivers, cyclists/ motorcyclists, people with disabilities, and passengers as the most likely at risk of injury in a road environment.

By adapting their methodologies to use PhotoVoice methods the GHR Group was able to explore how two of the seldom heard groups – adolescents and people with disabilities - are vulnerable to road injuries. Adolescents were provided with digital cameras and supported to record features of

their journeys to school that increased or decreased their safety. The photographs then facilitated an interview at school. Participants with disabilities (blind people and wheelchair users) were fitted with body worn GoPro cameras to record a journey through the streets of Kathmandu, providing researchers with a new perspective of the issues faced and facilitating an interview to capture their perceptions of risk.

Working with Mothers Groups and Neighbourhood Development Committees, the GHR Group was able to explore resident's experiences of living next to a busy highway. This involved recruiting shopkeepers, with premises overlooking the highway, as data collectors for a study of crash reporting. Shopkeepers said the experience had changed their views of road safety, with some motivated to begin advocacy for safety improvements.

3. Outputs and outcomes

High quality policy/practice relevant research and innovation outputs

The NIHR Global Health Research portfolio Theory of Change includes the following primary research related outputs:

- High quality policy/practice relevant research and innovation outputs that respond to global health research priorities
- Dissemination and knowledge exchange
- LMIC and UK researchers trained and increased research-enabling staff capacity
- Equitable research partnerships and thematic networks established/strengthened drawing on LMIC and UK expertise (SDG 17)

Research and innovation outputs include any item arising from NIHR-funded research that enters the public domain. Research outputs can be written, verbally presented, audio/visual or electronic, as per the definitions available on the NIHR website. NIHR guidance requires award-holders to report on a broad range of research outputs and to give notification of any particularly impactful or newsworthy outputs. NIHR also collects a cumulative count of all award-related outputs with the annual report.

NIHR further identifies important outputs that can be developed into timely NIHR Evidence alerts. During the reporting period, NIHR also published features on preventing injury and improving trauma care in Nepal and worldwide (GHR Group on Nepal Injury Research), reducing harm from smokeless tobacco use in South Asia (ASTRA), and preventing chronic disease through diet and physical activity (GDAR). Call 1 and Call 2 GHR Groups were all offered the ability to publish research findings in the open access NIHR Global Health Journals library. Seven GHR Groups (three Call 1 and four Call 2) are working on publications and/or synopses currently in production. Award holders are also able to publish study protocols and supporting documents on NIHR Open Research. For example, the GHR

Group on Vaccines for vulnerable people in Africa (Vanguard) published a report on their concept and Launch event in June. The GHR Group on traumatic brain injury published an epidemiology study protocol.

For clarity, the outputs referred to in sections 3.1-3.2 follow the NIHR definition of research output. Other Theory of Change outputs are covered in the rest of Section 3.

3.1 Aggregated number of outputs by output type.

Figure 2: Aggregated number of outputs across Call 1 and Call 2 GHR Groups (upon completion) and Call 3 GHR Groups

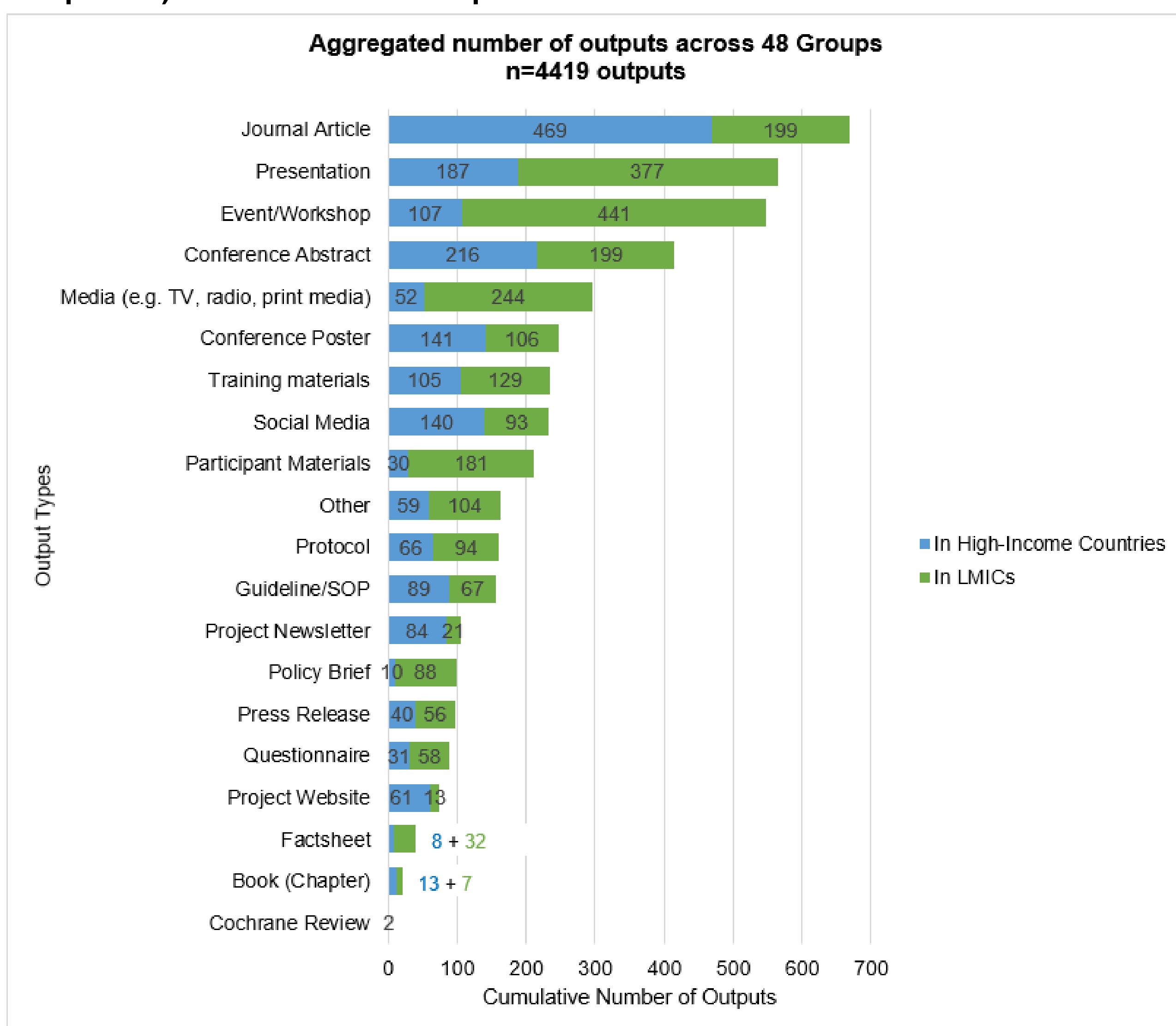


Figure 2 displays the cumulative number of output types from 48 GHR Groups which had been accepted for publication, in pre-publication, or published by 31 January 2023 (date of the last End of Award report submission). The cumulative number of outputs reported has

more than doubled since January 2021 (an increase from 1755 to 4419). Some of the largest increases are in dissemination related activities, which is to be expected as 40 of those 48 GHR Groups were in the final stages, with research findings emerging. These increases include conference abstracts (114 to 415), events and workshops (150 to 548), journal articles (298 to 668), and presentations (366 to 564). Social media outputs (52 to 233), media such as TV, radio, and print media (130 to 296), and conference posters (75 to 247) have also increased significantly. Engagement with LMIC stakeholders is evidenced by 57% of the total number of outputs being based in LMICs, including 90% of policy briefs, 82% of media (TV, radio, print, etc), and 80% of events/workshops and factsheets. Outputs reported under the 'Other' category include talking heads with NIHR GHR Group Director and staff, webinars, screening websites, case studies, and reports detailing a policy forum and describing lessons learned throughout the project.

Responding to the COVID-19 pandemic: examples of outputs from Call 1 and 2 GHR Groups

- The GeMVi team at Kenya Medical Research Institute Wellcome Trust published more than 20 policy briefs covering the detection, spread projections, and genomic surveillance of the SARS-CoV-2 virus.

- ASTRA published several papers on COVID-19 and tobacco use, including on how tobacco use is a cause of severe COVID-19 manifestations (Respiratory Medicine), on a pilot study in India looking at quitting smokeless tobacco during the pandemic (Clinical Epidemiology and Global Health), and on COVID-19, community trials, and inclusion (The Lancet).

- The Neurotrauma GHR Group conducted an evidence synthesis, published in BMJ Open, to identify and summarise the available literature regarding the efficacy of different personal protective equipment in reducing the risk of COVID-19 infection in health personnel caring for patients undergoing trauma surgery in low-resource environments.

- The WIC team established Sumnum Connect, a support line to help manage uncertainty and distress and promote wellbeing during the COVID-19 crisis.

- The GHR Group on Asthma Attacks Causes and Prevention Study in Urban Latin America created an educational webinar for asthma patients and families on how to manage asthma during the COVID-19 pandemic, and a paper on the impact of COVID-19 on asthma symptoms and management in Ecuadorian children (World Allergy Organization Journal).

- CLEAN-AIR(Africa)'s Applied Energy paper describes their efforts to understand the impacts of COVID-19 on food and energy security, and details how a new smart meter technology for clean

liquefied petroleum gas has the potential to reduce the impact of economic instability on use of clean household energy.

- The GHR Group on health system responses to violence against women reflect on their use of remote data collection methods during the pandemic (BMJ Global Health).
- The successful capacity strengthening of the laboratories involved in the GHR Group on genomic surveillance of malaria in West Africa was evidenced by their identification - using whole genome sequencing - of the sources of the SARS-CoV-2 strains imported to The Gambia (PLoS One).
- DePEC's paper on Dementia wellbeing and COVID-19 in the International Journal of Geriatric Psychiatry highlights the disproportionately negative impact of the pandemic on people affected by dementia and makes recommendations for future research.

3.2 Externally peer-reviewed research publications.

In their End of Award reports, Call 1 and Call 2 GHR Groups have reported a total of 564 peer-reviewed publications across the lifetime of the 40 awards. This is almost a doubling compared to Year 3 (327 peer-reviewed publications reported in Year 3), showing the significant acceleration of outputs and publications in the latter half of the GHR Groups' activities. Table 1 below shows the distribution of open access peer-reviewed publications, LMIC, and female lead-authors as reported by the Groups. Partners from UK or other High-Income Country (HIC) home institutions led on a majority (56%) of the publications.

Only 43% of all lead authors are female and, of these female lead authors, the majority (55%) are from UK or other high-income country institutions. Overall, female authors from LMIC institutions represent just 19% of all lead authors. While this shows there are still barriers and challenges facing women from LMICs in research, a total of 109 LMIC-based women have had the opportunity to be a lead or senior author on major peer-reviewed publications as part of GHR Groups funding. As per the recommendations for this report, NIHR plans to continue promoting equity and fairness in authorship and expects future awards to continue to make a difference in achieving an equitable LMIC-HIC team and gender balance.

Table 1: Total number of externally peer-reviewed publications across Call 1 and Call 2 GHR Groups (reported at end of award)

	Total number across all NIHR funded awards (cumulative number since funding began)	% of total number of externally peer-reviewed research publications
Number of externally peer-reviewed research publications that are open access	445	79% (of 564 peer-reviewed publications)
Number of externally peer-reviewed research publications with a lead or senior author whose home institution is in an LMIC	248	44% (of which 44% are female)
Number of externally peer-reviewed research publications with a female lead or senior author	241	43% (of which 45% are from LMICs)

The 8 Call 3 GHR Groups included in this report have also reported peer-reviewed publications at the end of Year 1 – as shown in Table 2 below. Although there are only 17 peer-reviewed publications at this time (which is expected given the stage of the awards), the proportion of LMIC-based and female authors is high. This is an encouraging sign that LMIC partners are leading on research activities and outputs. NIHR will continue to monitor the distribution of peer-reviewed publications and ensure Call 3 GHR Groups have processes in place to ensure equity in authorship and leadership of scientific outputs.

Table 2: Total number of externally peer-reviewed publications across Call 3 GHR Groups – Phase 1

	Total number across all NIHR funded awards (cumulative number since funding began)	% of total number of externally peer-reviewed research publications
Number of externally peer-reviewed research publications that are open access	2	11% (of 17 peer-reviewed publications)
Number of externally peer-reviewed research publications with a lead or senior author whose home institution is in an LMIC	8	72% (of which 75% are female)
Number of externally peer-reviewed research publications with a female lead or senior author	12	71% (of which 50% are from LMICs)

Informing policy, practice and individual/community behaviour in LMICs

3.3 Delivery partner's summary of the most significant outcomes of any award level engagement and/or influence on policy makers, practitioners and individual/community behaviour

NIHR funding committees assess all GHR Groups applications based on the strength of plans for involving users of the research and other relevant stakeholders. Applicants must demonstrate potential for impact and describe identified pathways to translating research evidence into policy and practice. After the awards start, NIHR uses routine monitoring and annual progress reports to ensure GHR Groups deliver on those plans and continue to seek input from evidence-users as research progresses. While the COVID-19 pandemic reduced opportunities for in-person engagement in the last 2 years of Call 1 and Call 2 GHR Groups, most award-holders reported evidence of valuable interactions with individuals, patient groups, practitioners, decision- and policymakers. In many cases, this translates in to local, regional, and even national influence (e.g., changes to policy) as illustrated in the sub-sections below.

Influence on policymakers

At the end of Year 1, Call 3 GHR Groups have reported valuable engagement with key stakeholders. For example, the GHR Group on developing strategies for hepatitis C in Ethiopia (DESTINE) reported valuable networks with Ethiopian government institutions: *“One of the partners engaged in the DESTINE project is the Ethiopian Public Health Institute [EPHI], an Ethiopian government institution. Furthermore, both EPHI and AHRI [Armauer Hansen Research Institute] are a member of the Ministry of Health (MoH) Executive Committee […] through these strong relationships with the MoH, AHRI and EPHI are ideally positioned to translate research findings into public health policy.”*

Other activities from Call 3 GHR Groups included presenting the programme of work at key stakeholder events, including Ministry of Health officials and city-level representatives (GHR Group on Implementation of simple solutions to reduce maternal and neonatal mortality and build research capacity in Sierra Leone). Further engagement with stakeholders and evidence of influence on policy is expected in Years 2 and 3 of the awards.

Call 1 and Call 2 GHR Groups reported many examples of successful engagement with and influence on policymakers. For example, the GHR Group on Global Surgical Technologies engaged with Health Ministers in various states of North-East India, who showed great interest in the Gas Insufflation Less Laparoscopic Surgery (GILLS) programme as a means to deliver low-cost laparoscopic surgery. Their various projects have attracted media attention, facilitated through the British High Commission in Kolkata.

Further, the GHR Group on Stillbirth Prevention and Management in Sub-Saharan Africa also reported outcomes from their engagement with Ministries of Health: *"We have informed the National guideline on maternal health in Kenya, and the strategy for stillbirth reduction in Uganda. In Tanzania, high number of stillbirths identified in our studies triggered [the Ministry of Health] to conduct medical inquiries into several hospitals to understand the reasons. In the same country, we are also contributing to the national Respectful Maternity Care policy. In Zambia, the [Ministry of Health] is using our approach to design data collection for better estimates of numbers of stillbirths in other parts of the country."*

Some GHR Groups have also achieved more local influence on policy, such as the GHR Group on Surviving to Thriving. They conducted stakeholder consultations with government representatives from the Department of Public Health and Family Welfare, the Department of Women and Child Development, and Indore Municipal Corporation: *"Consultations involving elected politicians helped build relationships and encourage them towards more inclusive urban governance. These include making water available through tankers (especially during summers) and helping informal workers obtain Government ID and other documents required to apply for benefits."*

Influence on practitioners

GHR Groups have engaged healthcare professionals and other practitioners through research, clinical training, and community engagement. For example, the GHR Group on Improving Stroke Care co-designed interventions and trained clinical staff at their sites in India: *"A Standardised Neurological Observation Schedule (SNOBS) along with a Neurological Assessment Management Plan and action tool were co-designed with clinical staff across the sites […]. The staff enjoyed the different elements of the training, especially the practical and competency assessments. They expressed how when they 'learnt from the book, they did not practice it', but after the […] training they were implementing it and noticing*

a benefit for their patients. The SNOBS has become routine practice on the ward and will help to reduce complications that can occur after someone has had a stroke, improving patient outcomes."

Other examples of positive influence on practitioners include:

- Improvements in relationships between hospital and primary care units, leading to improvements in the management and care of patients with atrial fibrillation (AF) (GHR Group on AF management)
- Local clinicians have adopted cost-effective methods for identifying depression and delivering brief therapies (GHR Group on Improving Outcomes in Mental and Physical Multimorbidity and Developing Research Capacity (IMPACT))
- Training of midwives in ultrasound (DIPLOMATIC collaboration)
- Training package for staff on respectful care and unconscious bias, to improve stillbirth support and perinatal practice (GHR Group on Stillbirth Prevention and Management in Sub-Saharan Africa (SSA))
- Training and engagement of 20 senior psychiatrists in addressing the specific needs of people with severe mental illness and those caring for them, with positive feedback and "keenness for uptake" (WIC)

Some award-holders have mentioned challenges in engaging with practitioners in a supportive and sensitive way. For example, one award-holder mentioned that local practitioners can perceive the research process and development of new interventions as overly critical of current practice and, as a result, may not be willing to engage. The award-holders noted the importance for researchers to be aware of sensitivities and cultural norms that influence practitioners' perception of research in their local context. This learning enabled them to have a more productive relationship with practitioners as the award progressed. In a similar example, researchers from the War-PATH GHR Group initially encountered resistance to new practice, although the approaches they recommended were supported by evidence. However, they were able to implement change through constructive dialogue and collaboration with a cardiothoracic team in a hospital in South Africa:

"The cardiothoracic team […] were initially apprehensive about our dosing strategy […]. They agreed to cautiously implement the dosing strategy in some of their patients and were reassured by the fact that these participants were closely followed up by our team. They

were also pleased that participants tended to reach therapeutic [International Normalized Ratio] INR more rapidly using the algorithm and subsequent adjustments than with their fixed dose strategy. By the time we moved to implementation of the bundle, the cardiothoracic team were very supportive of its implementation and referred a number of participants to us for recruitment."

While influencing policy is an important pathway to impact and long-term change, engagement with practitioners is an important way to create positive outcomes for patients and the public in the short- to medium- term. Overall, GHR Groups have engaged positively with practitioners and co-developed interventions that can improve health outcomes in LMIC settings.

Influence on individuals and community behaviours

Empowering individuals and communities and LMICs to improve individual and population health is an important aim of the NIHR GHR programmes. Many GHR Groups have reported ways through which individuals' involvement in the research and/or new interventions have impacted their health. For example, the GHR Group on Asthma Attacks Causes and Prevention in Urban Latin America reports that one of the patients with severe asthma, whom they followed up in their reference centre, has managed to stay out of hospital thanks to the intervention developed by the GHR Group. She felt encouraged by the improvement to her own health, and the further potential for cost-savings in the health system if more patients can avoid repeated hospitalizations through better management, access to medication and compliance.

The GDAR team engaged with adolescents as "citizen scientists", providing them with the skills to assess their food and built environments and to advocate for healthier environments. The GHR Group reports that *"this gave a clear voice and enabled them to identify different opportunities and challenges of healthy eating and physical activity in their neighbourhoods. Their involvement in workshops to design interventions together gave them an opportunity to be actively involved in suggesting possible solutions to address some of their challenges and identifying the partnerships or collaborations to be involved"* [GDAR]. This is an excellent example of involving communities in research and how it can increase their ownership on study design as well as results. The GHR Group on improving asthma outcomes in African children also engaged young people to improve awareness of asthma

in schools in Nigeria, Lagos, Malawi, Zimbabwe, Tanzania, Uganda, and Ghana. Their Achieving Control of Asthma in Children in Africa (ACACIA) study improved awareness and understanding of asthma by opening conversations between researchers, young asthma sufferers, their parents, teachers, and peers. All study sites referred student participants who were not on treatment to local clinics for management. This is an example of direct benefit to patients, as well as communities gaining knowledge that can help them manage common health issues locally.

Several other GHR Groups shared positive feedback they received from patients. For example, the GHR Group on developing psycho-social interventions for mental health care (GLOBE) reported that the intervention "allowed [patients] to take a more active and confident role in their treatment, and as a result they learnt to better advocate for themselves". Similarly, the War-PATH GHR Group reported positive feedback from individuals in their patient engagement events at the Uganda Heart Institute:

"During both events, we focused on educating patients about warfarin and how it works, what an INR test is and why it is important when taking warfarin. We also discussed the side effects of warfarin and the dos and don'ts when taking warfarin. We used a combination of methods for health education including speeches from study staff and patient volunteers; skits, music and dance -performed by the [Uganda Infectious Diseases Institute] IDI drama team as well as poetry and small group discussions. The feedback was really positive and there was an expression of gratitude from participants for the activities undertaken to improve their understanding of warfarin and the medical conditions that require warfarin treatment. Many participants felt more knowledgeable and confident in their care following the events." [GHR Group on warfarin anticoagulation patients with CVD in SSA]

In a different approach, the GHR Group on Surviving to Thriving carried out capacity strengthening activities in slum communities in India and Zimbabwe, supporting individuals to advocate for their health and environment:

"Throughout the project, engagement with Zimbabwean communities on the research findings has raised the levels of understanding among the workers and residents of informal settlements on the interaction between climate change and health including occupational health issues. The information they gathered from the research has also helped them to seek medical attention early, for example on some of the health challenges they face from

working with waste in dump sites etc. Moreover, the communities have also found a long-term platform for engaging the local authorities through the engagement with relevant officials on different issues (housing, social services and amenities as well as environmental issues).” [GHR Group on Surviving to Thriving]

They report that this engagement has had direct positive outcomes for communities, such as individuals accessing healthcare and social benefits, and successfully petitioning local governments to take action to improve community infrastructure.

Overall, Call 1 and Call 2 GHR Groups have successfully delivered engagement with stakeholders throughout the research lifecycle, creating positive outcomes and laying foundations for longer-term impact.

Using data for better decision-making in Brazil: an example from the GHR Group for NIHR Global Health Research Group on Social Policy and Health Inequalities led by the University of Glasgow

The Group have expanded the research potential of the 100 million Brazilian cohort created by CIDACS by adding further data: geographical information, a small area deprivation index for the whole of Brazil (Índice Brasileiro de Privação, IBP), further welfare data, and data on non-communicable diseases from hospitals. A major achievement has been the creation of the IBP. This will allow a range of users to measure and monitor inequalities in health across Brazil using a consistent measure at the small area level. The IBP can help monitor progress to Sustainable Development G targets by demonstrating that social policies and health systems are reaching all groups of the population.

Policymakers, journalists on TV and radio are now using IBP. More than 50 articles have been published by the media on websites across the country since December 2020. The research team identified six posts about IBP on websites of local governments from different municipalities and states. Various policymakers have asked for IBP databases to monitor areas, compare epidemiological information, identify vulnerabilities, evaluate social policies, guide health municipality plans etc. These are from Federal Government, the Health Ministry, State Health Secretaries, and Health Secretaries of Municipalities.

The advances made in geocoding and linkage methods are likely to improve data integration tasks and therefore to improve the accuracy of subsequent policy evaluation research.

LMIC and UK researchers trained and increased support staff capacity

3.4 Aggregate level summary across awards of individual capacity strengthening supported by at least 25% NIHR award funding

NIHR Global Health Research Academy members are individuals who receive funds from, or are supported by, an NIHR Global Health Research Programme (including the Global Research Professorship Award) to develop their academic career. This includes trainees, i.e., individuals undertaking formal competitive training/career development awards (such as Masters or PhDs), are assigned a training plan, and have a defined end to their training.

Table three below shows a breakdown of the types of degrees or qualifications undertaken by NIHR Academy trainees throughout the lifetime of the Call 1 and Call 2 GHR Groups with the percentage who are LMIC nationals (91%). The breakdown of the types of degrees/ qualifications undertaken by NIHR Academy trainees for Call 1 and Call 2 GHR Groups have been grouped into one table as these projects are complete. A separate table (table four) illustrates the training conducted by NIHR Academy trainees for Call 3 GHR Groups so far as these awards are currently active (in which 100% of the trainees are LMIC nationals). The number of trainees supported by Call 1 and Call 2 GHR Groups has increased by 42, from 129 to 171 since June 2021, reflecting the completion of trainee recruitment. As data is a cumulative count, this change may also be due to improved clarity and understanding of the definition of an NIHR Academy Trainee, with prior reporting not accounting for individuals who met the NIHR Academy member definition. There is a broad spread of trainees across the GHR Groups programme, with the majority of trainees undertaking PhDs for Call 1/ Call 2 GHR Groups (27%). This is followed by MScs (23%), and then other training levels (i.e. Research Fellow, Master of Public Health, MMed) and Post Doctorals (18% and 17% respectively). For the Call 3 Phase 1 Groups, 40% of NIHR Academy Trainees have been identified as having ‘other’ training roles, such as Research Assistant, Data Collector, and Community Engagement Specialist. It is interesting to note that these awards are recruiting larger numbers of individuals who are training within their professional role rather than undertaking a degree or ‘traditional’ academic credential. This is followed by PhD studies with 33% of trainees undertaking this type of qualification.

All award-holders are eligible to put candidates forward for the GHR NIHR Academy Short Placement Award for Research Collaboration (SPARC) and/or could offer placements through the scheme. The scheme allows NIHR Academy members to apply for a placement within a GHR Group to enhance their research training experience, CV and network and collaborate in another award. There have been three rounds of SPARC including a pilot. Call 1 and Call 2 Groups hosted 5 SPARC awards (first pilot round) in total during the period June 2021 – October 2022. One Call 3 GHR Group submitted a SPARC that was supported in Round 2 and one Call 3 GHR Group made a successful application to Round 3 in this reporting period.

GHR Group's Training Leads are also eligible to apply for a Cohort Academic Development Award (CADA) to deliver training and academic career development activities to a cohort of individuals (primarily focussed on those who are LMIC based) who are NIHR GHR Academy members and whose academic career development is being supported through NIHR GHR awards. Four Call 3 GHR Groups submitted successful CADA Round 2 applications in the reporting period.

Activities for Round 3 of SPARC and Round 2 of CADA must take place between 1 May 2023 and 31 December 2023 so outcomes will be reported on in the next period.

Table 3: Individual capacity-strengthening across GHR Groups Call 1 and Call 2

Training level	**Total number who are currently undertaking or have completed during the award period**	**% LMIC nationality**
BSc	10	100%
MSc	39	100%
MD	8	63%
MPhil	1	100%
MRes	7	100%
PhD	47	89%
Postdoc	29	83%
Other	30	93%
Total	**171**	**91%**

Table 4: Individual capacity-strengthening across GHR Groups Call 3 Phase 1

Training level	Total number who are currently undertaking or have completed during the award period	% LMIC nationality
BSc	1	100%
MSc	8	100%
MPhil	1	100%
PhD	26	100%
Postdoc	11	100%
Other	31	100%
Total	**78**	**100%**

LMIC institutional capacity strengthened

3.5 Delivery partner's summary of evidence of activities and outcomes from across awards demonstrating how NIHR funding has helped to strengthen LMIC institutional capacity to contribute to and lead high quality research and training within a national research ecosystem.

The GHR Groups programme provides funding for institutional capacity strengthening, as per the NIHR GHR core guidance for applicants and finance guidance.

NIHR also provided add-on funding to support institutional capacity strengthening via the Financial Assurance Fund (FAF). Call 1 and Call 2 GHR Groups were eligible to submit FAF applications to support LMIC institutions to develop their financial management capacity specifically. For example, award-holders could request funds to support LMIC institutions in undertaking Good Financial Grants Practice (GFGP) self-assessments and/or accreditation. NIHR ran four FAF calls including a pilot in May 2018, then three calls in September 2018, April 2019, and November 2019. In total, NIHR awarded FAF awards to five Call 1 GHR Groups and four Call 2 GHR Groups. Outcomes across included:

- Workshops and training courses for finance managers
- Applications and support for GFGP accreditation

- Purchases of software and training in how to use it, including consultancy fees in some cases
- Development of manuals, processes and procedures
- Compliance audits

An example of the benefits realised through the FAF award realised for one Group award was:

“The Project has taken strong steps towards strengthening the financial capacity of our project partners Zimbabwe Chamber of Informal Economic Associations (ZCIEA). The interventions included training for currently unqualified treasurers, who support 42 territory offices around Zimbabwe. With improved governance and financial controls, the hub office will be able to extend their new ways of working to the territory offices beyond the FAF period, thereby putting the organisation as a whole in a stronger position to manage their funds and better supporting informal workers across Zimbabwe.“ [GHR Group on From surviving to thriving: Assessing and responding to occupational and public health risks in informal settlements and for informal workers and the effects of climate change on these risks: Building learning from India and Zimbabwe at the IIED]

GHR Groups reported sustainable approaches to developing individuals and institutions, with examples of ‘train the trainer’ and training support networks cited across several reports. A strong commitment to CEI informs study design and training activities tailored to community issues. Local ownership is encouraged through membership of management committees, equitable budgets for local investigators leading the research, and LMIC-led authorship on publications. GFGP training and workshops also add significant value to institutions, with 7 Call 1 and Call 2 GHR Groups reporting progress and accreditation across LMIC partner organisations attaining 7 Bronze and 3 Silver GFGP accreditations.

GHR Groups also supported the development of research and health infrastructure in LMICs. Infrastructure support included the establishment of research units and centres of expertise including laboratory capacity, refurbishments to health and/or research facilities, purchases of IT equipment, and technological innovations. For example, the GHE2 team developed a digital platform that allows users to run reports on various datasets related to Brazilian population health. The GLOBE GHR Group developed the DIALOG+ app further to suit the needs of their partners in South America, and ensured it was made freely available

for use in LMICs. The GHR Group on Global Surgical Technologies established a registry to support evidence-based surgical practice in rural India:

“A [Gas Insufflation Less Laparoscopic Surgery (GILLS)] registry was set up to record surgeries performed by our rural surgeons. The Registry captured data on type of surgery undertaken, rates of conversion to open surgery, the reasons for conversion, the complication rate (equipment malfunction and clinical safety), the learning curve for GILLS and a health economic evaluation in 3 sites in the Northeast (Assam, Manipur, Medzephima). The registry ran until the end of May 2020 with over 350 operations captured within a 6-month time frame. The data is currently being analysed and will be published. Ownership of database will be transferred to the Association of Rural Surgeons of India (ARSI) to enable them to continue to support the safe implementation of GILLS.”

These contributions support the sustainable development of research capacity in LMICs and have the potential to lead to improvements in health outcomes in the longer-term.

Finally, table five below shows the aggregated distribution of support staff in both Call 1 and Call 2 GHR Groups (completed awards) and Call 3 GHR Groups Phase 1 respectively (active awards). Larger numbers of support staff are employed in LMIC institutions than in HICs for all Group Calls. The need for more support staff in LMIC institutions reinforces the fact that there are more research activities, data collection, fieldwork and dissemination conducted in LMICs compared to HICs. Due to the Call 3 Phase 1 GHR Groups being in the early stages of their research lifecycle, it is anticipated that the employment of support staff will increase as these awards progress.

Table 5: Distribution of support staff across Call 1, Call 2 and Call 3 – Phase 1 Groups

Total number of FTE support staff (research managers, finance, admin, community engagement practitioners, other) in post during the last 12 months - note that this may not be a whole number depending on institutional employment policies* **e.g. if an institution employs 5 support staff, of which 3 work full time for 12 months, 1 works full time but leaves after 6 months, and 1 works 1 day/week for 12 months, the total reported would be: 3 + (1*0.5) + 0.2 = 3.7 FTE*		
	Employed in LMICs	**Employed in HICs**
Call 1 Groups (n = 20)	60.53 (77%)	18.07 (23%)
Call 2 Groups (n = 20)	95.79 (84%)	18.58 (19 (16%)
Call 3 Groups, Phase 1 (n = 8)	41.81 (87%)	6.08 (13%)
Total (n = 48)	198.13 (82%)	42.73 (18%)

Powerful data for better disease surveillance: an example from the GHR Group on genomic surveillance of malaria in West Africa

This GHR Group led the development of an open cloud computing platform that enables rapid upgrades of local analysis software, such as the ability to incorporate technical improvements or new information about resistance markers and enable different labs to share and integrate data. The data resource is an open dataset of *P. falciparum* (malaria) variation in 20,000 worldwide samples from 33 countries. Building on previous data resources, this new tool is an important step to connecting public health professionals as it provides summary information about genetic markers of drug resistance for Artemisinin, Chloroquine, Mefloquine, Piperaquine, Pyrimethamine and Sulfadoxine in these samples. The integrated, open access data resource and User Tools aggregate data generated using three different technologies for more than 13,000 samples from 30 countries.

You can read more about the GHR Group's work on the Malaria Genomic Epidemiology Network website. The Group has secured further funding in Call 3 to continue their work.

Genomic modelling and sequencing to support the COVID-19 response in Africa – an example from the GHR Group on the Application of Genomics and Modelling to the Control of Virus Pathogens (GeMVi) Group

Kenya's emergency response to the outbreak using modelling and sequencing was enhanced through the capacity established by GeMVi. The GHR Group's researchers in Kenya contributed to the National COVID-19 Modelling Technical Committee that evaluated countrywide modelling output to develop messages that informed policy decisions by the Ministry of Health. The Technical Committee regularly responded and reported to the Ministry of Health and Presidential Policy Unit. In Uganda, at the Uganda Virus Research Institute (UVRI), GeMVi Fellows contributed to the SARS-CoV-2 laboratory diagnostics and sequencing efforts.

Read more about this award on their website.

Equitable research partnerships established or strengthened

3.6 Delivery partner's assessment of the extent to which this NIHR funding has contributed towards building or strengthening equitable research partnerships/collaborations (where applicable, including engagement with communities).:

Equity of partnerships is a core principle and funding criterion for all NIHR Global Health Research funding, including GHR Groups (see Call 3 guidance). To achieve this, all GHR Groups were required to set up equitable systems of governance and provide evidence that LMIC members were appropriately and equally represented in all aspects of the research and in relation to their UK counterparts. The approaches to strengthen equity often include establishing clear Terms of Reference to ensure implementation of good practices in promoting equity in areas like leadership and in developing future leadership capacity at all levels, project management, recruitment of local research teams, diversity and inclusion in research prioritisation activities, communications, and publication practices.

NIHR supports this process by regularly monitoring the distribution of resources, including staff, technology, and infrastructure, to ensure resources and costs are allocated fairly. This is achieved through quarterly financial reporting as well as ad-hoc reviewing of significant project and/or budget changes. NIHR also ensures milestones and activities are on track to deliver on funded objectives through regular check-ins with award-holders and annual progress reports. GHR Groups demonstrated equity in their partnerships throughout the research lifecycle, for example, by promoting:

- Balanced nationality and representation of UK and LMIC-based research team members
- Gender balance in research teams, including in leadership roles at all levels

- Appropriate allocation of resources reaching LMIC contexts
- Use of available LMIC expertise and support for further local capacity development including for non-academic support staff and community partners
- Establishment of research priorities with and for the benefit of LMIC beneficiaries
- Equitable leadership of the work programme and packages across all partners and policies to ensure recognition of all partners contributions through publications by supporting equitable distribution across both LMIC- UK and genders of authors whilst further encouraging early and mid- career authorship.

"Our finest achievement in this first year is probably the equal engagement of all partners in fundamental discussions about how to embed sustainability and capacity building, not merely of project partners, but also of national and community stakeholders." [GHR Group on Building Partnerships for Resilience: strengthening responses to health shocks from the grassroots]

Despite challenges during the pandemic, engagement continued through virtual means and focussed on supporting LMIC partners. Some particularly good examples of joint leadership and equitable partnerships are highlighted below. For example, the GHE2 GHR Group reported how all partners worked together to create joint outputs and exchange knowledge:

"Central to GHE2's approach has been working towards joint outputs and sharing expertise between teams; for example, the UK team has collaborated with all teams on the production of their methodology papers, using the interventions under investigation by other teams as case studies (Love-Koh, Mirelman, Suhrcke; 2021). In addition, teams advised one another and shared resources for similar activities; for example, the South Africa team provided the Brazil team with a participant – feedback form template which they used for their short-course training activities."

The GLOBE GHR Group reported that the UK team supported their partners with developing their own research interests and the direction for additional research deliverables. For example, the research team in Uganda increased their scope of work by introducing an additional sub-study to explore patient representation in clinics. They had noted this as a concern that they faced during the project implementation phase, where family members were found to often attend clinical appointments instead of the patient. This is a good

example of the UK partner enabling LMIC partners to identify and respond to new research pathways.

"The Project Management Group included lead investigators from each partner, as well as coordinators and project, training and capacity leads. Research studies were jointly led and students co-supervised by researchers at all multiple institutions. Key activities such as recruitment, new datasets or potential collaborations were undertaken jointly. Publications reflect the joint leadership and development of this research with authors from SSA partners represented as first and/or last authorship positions. By working closely together, developing strong personal relationships, and undertaking high quality productive research where all partners are actively involved and represented, we have ensured these partnerships are sustainable and productive over the long term." [GHR Group on improving outcomes in sub-Saharan African diabetes through better diagnosis and treatment at the University of Exeter]

All GHR Groups also aim to achieve equity of ownership of outputs and capacity strengthening in peer-reviewed publications. For example, the LINKS Group described their explicit approach to enable early- and mid-career researchers to lead on publications:

"The co-authorship of research outputs is now underway and, as described earlier, involving an explicit publications strategy that prioritises opportunities for early- and mid-career researchers to be co-authors and lead authors. Moreover, the 'live' spreadsheet allows all partners to identify areas of interest to publish work around, individually or in partnership with the wider research team and US academic partners. This approach enables building capacity and ownership around areas of research expertise to bring about local, national and international impact."

In addition to equity between HIC and LMIC partners, and between junior and senior research team members, award-holders also reported on their approach to preventing discrimination and protecting vulnerable groups. This is described further in Section 5 (Value for Money – Equity).

Overall, all award-holders have provided a range of evidence demonstrating the partnerships were equitable and addressed real needs for LMIC partners. Many GHR Groups reported how valuable these partnerships were for UK and LMIC partners alike. Several Call 1 and Call 2 GHR Groups reported that the development of networks with global

partners and stakeholders was one of the primary benefits of GHR Group funding and enabled the delivery of valuable research.

3.7 Aggregated HIC/LMIC spend across all awards

Tables 5 and 6 below show the distribution of funds for GHR Groups across UK and other High-Income Country (HIC) institutions, and LMIC institutions. While all funding across institutions (regardless of location) must be for the primary benefit of LMICs, NIHR considers the distribution of funds as an important measure of research capacity strengthening and equity in partnerships. Alongside other indicators found in this report, it provides important evidence of investment into staff, infrastructure, training, and CEI in LMICs. As shown below, the majority of funding in GHR Groups Call 1 and Call 2 was allocated to UK and other HIC institutions. However, it is close to being evenly distributed and funds directed to the UK are quite often used to facilitate direct support for LMIC led activities, whether supporting administration burdens or to facilitate, for example, purchase of equipment and/or consumables where barriers are experienced within LMICs. In addition, NIHR anticipated that LMIC institutions applying to GHR Groups in later calls would demonstrate more capacity to lead on and/or deliver more activities independently, through receiving prior funding from NIHR/other global funders and/or through increased awareness of the GHR Groups programme and improved institutional capacity. The increased proportion of funding allocated to LMIC institutions in Call 3 GHR Groups funded in Phase 1 (Table 6) appears to confirm this expectation. However, NIHR will continue to scrutinise and monitor budgets as part of its effort to ensure equity and value for money across the programme.

Table 5: Aggregated spend across Call 1 and Call 2 GHR Groups

	Call 1 total committed amount (GBP) allocated to:	**Call 2 total committed amount (GBP) allocated to:**	**Total across Call 1 and Call 2**	**% of total committed amount:**
UK/HIC institutions	£26,476,575	£22,009,229	£48,485,804	54%
LMIC institutions	£18,383,930	£23,253,786	£41,637,715	46%
All institutions	£44,860,505	£45,263,015	£90,123,530	100%

Table 6: Aggregated spend across Call 3 GHR Groups (Phase 1)

	Total committed amount (GBP) allocated to:	% of total committed amount:
UK/HIC institutions	£9,019,205	42%
LMIC institutions	£12,285,084	58%
All institutions	£21,304,289	100%

4. Value for money

- Delivery partner's summary of evidence from across awards demonstrating activities during the past year to ensure value for money in how the research is being undertaken. This must include narrative on:
- Economy - how are you (the delivery partner) ensuring that funding is being spent on the best value inputs?
- Enhanced efficiency - how are you (the delivery partner) maximising the outputs (research and innovation outputs, knowledge exchange, strengthened researcher and support staff capacity, strengthened partnerships/networks) for a given level of inputs?
- Effectiveness - how are you (the delivery partner) assessing that the outputs deliver the intended outcomes?

Economy

Standardised financial governance across institutions ensures that budgets are used effectively; purchasing is open to tender, approved suppliers are used, and costs remain modest. Rising costs are cited as a challenge but programme leads adopt a flexible approach and a willingness to exploit cost-saving measures through network relationships, acquiring donated/bulk purchased consumables, accessing free training courses, and knowledge-sharing. This is illustrated by the following example from the University of Exeter:

“Working in partnership allowed us to make use of economies of scale through the sharing of resources and expertise in supervising research students. Each institution brought a much wider range of knowledge and skills than that directly involved in the project. We have been strategic and pragmatic in procurement between partners to ensure the group as a whole incurs the lowest costs possible. The combined purchasing strength of Exeter University and Exeter Clinical Laboratory has allowed the group to benefit from reduced rates for lab consumables and monitoring equipment, through established reduced supplier rates and

competitive pricing." [GHR Group on improving outcomes in sub-Saharan African diabetes through better diagnosis and treatment at the University of Exeter]

Efficiency

Periods of restricted travel, and rising costs, have resulted in the adoption of more efficient work practices. Where international travel is required, teams take care to make the best use of time, scheduling conferences, partner meetings, and training events during the same visit. Relationship-building across institutions and partnerships provides opportunities to leverage on existing infrastructures, avoid the duplication of effort and make cost savings.

"The project has capitalised on research expertise and strengths across the entire partnership enabling the most suitable investigators to lead and co-develop the respective workstrands. A pool of researchers across the partnership with complimentary skills are encouraged and supported to work on the relevant strands of the project and to provide "cross-cover" in the event of indispositions, as well as different perspectives when there is a full complement of staff." [GHR Group on PReterm bIrth prevention and manageMEnt (PRIME) at The University of Sheffield]

Effectiveness

Recruiting staff with the most suitable skills, and choosing directly employed local staff where possible, saves time and makes great use of existing local and contextual knowledge. Engagement with policy makers, stakeholders, and the community all help to build the strong relationships needed for programmes to operate effectively. These relationships are then utilised to leverage opportunities to promote research and deliver impactful outcomes.

"Training and capacity building of our research teams in all our partner countries is an extremely effective way of achieving value for money. These researchers will continue to be involved in the further implementation of research studies and their skillset is an invaluable resource to their institutions and beyond. In Pakistan, the team utilised a group of trained lay health workers to deliver the interventions which is a much more cost efficient and effective delivery mechanism in an environment where skilled mental health staff is scarce and awareness about such disorders is low." [GHR Group on developing psycho-social interventions for mental health care, Queen Mary University of London]

4.1 Equity

- Please summarise any activities that have taken place to ensure everyone is treated fairly as part of the application process and within funded research teams, regardless of gender, gender identity, disability, ethnic origin, religion or belief, sexual orientation, marital status, transgender status, age and nationality.

NIHR openly recruits and appoints the GHR Groups Funding Committee to achieve a balance between gender, nationality, geographical balance whilst ensuring the inclusion of a range of relevant Global Health Research expertise. Diversity data is collected for non-UK members on age, sex, disability, and nationality until scoping work to determine the most appropriate global Equality, Diversity and Inclusion (EDI) data collection categories has been undertaken by NIHR as part of their research inclusion action plans.

In keeping with NIHR's requirement for collection of EDI metrics, award holders reported the importance of EDI considerations in their policies, processes, and practices. EDI is widely reported as having factored into award holders' decisions about recruitment, further training, and career development opportunities provided to research teams. For example, the GHR Group on Dementia Prevention and Enhanced Care (DePEC) described how they ensured local research staff with disabilities could still take part in the research:

"[…] two enumerators in Tanzania initially stated they were unable to be involved in the project due to visual problems and physical disability. To exclude them from working in our team would have been discriminatory. We thus arranged for them to be assisted by young people in their village who had good vision/mobility so that they could continue with their role."

GeMVi also provided another example of an explicit approach to prevent discrimination:

"In the applications for Research Fellowships, equal opportunity was given to all who applied, without discrimination based on gender, age, people living with disability, or any other protected category."

Overall, NIHR has received satisfactory evidence from all GHR Groups with regard to their approach to equity across all global partners and continued commitment to embed this with all aspects of the research partnerships. For example, see Section 3.6 – Equitable research partnerships established or strengthened for more detail.

- How are you (the delivery partner) ensuring that the funded research benefits vulnerable groups to improve health outcomes of those left behind?

NIHR launched the Equality, Diversity and Inclusion (EDI) strategy in September 2022. All NIHR staff are expected to follow and promote policies and strategies on EDI across the research management pathway.

NIHR fully inducts GHR Groups Funding Committee members on call and eligibility requirements, in addition to considerations of unconscious bias, and equity issues within the research and across the team and wider stakeholders as part of the funding assessment process. The advertised call eligibility and selection criteria include consideration of equitable research partnerships, capacity strengthening activities, governance arrangements and budgets between LMICs and the UK. The engagement of community beneficiaries and wider stakeholders, including members from the most vulnerable groups, is required to ensure the research will proactively address causes of health inequalities and promote improved health outcomes.

During the monitoring of the awards, NIHR research managers look for evidence of engagement with vulnerable groups in reports and data collection. If this evidence is lacking, they ask for follow-up information and/or explanations of the challenges in engaging vulnerable groups. In turn, research teams have widely reported that they have involved vulnerable and marginalised groups at all stages of research, starting with research design. Specifically, award-holders have recognised the key role of local communities and an equitable approach to engagement to enable them to achieve the aims of the research in the relevant context:

"All our projects are co-designed with or fully designed by our collaborators which helps to not only secure ownership but also make sure we are addressing issues rooted in the deep understanding of the local reality which combined leads to meaningful research and impact by highlighting vulnerable groups." [GHR Group on Neurotrauma, University of Cambridge]

Several examples in the other sections of this report also illustrate the benefits of the research for vulnerable groups in LMICs, such as the highlight boxes across the report **(particularly Sections 2.1 and 3.6).**

Ensuring equitable research partnerships: an example from the GHR Group on Improving Stroke Care, University of Central Lancashire

Research collaborations between HICs and LMICs are normally set against a backdrop of inequities, often generating power imbalances between partners that researchers must recognise and address.

The University of Central Lancashire (UCLan), the contracting organisation for this award, was the first UK institution to adopt a new ethics code for research projects conducted in LMICs. The Global Code of Conduct for Research in Resource-Poor Settings (GCC) aimed to help funders, researchers, communities, and individuals to recognise and address potential ethical pitfalls.

IMPROVISE, one of the projects funded by this award and among the first research projects hosted by UCLan to implement the GCC, focussed on addressing priorities in stroke care in India; around the elements of care identified as priorities, 'care bundles' for evaluation were co-developed with stakeholders in India. The GHR Group have described the implementation of the GCC and how it can promote equity within international collaborations in an open access paper. The paper highlights how GCC can help in ensuring local relevance of research, meaningful involvement of the local communities and researchers, and sensitivity to local norms. For example, it makes recommendations relating to ethical approvals and implementing robust and culturally appropriate procedures for participant complaints/feedback.

Read more about this award on the NIHR Funding and Awards website.

5. Risk

5.1 Delivery partner to summarise the five most significant risks (both in terms of potential impact and likelihood) across awards within the last year.

Table 7 and table 8 show the five most significant risks, listed in risk registers, across the 40 Call 1 and Call 2 GHR Groups and the eight Call 3 GHR Groups respectively, as well as the strategies the project teams have implemented to manage and mitigate these risks. Since GHR Groups commonly record the same risk types several times, the number of GHR Groups citing the risk is also given to provide an indication of risks spread across the portfolio. The five most significant risks for Call 1 and Call 2 GHR Groups have been grouped into one table as these projects are now complete. A separate table (table 8) illustrates the five most significant risks for the Call 3 GHR Group Phase 1 projects as these awards are currently active.

Operational related factors are the most prevalent risks identified, with governance/ legal the second, and finance the third for both the Call 1 and Call 2 GHR Groups and Call 3 GHR Groups Phase 1. The operational risks highlighted by the teams focused mainly on project set-up delays, lack of or poor engagement with project partners and key stakeholders, and hold ups experienced with the recruitment of study participants/ patients. For governance/ legal risks, conflicts of interest, lack of robust strategic direction, and non-compliance with protocols and regulations all featured highly. The most mentioned finance risks were concerns regarding exchange rate fluctuations and the impact of inflation on budgets, as well as poor financial management processes and procedures. Challenges regarding the recruitment/ retention of project staff were identified 58 times in 29 risk registers for Call 1 and Call 2 GHR Groups. As a result, this has a risk category of its own. As a risk, these challenges did not feature as highly for Call 3 GHR Groups Phase 1 awards.

The COVID-19 pandemic was recorded as a more common and significant risk under the external risk category for the Call 1 and Call 2 GHR Groups, impacting their ability to conduct project research in certain areas and to engage with stakeholders and research participants. Travel risks were also referenced as a concern due to the COVID-19 pandemic. The external risk factors for the Call 3 Phase 1 GHR Groups focus more on the increased cost of living.

The varied external risks identified for the different Calls are reflective of the challenges that were experienced, or are now being experienced, globally.

Table 7: Top 5 risks across GHR Groups Call 1 and Call 2

	Risks	How is the risk being managed/mitigated?	Current status/ distribution
1	**Operational factors** such as lack of /or poor communication, absence of cooperation from project stakeholders, failure to collect baseline data, project set-up delays, low validity/ reliability of results, loss or damage of project equipment/ data, unavailability of appropriate resources, studies not meeting participant recruitment targets, lack of cooperation from study sites	Clear communication strategy created at project start-up phase to remain in place throughout the project; networking events and regular meetings designed to create strong working relationships between researchers and stakeholders; training to ensure consistent result assessments across research sites; an asset register and regular equipment inspections are in place; encourage teams to purchase required resources with available budget; regular monitoring of patient recruitment to studies; patients will be recruited from communities in which they are familiar; provide ongoing training for project members involved in patient recruitment; actively engage and involve all partners/ stakeholders throughout the lifetime of the project to facilitate joint ownership of the research.	231 mentions in 38 risk registers
2	**Governance/ compliance factors** which include conflicts of interest, ineffective organisational structures, lack of engagement and cooperation from key stakeholders, lack of/ poor strategic direction, delays with contract/ agreement signing, challenges with implementation of appropriate legal legislation, non-compliance with regulations, ethical approval delays	Institutional policies in place for recruitment processes; agree protocol for disclosure of potential conflicts of interest; clear governance/ organisational structures established and communicated between local and international partners; implementation of an independent Advisory Group to provide strategic and research direction; well established meetings between Pis and project team members; ensure contract teams are aware of timelines for the signing process; pro-active encouragement of all partners to sign collaboration agreements promptly; set clear milestones and define follow-up action for non-compliance; clear adherence to regulatory and ethical approvals; ethical applications are prepared in advance; regular reporting at project meetings.	175 mentions in 38 risk registers
3	**Financial risks** such as exchange rate fluctuations and inflation affecting research costs, poor financial management, insufficient budget leads to overspend, budget underspend, financial systems in LMICs are not sufficiently robust, fraud and corruption, challenges in transferring funds to LMIC partners, delays experienced with the release of funds from	Carefully budget and monitor expenditure as well as exchange rate fluctuations; ensure financial processes (such as control and reporting systems as well as procurement policies and supply chain management) are in place; regular reviews of workplans against budgets; budget forecasting is verified by both the UK and LMIC partners in order to predict potential financial shortfalls; close monitoring of remaining funds against original budget with adjustments to spend profile conducted if required; early communication with NIHR regarding funding delays to resolve issues; good	106 mentions in 33 risk registers

	NIHR, inability to demonstrate value for money	professional relationships and understanding between partners.	
4	**External factors** which highlight mainly the effects of the COVID-19 pandemic on research studies and project staff. Other risks include language barriers, travel risks, illness/ sickness, public holidays causing disruption to research activities, crime/ violence in partner countries	Develop flexible protocols to allow alternative means of data collection, training, and dissemination (i.e. remote); risk assessments specific for each country which are reviewed regularly; researchers speak the local language, or have an in-country colleague who can support with translating when collecting data; adhere to government travel guidance and keep in close contact with in-country colleagues; seek government foreign travel advice in advance of travel with planned alternative routes and travel methods; workshops and international visits should be organised outside of public holidays; provide regular updates on COVID-19 cases with risks to staff and patients minimised by following relevant SOPs (i.e. PPE, handwashing, distancing).	79 mentions in 28 risk registers
5	**Challenges with recruitment/ retention of project staff** and expertise/ relevant skills within research teams	Implement relevant training programmes with regular mentoring and supervision; clear and robust handover mechanisms are in place; knowledge sharing to pass on skills and expertise; clear procedure documents for consistency of research implementation; detailed SOPs and delegation logs to orient new staff members; contingency plans for research deliverables; regular circulation of NIHR/ other stakeholder training opportunities; assess staffing levels frequently; implement a train the trainer model so project specific staff can train others when required; regularly review interview and assessment processes; agree fair and open competition for key posts; advertise roles widely by reaching out to existing networks.	58 mentions in 29 risk registers

Table 8: Top 5 risks across GHR Groups Call 3 – Phase 1

	Risks	**How is the risk being managed/mitigated?**	**Current status/ distribution**
1	**Operational factors** such as loss of key staff and expertise, delays experienced with staff recruitment, lack of engagement from partners and key stakeholders, delays in recruitment of study participants, data collection targets not met, insufficient technology and infrastructure provision	Advertise roles widely and adjust the role requirements to widen the pool of suitable applicants; actively engage and involve all partners/ stakeholders throughout the lifetime of the project (via regular meetings) to facilitate joint ownership of the research; implement relevant training/ capacity building programmes with regular mentoring and supervision to enhance career opportunities; conduct routine reviews of participant recruitment strategies to optimise enrolment and response rates; review staff/ study participant recruitment/ retention strategies and create targeted solutions; monitor data collection against enrolment targets and timeframes; use familiar technologies; utilise SharePoint so that	84 mentions in 8 risk registers

		project information can be stored centrally and easily accessed.	
2	**Governance/ legal factors** including ethical approval delays, non-adherence to ethical protocols, conflicts of interest, ineffective organisational structures, poor strategic direction, non-compliance with legislations and regulations, safeguarding, delays in obtaining institutional clearance	Research staff to receive Good Clinical Practice/ ethics training; familiarity with ethics frameworks in partner countries and relevant procedures followed for all research activities; disclosure of potential conflicts of interest to be addressed during recruitment; project organograms illustrating roles and responsibilities; implement compliance monitoring and reporting methods; processes for reporting incidents/ concerns; safeguarding implementation plans and relevant training; commence institutional clearance applications once project has been confirmed; sufficient time allocated for institutional processes within the project timeline.	35 mentions in 7 risk registers
3	**Financial risks** covering exchange rate fluctuations and inflation affecting research costs, fraud, partners not complying with financial management procedures, poor financial management and inadequate financial controls, procurement delays, hold ups in transferring funds to LMIC partners	Close monitoring of budgets with quarterly forecasting of expenditure; consistent monitoring of partners via periodic reporting and audits; allocation of funds to partners made in arrears on receipt of invoice; financial support and training available for partner institutions; review financial control procedures regularly; collaboration agreements to detail all financial reporting responsibilities and associated timelines; procurement processes initiated prior to goods/ services being required.	28 mentions in 6 risk registers
4	**External factors** such as the effects of the COVID-19 pandemic on research studies and project staff, safety of research team, travel restrictions, increased living costs which affect staff and patient attendance	Develop flexible protocols to allow alternative means of data collection, training, and dissemination (i.e. remote); provide staff training to include use of PPE and adherence of COVID-19 protocols at health facilities; implement a system in which project staff can report safety concerns; design of virtual training sessions; regular communication with staff and review of salaries to reflect increased living costs.	21 mentions in 7 risk registers
5	**Political risks** such as political and economic instability, civil war/ unrest, protests affecting research teams and patients, terrorism	Maintain close contact with relevant individuals in partner countries to identify and evaluate emerging risks; conduct security risk assessments prior to visits; implement early warning and response systems; conduct routine surveillance of research activities to ensure staff and participants are safe; avoid primary data collection during periods of tension; increase level of communication if tensions arise.	14 mentions in 7 risk registers

5.2 Fraud, corruption and bribery. Delivery partner to summarise:

- their approach to handling accusations of fraud, corruption and bribery (if not covered in previous reports)

- any changes in the last year to the anti-corruption strategy applied to managing NIHR funded awards

NIHR staff and award-holders must abide by all regulatory and legislative frameworks in relation to research practice, transparency, and governance. NIHR sets out expectations for award-holders in the standard ODA Research Contract and provides guidance and information on financial management (see also NIHR Research Funding Good Practice Guide). NIHR follows the government approach to whistleblowing, inviting reports of any alleged wrongdoing within NIHR awards and handling these confidentially. Anyone can use the NIHR incident reporting form to raise concerns or instances of fraud, corruption, bribery, or other misconduct. Fraud concerns and incidents reported to NIHR are shared with the DHSC anti-Fraud team. Each concern is fully investigated, ensuring individuals are confident and protected in bringing matters to the attention of NIHR staff.

Annually, NIHR provides a high-level report to DHSC summarising all incidents or concerns pertaining to Fraud, Safeguarding, Security and misconduct reports received and their status. A centralised risk and issues register is managed by the cross NIHR assurance lead to ensure join up across NIHR coordinating centres managing ODA funded awards. There have been no allegations or concerns raised for GHR Groups awards, in relation to fraud, corruption, and bribery across the programme during the reporting period.

NIHR finance teams review comprehensive financial reports from award-holders quarterly. Financial reporting processes have been updated between GHR Groups Call 2 and Call 3. Quarterly financial reports from Call 3 onward include transaction listings, to spread the effort throughout the lifetime of the awards and simplify final reconciliations at the end of the contract. For Call 1 and Call 2 GHR Groups, NIHR conducted periodical spot-checks for invoices and receipts on transaction reports and deeper dive audits to follow up on any irregularities or ineligible items or costs to ensure good financial practice. A full audit is also in process for Call 1 and Call 2 GHR Groups as part of financial reconciliation.

Award-holders reported that project teams and their partners have policies and established systems for monitoring and reporting of fraud, corruption, and bribery. However, there have been no such allegations against GHR Groups or other related issues within the programme during the reporting period.

5.3 Safeguarding

- Please detail and highlight any changes or improvements you (the delivery partner) have made in the past year to ensure safeguarding policies and processes are in place in your project and your downstream partners.

All award-holders must abide by Safeguarding Provisions in the NIHR standard ODA research contract and the NIHR policy on Preventing Harm in Research. Any concerns or confirmed breaches of safeguarding policies are required to be reported via the NIHR incident reporting form available on the website. The NIHR safeguarding lead handles all reports confidentially and captures concerns on a cross-NIHR GHR risk and issues register in line with agreed policies and internal procedures.

Annually, NIHR reports the number, type and status of any concerns or incidents of misconduct including safeguarding with DHSC as part of NIHR-wide concerns and incident misconduct reporting processes. The cross-NIHR Safeguarding Working Group continuously reviews policies and procedures to ensure they are fit-for-purpose. NIHR applied learning from across all NIHR programmes to the development of a single NIHR policy on Reporting Misconduct in NIHR Research during the period, ahead of a planned launch in 2023.

Award-holders reported having suitable safeguarding policies in place. Generally, projects reported that they have either set up specific policies for their project, have followed existing policies of partner organisations, or have borrowed from the policies of similar in-country organisations.

- Aggregate summary of safeguarding issues that have arisen during the reporting year

There has been one allegation raised against a Call 2 GHR Group during the reporting period (June 2022). NIHR was assured that the issue, relating to an allegation of bullying, was appropriately investigated and actioned. The award-holder submitted a report detailing actions and lessons learned and made changes to the research team. NIHR recorded the issue as resolved in September 2022.

There have been no other issues reported across the GHR Groups programme. Award-holders commonly reported having appropriate procedures and policies in place, with specific training on and resources about safeguarding often made available to research teams.

5.4 Please summarise any activities that have taken place to minimise carbon emissions and impact on the environment across this funding call.

NIHR convened an independent virtual funding committee to assess GHR Groups Call 3 applications, providing the most sustainable means to assess applications to the GHRU programme. NIHR expects all award-holders to follow and monitor their research activities against the NIHR Carbon Reduction Guidelines. This is outlined in call guidance, start-up information and progress reporting guidance. NIHR monitors compliance through a question on carbon reduction measures in each annual report. NIHR also encourages award-holders to consider alternatives to air and other carbon-emitting travel when reviewing changes to activities and/or budgets. Award-holders have acknowledged that travel restrictions linked to the COVID-19 pandemic showed that many research activities can be effectively carried out in hybrid, online or remote formats. The associated cost savings and reduction in environmental impact have been noted and continue to be pursued where appropriate.

6. Delivery, commercial and financial performance

6.1 Performance of awards on delivery, commercial and financial issues

For Call 1 and Call 2 GHR Groups, NIHR is currently reviewing final expenditure against budgets based on the Final Reconciliation (FSTOX) submitted by the award-holders. The information provided reflects the status of the awards as of June 2023.

Call 1 and Call 2 GHR Groups

Underspend for Call 1 GHR Groups varies from 0% to 11%. Overall, the total underspend for Call 1 Groups is approximately 3%. It is expected that final expenditure, including dissemination currently taking place after the end of the contracts and for up to two years, will be on target for this call. In terms of financial issues, two award-holders have been found to have significant issues with claiming ineligible items in their expenditure statements and/or not providing sufficient evidence to support expenditure. Through further investigations, NIHR finance teams found the discrepancies to be minor. Both issues have since been resolved, and any ineligible items have been removed from the award budgets.

Underspend for Call 2 GHR Groups varies from 0% to 7%, with one award overspent by 3%. The Contractors will be underwriting the overspend. Overall, the total underspend for Call 2 is just 1%. It is expected that final expenditure, including dissemination currently taking place after the end of the contracts, will be on target for this call. In terms of financial issues, one award has been found to pay invoices from partner institutions without verifying the validity of expenditure. Further, the award-holder has claimed costs for ineligible items. NIHR takes matters of financial mismanagement extremely seriously, and finance staff have actively been working through these issues to ensure they are resolved. This is currently being done through the review and audit of the award's FSTOX report.

Other financial challenges reported by award-holders included difficulties in transferring funds to LMIC institutions, challenges in forecasting, and underspends caused by the pandemic. One award-holder has been unable to transfer funds to partners in Afghanistan given the fragility with the *de facto* regime causing problems due to the lack of suitable and

safe banking and monetary transfer mechanisms. The UK Contractor and NIHR continue to seek a solution to enable partners to be paid. Some award-holders also had difficulties with the Goods and Services Tax introduced in India in 2018, which prevented some partners in the country from claiming certain categories of expenditure. This was resolved by the UK Contractors paying directly for those budget items.

A common challenge for LMIC institutions is the NIHR payment of funds quarterly in arrears, as LMICs do not have reserves to cover upfront costs. NIHRCC Finance teams work with awards to support accurate forward budgeting and explore approaches which can lessen the impact of this. Overall, however, most GHR Groups were able to overcome any financial challenges without major disruptions to their programme of work. Finally, five of the 40 Call 1 and Call 2 GHR Groups mentioned the high burden of financial reporting at the end of the award as all partners must submit invoices and receipts for auditing. Since 2022, NIHR has revised its procedures for financial reporting, requesting transaction lines and invoices quarterly rather than at the point of reconciliation at the end of the award. Call 3 GHR Groups are following this new process, which should help spread the administrative effort across the award and simplify final reconciliations.

NIHR recognises that financial guidance has evolved significantly since Call 1 and Call 2 GHR Groups were funded in 2016 and 2017. The new processes outlined above should address some of the issues arising from Call 1 and Call 2 financial reconciliations. Overall, NIHR has led a steady continuous improvement in finance policy and guidance, worked to increase researchers understanding of funding rules and expectations which has in turn improved the quality of financial reporting from award-holders since the launch of the GHR Groups programme.

Call 3 Groups – Phase 1

The eight Call 3 GHR Groups funded in Phase 1 currently report underspend between 11% and 65% against Year 1 budgets (43% total underspend across the awards). This is largely related to delays in start-up, particularly in agreeing and signing collaboration agreements with all partners. It is expected that this underspend will be resolved throughout the lifetime of the awards, and NIHR will consider no-cost extensions on a case-by-case basis. However, some award-holders have stressed the negative impact of contracting and collaboration agreement delays (which can be a matter of months) on individuals at LMIC

institutions that are unable to absorb upfront spending. Other award-holders from Call 3 Phase 1 have also mentioned that some LMIC partners struggle with claiming funds quarterly in arrears. NIHR is aware of these issues and is committed to working flexibly with award-holders so that payments can be made and LMIC partners can receive funds promptly.

Other financial challenges for Call 3 GHR Groups include shocks in global and national economies, with fuel shortages and rising prices. NIHR recognises the challenges posed by the global economic situation for individuals and for activities funded under the GHR Groups programme and staff are engaging research teams to advise on the planned mechanisms to help mitigate their impact. NIHR finance teams will continue to monitor costs to ensure value for money, as well as fairness and equity to all NIHR-funded awards and their staff.

5.2 Transparency – this question applies to funding schemes which include transparency obligations within their contracts.

- Delivery partner to provide the percentage of awards that are meeting International Aid Transparency Initiative (IATI) obligations (please refer to https://iatistandard.org/en/iati-standard/).
- If not 100%, please outline the reasons why.

The current NIHR ODA Research Contract requires all award-holders to register with IATI and publish a dataset within 6 months of activity. This is checked in the 6-month report, and then monitored periodically via the IATI database. This requirement was added when the Call 1 and Call 2 GHR Groups were already into Year 3, so NIHR issued the amendment was through contract variations (alongside costed or no-cost extensions).

At time of reporting, all (100%) GHR Groups, currently active or completed, are registered with IATI in compliance with this requirement.

Beyond registration, since this is a relatively new requirement, appropriate processes are not always in place in all contracted institutions to publish IATI data. In recognition of this, NIHR continue to work with teams to support institutional adoption of the reporting requirements within the lifetime of the awards. NETSCC direct award holders to IATI reporting guidance and report to DHSC quarterly on all cohort award data.

7. Learning from Monitoring and Evaluation

7.1 Learning

The learning described in this section covers the period of June 2020 to October 2022 for Call 1 and Call 2 Groups, and the first year of activity of eight Call 3 GHR Groups, which started their contracts between July and October 2021. Some learning activities occurred after this reporting period and during the preparation of this report (up to June 2023) – this is clearly indicated.

Learning during the COVID-19 pandemic

Learning from Call 1 and Call 2 GHR Groups in the reporting period was dominated by the COVID-19 pandemic and its effect on research. NIHR has worked flexibly with award-holders to ensure the viability of the research during those challenging times. During the pandemic, all monitoring was conducted remotely, and efforts were focussed on responding to the rapidly evolving situation, including changes to work programme to re-orient activities and reprofile budgets. NIHR developed a bespoke form for award-holders who wished to request rapid changes to carry out COVID-19 related work such as genomic sequencing (GeMVi) or evidence reviews (several GHR Groups). These were assessed as quickly as possible given the challenging circumstances.

GHR Groups were generally positive about NIHR's support during the pandemic. In particular, the following two quotes from End of Award reports highlight the excellent level of support provided by NIHR staff:

"We thank the NIHR for excellent programme support. It has been a hugely challenging time with the pandemic [severely] affecting research globally. Nevertheless, we achieved all our expected outputs and conducted new research not in the original proposal." [GHR Group on PReterm bIrth prevention and manageMEnt (PRIME)]

"We found NIHR staff extremely supportive, helpful, and generous with their time and advice. No problem was too small, and their responses were all prompt and positive. We could not

have asked for better NIHR team […]. We would like to formally acknowledge their help and support and we thank them sincerely for it." [WIC]

Despite the best efforts of award-holders, NIHR and DHSC, the pandemic did affect the outcomes from the Call 1 and Call 2 GHR Groups. Some activities were delayed, scaled back, or were unable to be delivered as planned. As a result, some award-holders required additional time to complete, and some were unable to produce all planned outputs before the end of the project. In line with financial policies, NIHR supports dissemination activities up to two years after the end of the GHR award contracts. This allows costs for publication and other dissemination activities to continue (albeit not salaries of UK staff). For LMIC staff involved, there is now added flexibility to support their salary costs when associated with agreed dissemination activities delivered in the two years following the end of award.

Despite those challenges, Call 1 and Call 2 GHR Groups have been overall extremely successful in contributing to the aims of the GHR Groups programme. Through equitable partnerships, award-holders have produced significant outputs and outcomes as exemplified in quotes and highlights throughout this report. NIHR also continues to engage Call 1 and Call 2 GHR Groups in communication campaigns, and in the development of the NIHR Global Health Research Journal and offers opportunities to publish articles and an overarching synopsis of the research in full open access. The NIHR GHR Journal will launch in 2023, with publications from seven Call 1 and Call 2 Groups in the pipeline.

Learning activities across the last reporting period

In May 2022, NIHR ran a series of two start up webinars to support award-holders – including Call 3 GHR Groups – in managing their NIHR contracts to increase understanding of reporting and other contractual requirements during the lifetime of the award. NIHR engaged with award-holders to highlight NIHR branding guidance for GHR, as well as the range of opportunities for them to work with NIHR communications in promoting emerging impact and timely news stories via NIHR communication channels and campaigns. Knowledge continues to be shared with wider portfolio of GHR programme award holders through the SLACK (messaging) platform, a regular NIHR GHR newsletter, news items on funded GHR Groups and emerging impact stories including blogs on GHR related themes on the NIHR website.

In direct response to learning and feedback from monitoring across the wider cohort of NIHR GHR portfolio of awards, NIHR has also been developing activities related to CEI. Key outcomes include a CEI podcast series, the development of an online CEI learning and development course, the development of a community of practice, and initiation of a resource hub across award CEI leads. NIHR is also working with other global funders to develop a coherent suite of resources and learning opportunities to support development and sharing of best practice in CEI.

Once travel restrictions eased, NIHR staff had further opportunities to engage with award-holders. In November 2022, delegates from the NIHR team also visited a site of the GHR Group on Oral Health during a combined DHSC/NIHR visit to Bogota. This award was funded in Phase 2 of the GHR Groups Call 3, so will be included in next year's reporting.

NIHR staff also attended other in-person and virtual events organised by award-holders and/or relevant GHR networks (during and after the reporting period), not including routine attendance at virtual Independent Advisory Group (IAG) meetings:

- In-person IAG meeting for the Call 2 Unit on preventing stillbirths and neonatal death, a follow-on award from the GHR Group on preventing stillbirths and neonatal death in SSA (July 2022)
- Event organised by the Royal College of Surgeons of England which included presentations by NIHR-funded Groups (27 October 2022)
- GeMVi Genomics, Bioinformatics and Modelling Dissemination Symposium - virtual attendance and NIHR presentation and Q&A (7 Sept 2022)

After the end of the reporting period

- VAnguard GHR Group Launch – virtual attendance with NIHR presentation and Q&A (28 November 2022)
- IHCOR GHR Group Launch - virtual NIHR presentation and Q&A (11 November 2022)
- GHR Group on Adolescent Health and Wellbeing Launch/Kick off meeting - virtual NIHR presentation and Q&A (18 November 2022)
- IHCOR-Africa-Kilifi - Dialogues training day NIHR presentation on cardiovascular disease portfolio and funding opportunities (10 July 2023)

After the end of the reporting period, NIHR also supported two DHSC visits to meet research teams, including GHR Groups, based in India and Bangladesh. These visits included networking and round table events with award-holders and Early Career Researchers. The visit to Bangladesh took place in December 2022, and the visit to India in February 2023. Attending events and meetings provides a welcome opportunity for NIHR to receive live updates on research progress. They also offer a space to discuss challenges and lessons learnt with a wider range of partners and/or collaborators compared to routine monitoring.

NIHR is also planning to deliver a series of further shared learning and networking events for all award-holders across GHR portfolio (Units and Groups, RIGHT, Global HPSR and Centres). The cross-NIHR CEI working group has successfully delivered the CEI Leads Learning event, 17 May 2023. NIHR is also planning the first Thematic Shared Learning and networking Events, which will take place on 1 November 2023.

These initiatives respond to a demand from award-holders for more cross-award networking and collaboration, including more facilitation from NIHR. They also present an opportunity for NIHR to receive feedback on programme management, as well as develop cross-portfolio learning.

In December 2021, DHSC commissioned Ecorys to undertake an evaluation of the first phase of the entire NIHR GHR portfolio (2016/17 to 2020/21). The inception report is published on NIHR Open Research. The evaluation's objectives are to assess the suitability of the design and implementation of the portfolio for achieving its intended results, and to identify key learning to inform development and delivery of the portfolio's second phase (2021/22 onwards). In addition, the evaluation aims to provide accountability for the GHR portfolio performance to date, determining the Value for Money (VFM) of investments, and assessing whether the portfolio is on track to achieve desired outcomes and long-term impact. Through this process, NIHR has supported interviews and shared award level information (including applications, progress reports and previous annual reviews) with Ecorys to inform the evaluation. To inform contextual learning, Ecorys has interviewed researchers and in-country beneficiaries from the following four Groups: GHR Group on Neurotrauma, CleanAir (Africa), GHR Group on Stillbirth Prevention and Management in Africa, and GHR Group on the Prevention and management of NCDs and HIV infection in Sub-Saharan Africa. The final report will publish by March 2024.

Changes to commissioning process from Groups Call 3

During the reporting period, NIHR has successfully delivered a third GHR Groups call, funding eight awards in Phase 1 (contracts started between June and October 2021) and a further 22 awards in Phase 2 (contracts started between August and October 2022). There have been several changes since GHR Groups Call 3, including:

- Improved guidance, with strengthened equity, mentoring to support evolution of leadership models and research capacity strengthening at all levels in awards.
- A maximum limit of four applications from a single institution to be funded per call
- Strengthened eligibility criteria
- Open committee member recruitment process
- More detailed Committee member induction

The phased approach with two call deadlines for Call 3 GHR Groups was necessary due to budgetary constraints and undertaken to mitigate the impact of COVID-19 on award holders applying. DHSC approved eight top-scoring awards for funding from the first phase whilst decisions on remaining fundable awards were postponed until the outcomes of the Phase 2 funding committee, when final decisions were made. Whilst phased calls will no longer be required, feedback from applicants and committee members alike showed a preference for more frequent calls with fewer applications to review at the final stage. Going forward, all GHR calls will run as two-stage calls with one deadline for Stage 1 and another for proposals that are shortlisted for Stage 2. For the GHR Groups programme, this has started with the fourth Groups call which launched 31 August 2022 (Stage 2 opened February 2023 and contracts are expected to start in Summer 2024).

Sustainability

Many Call 1 and Call 2 Groups secured further funding from NIHR. Specifically, two Global HPSR, two RIGHT, five GHR Groups, three GHR Units and one GHR Centre related to Call 1 or Call 2 Groups have been identified (13 related awards related to 11 Groups). Other GHR Groups secured funding from other funders such as FCDO, Wellcome Trust, European Union (EU) research programmes, UKRI, Newton Fund, and National Institutes of Health (NIH). This shows that the GHR Groups programme and the NIHR GHR programmes more

widely are supporting the sustainability of research for the benefit of LMICs in areas of high need, including:

- Maternal and new-born health
- Neglected tropical diseases (NTDs)
- Non-communicable diseases (NCDs) and healthy lifestyle
- Trauma and injuries
- Mental health, including severe mental illness and psychosis
- Health inequalities

- Key lessons

The key lessons recorded in Table 9 are based on an internal assessment by NIHR of the delivery of the GHR Groups programme between June 2021 and October 2022. They include lessons about internal and external communication, award monitoring, and commissioning of new awards. These lessons have been raised with DHSC as appropriate and actioned where possible. Some examples of follow-up actions are also included in the table.

Table 9: Key lessons for the Global Health Research Groups programme (June 2020-October 2022)

Theme(s)	Situation	Lesson learnt	Status
Impact of COVID-19	**Worked well:** Several awards were able to make significant contributions to the pandemic response in LMICs. NIHR supported awards to pivot resources and change work packages to better understand the virus and how governments could protect their populations. Good relationships with research partners supported the flexibility needed during the pandemic, for example when moving activities online.	GHR Groups need flexibility to respond to changing global environments as well as local challenges. NIHR continuously reviews monitoring processes to ensure they support award-holders to deliver on their objectives while allowing room for changes.	Actioned
	Could be improved: Some award-holders considered the approval process for changes to work programmes and no-cost extensions to be too complex and lengthy. Financial management and forecasting during the Call 1 Units no-cost extensions was complex, due to the reduction in staff capacity for research and administration. The lack of availability of further funds made this even more challenging.	NIHR acknowledges that there were high levels of uncertainty during the pandemic and guidance was frequently changing. Since then, NIHR has developed its process for awarding no-cost extensions, including clearer guidance for Global Health Research award-holders. NIHR and DHSC are also exploring future mechanisms to consider and support decisions on costed extensions, where justified and providing they represent value for money.	Actioned
Finance	**Worked well:** NIHR is seeing increased accuracy and understanding of funding rules for award-holders using updated financial reporting processes (Call 3 GHR Groups).	The new process for quarterly financial reporting with the inclusion of transaction listings is working as intended.	Actioned
	Could be improved: Payments in arrears, as per DHSC and NIHR policy, continue to be a challenge for LMIC institutions as previously reported. It causes affordability issues in LMICs, and the risk of advance payments is largely shouldered by UK Contractors.	In practice, advance payments from UK institutions are often the most viable option for the operation of research in low-resource contexts. NIHR offers flexibility as to payment schedules to reflect this. The cross-NIHR finance working group continues to review ways to support award-holders, particularly in LMICs.	To keep under review

	More support for financial training for LMIC partners would have been welcomed.	NIHR has developed its training and webinar offer and increased its capacity to provide guidance to award-holders for financial reporting. This continues to be reviewed to ensure LMIC partners in particular receive adequate support and that events such as the shared learning event series can offer NIHR operational support in areas of ongoing need.	To keep under review
	Some award-holders felt there was a high burden of financial reporting and challenging deadlines for collating financial reports, especially at the end of the award.	Financial reporting has been reviewed and updated, as reported above. NIHR encourages award-holders to budget appropriately for the necessary financial and administrative support particularly in LMICs and to work with partners to support understanding of requirements and establish effective mechanisms of financial reporting from the start.	Actioned
	One Group had issues with financial support for visa and relocation process for LMIC national from the Contractor and NIHR.	NIHR recognises that this is an issue for some LMIC students and researchers. Visa costs are eligible, and NIHR can support reasonable relocation costs if the benefit to the individual and the research is demonstrated.	Actioned
	Financial rules that do not allow *per diems* were difficult in some settings where this is the cultural norm.	NIHR does not allow award-holders to claim *per diems* due to the need to support all expenditure with receipts. Award-holders are encouraged to communicate funding rules early with all partners to avoid issues.	No action required
Monitoring	**Worked well**: Costed extensions helped GHR Groups deliver on their objectives, expand their networks and complete more ambitious research plans. Several award-holders gave positive feedback on NIHR programme support including individual staff.	Awards such as GHR Groups are likely to identify opportunities for additional work and/or sub-studies once researchers are established in the local context. NIHR is looking to enable those opportunities and provide further funding where it could deliver key benefits.	To keep under review

	Could be improved: Several award-holders across all cohorts mentioned delays and issues with contracts (including variations) and collaboration agreements. In addition, most award-holders experienced general issues with complexity of the research environment. Some commented that three-year contracts are ambitious even without the added issues caused by the pandemic. One award-holder suggested a workplan time of three years but a contract of four years to allow for this. Another suggested seed-funding to start fieldwork and training to help meet study timelines. One award-holder commented about the NIHR Management of Information System (MIS) that it would be useful if the information within MIS could be used to inform the content of reports from the programme team's perspective. Female authorship on research publications has increased throughout the life of the Groups programme but could still be improved especially for women from LMICs. The proportion of peer-reviewed publications in Open Access for Call 3 is low, this needs to be monitored and rectified if required.	NIHR regularly reviews its processes for contracting, reviewing collaboration agreements, and issuing variations. There have been significant improvements and efficiency gains since Call 1 and Call 2 were contracted (notably electronic contracting). The processes for no-cost extensions are also better established. NIHR and DHSC are also discussing opportunities to allow for more flexibility around contract start dates, which would prevent some of the knock-on effects from early delays. NIHR is in the process of transitioning to a new research management system, which will be designed to better support applicants and award-holders. Feedback from users will be incorporated as much as possible. NIHR will continue to monitor gender and LMIC balance of authorship, as well as adherence to the NIHR Open Access policy, and will assess whether guidance or feedback to award-holders need to be strengthened.	To keep under review To keep under review To action in next reporting period
Programme support for capacity-strengthening	**Worked well**: NIHR received positive feedback on the NIHR GHR Training Forum organised by the NIHR Academy. There have been positive outcomes from FAF for GHR Groups who secured the awards, which provided top-up funding for the financial capacity-strengthening of LMIC partners.	Despite positive outcomes from FAF, NIHR and DHSC have assessed that much of the support offered through this mechanism could be integrated into research proposals to achieve better value for money. They have improved financial guidance to that effect.	Actioned
	Could be improved: Some Call 3 GHR Groups would welcome more advance warning of planned training or courses offered by NIHR. Several GHR Groups also suggested that NIHR Academy support be extended	Better communication on the NIHR Academy offer and other NIHR capacity-strengthening activities is required. There is also an identified need for more support for non-NIHR Academy members. NIHR is actively working on	To keep under review

	beyond NIHR Academy members to include early career researchers and other Group research or project management staff. They would also welcome more training/support on reporting requirements and compliance, as well as more support for networking and cross-award learning.	this through the development of NIHR Learn platform, as well as wider engagement with award-holders.	
Due diligence	**Worked well:** Most award-holders were able to complete the required due diligence checks in a timely manner and suggest areas of improvement without noting any major issues.	Due diligence processes were overall effective and did not highlight major obstacles for research in LMICs.	
	Could be improved: Despite the above, some award-holders noted that due diligence requirements place a high burden on UK and LMIC institutions. They would welcome better coordination amongst funders to reduce duplication of effort.	NIHR works with other global funders to better share information and ensure processes are both robust and fair.	To be actioned in the next reporting period
Commissioning	**Worked well:** NIHR has continued to deliver GHR Groups calls and develop a flagship programme of UK-LMIC partnerships and global research capacity strengthening. GHR Groups calls continue to be extremely popular and competitive.	NIHR must continue to learn from the success of GHR Groups and plan for the longer-term. NIHR continues to develop its commissioning process, as well as Monitoring, Evaluation and Learning to ensure it is continuing to improve.	To keep under review
	Could be improved: Some award-holders have expressed concerns about the sustainability of their partnerships given they were unable to secure further funding from GHR programmes.	NIHR is clear that GHR Groups calls are open competitions with no guarantee of further funding. NIHR's independent Funding Committees follow a rigorous assessment process, and all final funding decisions are final. NIHR actively ensures all applicants receive high quality feedback on areas for improvement and acknowledge that not all funding awards are able to be supported within the available budget. Any process concerns raised by applicants are investigated and responded to in a prompt manner. NIHR also incorporate feedback and learning from each stage to drive continuous process improvement.	To keep under review

		Several awards are successful in obtaining a range of funding from other sources to help support sustainability of partnerships and research.	

7.2 Key milestones/deliverables for the awards for the coming year

Key milestones/deliverables for coming year	**Target date**
Launch fifth GHR Groups call and establish regular pipeline of calls	August 2023
NIHR Series of Shared learning events open to all award-holders to support learning, collaboration, and awareness of NIHR operational and contractual requirements and award holder support (including Call 3 GHR Groups)	First event to be delivered October 2023
Launch of NIHR GHR Journal with contributions from Call 1 and Call 2 GHR Groups	Autumn 2023
Stage 1 Call 5 GHR Groups outcomes	March 2024
Publication of Independent Evaluation of NIHR GHR Programmes Phase 1 by Ecorys 2023-24, including Call 1 and Call 2 GHR Groups	First quarter 2024
Complete further assurance visits in LMICs, including Call 3 GHR Groups	First quarter 2024
Finalise contracting and award activation for Call 4 GHR Groups	Second quarter 2024
Stage 2 Call 5 Groups GHR outcomes	November 2024

Annex A: Full list of GHR Group awards

Table A1: List of Call 1 GHR Groups

NIHR ID	Title	Short title	DAC-list countries
16/137/16	NIHR Global Health Research Group on Improving Stroke Care, University of Central Lancashire		India
16/137/34	NIHR Global Health Research Group on Diet and Activity, MRC Epidemiology Unit, University of Cambridge	GDAR	Jamaica, Cameroon, South Africa
16/137/45	NIHR Global Health Research Group on POsT Conflict Trauma; PrOTeCT, Imperial College London	PrOTeCT	Lebanon, Sri Lanka, Occupied Palestinian Territories
16/137/44	NIHR Global Health Research Group on Global Surgical Technologies, University of Leeds	GHRG-ST	India, Sierra Leone
16/137/49	NIHR Global Health Research Group on Nepal Injury Research, University of the West of England, Bristol		Nepal
16/137/53	NIHR Global Health Research Group on Stillbirth Prevention and Management in Sub-Saharan Africa, Liverpool School of Tropical Medicine		Kenya, Malawi, Zambia, Uganda, Zimbabwe, Tanzania
16/137/62	NIHR Global Health Group on Dementia Prevention and Enhanced Care (DePEC), Newcastle University	DePEC	Malaysia, India
16/137/85	NIHR Global Health Research Group on Early Childhood Development for Peacebuilding (LINKS), Lancaster University and Queen's University Belfast	LINKS	Kyrgyzstan, Vietnam, Egypt
16/137/87	NIHR Global Health Research Group on prevention and management of non-communicable diseases and HIV-infection in Africa, Liverpool School of Tropical Medicine		Tanzania, Uganda
16/137/90	NIHR Global Health Research Group on Global Health Econometrics and Economics (GHE2), University of York	GHE2	Indonesia, South Africa, Brazil
16/137/95	NIHR Global Health Research Group on Global COPD in Primary Care, University of Birmingham		Brazil, China, Macedonia, Georgia

16/137/97	NIHR Global Health Research Group on developing psycho-social interventions for mental health care, Queen Mary University of London	GLOBE	Colombia, Bosnia-Herzegovina, Uganda, Peru, Argentina, Pakistan
16/137/99	NIHR Global Health Research Group on Social Policy and Health Inequalities led by the University of Glasgow		Brazil
16/137/101	NIHR Global Health Research Group on warfarin anticoagulation in patients with cardiovascular disease in Sub-Saharan Africa, University of Liverpool		South Africa
16/137/105	NIHR Global Health Research Group on Neurotrauma, University of Cambridge		Indonesia, Pakistan, Malaysia, South Africa, Colombia, India, Philippines
16/137/107	NIHR Global Health Research Group on Psychosis Outcomes: the Warwick--India-Canada {WIC} Network, The University of Warwick	WIC Network	India
16/137/109	NIHR Global Health Research Group on Evidence to Policy pathway to Immunisation in China (NIHR EPIC), London School of Hygiene & Tropical Medicine	NIHR EPIC	China
16/137/110	NIHR Global Health Research Group on Burn Trauma, Swansea University	Global Burns	Ghana, India, Syrian Arab Republic, Occupied Palestinian Territories, Mongolia
16/137/114	NIHR Global Health Research Group on African Snakebite Research, Liverpool School of Tropical Medicine		Nigeria, Cameroon, Kenya
16/137/122	NIHR Global Health Research Group on Road Safety, University of Southampton		China, Brazil, Vietnam, Ecuador

Table A2: List of Call 2 GHR Groups

17/63/08	NIHR global health research group on preterm birth and stillbirth at the University of Liverpool (the DIPLOMATIC collaboration) at the University of Liverpool	DIPLOMATIC	Malawi, Zambia
17/63/20	NIHR Global Health Research Group on Respiratory Rehabilitation (Global RECHARGE) at The University of Leicester	Global RECHARGE	Kyrgyzstan, India, Sri Lanka
17/63/26	NIHR Global Health Research Group on PReterm bIrth prevention and manageMEnt (PRIME) at The University of Sheffield.	PRIME	India, Nigeria, South Africa
17/63/35	NIHR Global Health Research Group on estimating the prevalence, quality of life, economic and societal impact of arthritis in Tanzania: a mixed methods study at University of Glasgow		Tanzania
17/63/38	NIHR Global Health Research Group on improving asthma outcomes in African children at Queen Mary University of London		South Africa, Ghana, Nigeria
17/63/42	NIHR Global Health Research Group on Sepsis at the Liverpool School of Tropical Medicine		Ghana, Cameroon, Gabon, Nigeria
17/63/47	NIHR Global Health Research Group on a package of care for the mental health of survivors of violence in South Asia at University College London Institute of Child Health		India, Sri Lanka
17/63/62	NIHR Global Health Research Group on Asthma Attacks Causes and Prevention Study in Urban Latin America at St George's, University of London		Brazil, Ecuador
17/63/66	NIHR Global Health Research Group on stroke at King's College, London		Sierra Leone
17/63/76	NIHR Global Health Research Group on Addressing Smokeless Tobacco and building Research capacity in south Asia (ASTRA) at the University of York	ASTRA	Pakistan, India
17/63/82	NIHR Global Health Research Group on the Application of Genomics and Modelling to the Control of Virus Pathogens (GeMVi) in East Africa at the University of Warwick.	GeMVi	Kenya, Tanzania, Uganda
17/63/91	NIHR Global Health Research Group on genomic surveillance of malaria in West Africa at the Wellcome Trust Sanger Institute.		Ghana
17/63/110	NIHR Global Health Research Group on Improving the Management of Acute Brain Infections at University of Liverpool		Brazil, India
17/63/121	NIHR Global Health Research Group on Atrial Fibrillation management at the University of Birmingham		China, Brazil, Sri Lanka
17/63/125	NIHR Global Health Research Group on health system responses to violence against women at University of Bristol		Brazil, Sri Lanka, Occupied Palestinian Territories
17/63/130	NIHR Global Health Research Group: Improving Outcomes in Mental and Physical Multimorbidity and Developing Research Capacity (IMPACT) in South Asia at the University of York	IMPACT	Pakistan, India
17/63/131	NIHR Global Health Research Group on improving outcomes in sub-Saharan African diabetes through better diagnosis and treatment at the University of Exeter		Cameroon

17/63/145	NIHR Global Health Research Group on From surviving to thriving: Assessing and responding to occupational and public health risks in informal settlements and for informal workers and the effects of climate change on these risks: Building learning from India and Zimbabwe at the IIED		India, Zimbabwe
17/63/154	The NIHR Global Health Research Group on leveraging improved nutrition preconception, during pregnancy and postpartum in SubSaharan Africa through novel intervention models, Southampton 1000 DaysPlus Global Nutrition, at the University of Southampton		Ghana, South Africa
17/63/155	NIHR Global Health Research Group on Clean Energy Access for the prevention of Non-communicable disease in Africa through clean Air: CLEAN-AIR(Africa) at the University of Liverpool	CLEAN-AIR(Africa)	Kenya, Ghana, Cameroon

Table A3: List of Call 3 GHR Groups (Phase 1 contracted between July and October 2021)

NIHR132995	NIHR Global Health Research Group on collaborative care for cardiometabolic disease in Africa		Ghana, Kenya, Mozambique
NIHR133144	NIHR Global Health Research Group on Controlling Vector Borne Diseases in Emerging Agricultural Systems in Malawi		Malawi
NIHR133205	NIHR Global Health Research Group on Diet and Activity -A syndemic approach to the prevention of diet- and physical activity-related NCDs		Kenya, South Africa, Cameroon, Jamaica, Brazil, Nigeria
NIHR133208	NIHR Global Health Research Group on developing strategies for hepatitis C in Ethiopia (DESTINE)	DESTINE	Ethiopia
NIHR133231	NIHR Global Research Group on Advancing Early Diagnosis of Cancer in Southern Africa - AWACAN-ED	AWACAN-ED	South Africa
NIHR133232	NIHR Global Health Group for implementation of solutions to reduce maternal/neonatal mortality, and build research capacity in Sierra Leone.		Sierra Leone
NIHR133333	NIHR Global Health Research Group on Building Partnerships for Resilience: strengthening responses to health shocks from the grassroots		Ethiopia, Madagascar, Uganda, Sierra Leone
NIHR133384	NIHR Global Health Research Group on Interventions for Youth with Depression and Anxiety Disorders in African Countries		Ghana, Malawi, Zimbabwe

Annex B: Clearance checklist

	Name	Date
Annual Report sections completed by (within delivery partner organisation)		
Annual report read and annual review sections completed by (DHSC) with input from transparency sub-team		
Annual review shared and signed off by (within delivery partner organisation)		
Annual review signed off by (DHSC)		
SRO sign off for publication		

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