



Department
of Health &
Social Care

Global Health Policy and Systems Research Development Award programme completion review

NIHR Global Health Research Portfolio

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Acronym and Abbreviation Definitions

AFIDEP	African Institute for Development Policy
CA	Collaboration agreement
CEI	Community engagement and involvement
CERRHUD	Centre de Recherche en Reproduction Humaine et en Démographie
COVID-19	Coronavirus disease
DfID	Department for International Development, UK (now FCDO)
DHSC	Department of Health and Social Care, UK
FAF	Financial assurance fund
FCDO	Foreign, Commonwealth and Development Office
FSTOX	Final statement of expenditure
FTE	Full time equivalent
GBP	Great British Pounds
GFGP	Good Financial Grant Practice
GHR	Global Health Research
Global HPSR	Global Health Policy and Systems Research
HIC	High income country
HIV	Human immunodeficiency virus
HPSR	Health Policy and Systems Research
HRCS	Health Research Classification System
HSG	Health Systems Global
HSRUK	Health Services Research UK
IATI	International Aid Transparency Initiative
IP	Intellectual Property
KEMRI	Kenya Medical Research Institute
LMIC	Low- and middle-income country
LSHTM	London School of Hygiene and Tropical Medicine, UK
MEL	Monitoring, evaluation and learning
MIS	Management information system
MoH	Ministry of Health
NCE	No-cost extension
NETSCC	NIHR Evaluation, Trials and Studies Coordinating Centre
NGO	Non-governmental organisation
NIHR	National Institute for Health Research, UK
ODA	Official Development Assistance
PI	Principle investigator
QMU	Queen Margaret University
QMUL	Queen Mary University London
QSTOX	Quarterly statement of expenditure
QUB	Queen's University Belfast
RAG	Red/amber/green rating
RL	Researcher-Led
SLACK	Searchable Log of All Communication and Knowledge

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STI	Sexually Transmitted Infections
TB	Tuberculosis
UHC	Universal health coverage
UK	United Kingdom
UWE	University of the West of England
WHO	World Health Organisation
WP	Work package

1. DHSC summary and overview

1.1 Brief description of funding scheme

The Global Health Policy and Systems Research (Global HPSR) programme funds high quality applied health research which aims to improve health systems and health services in ODA-eligible countries on the DAC list (.PDF). This will be achieved through development of equitable partnerships between LMIC and UK research institutions, engagement of stakeholders to identify and address priorities for research in health policy and health systems, and by supporting capacity strengthening and knowledge sharing. The Global HPSR programme runs three types of call for research:

Development Awards:	Research and partnership planning awards
Commissioned Awards:	Designed to address pre-identified priority areas
Researcher-led awards:	Funds any area of applied health policy and systems research relevant to the programme

The aim of the Development Awards scheme is to support underpinning work for the development of high-quality applications able to compete for research funding in global health policy and systems research. For this first call, awards of up to £100,000 for a duration of up to 9 months were available for joint applications from institutions in LMICs and UK Higher Education Institutions (HEIs) or research institutions to develop equitable partnerships, identify and engage relevant stakeholders (policy makers and LMIC communities), undertake a needs assessment, and identify local LMIC-led priorities for research. The scheme aims are to build capacity and support future high-quality applications for further research funding, to build equitable partnerships and consortia, and to increase research capacity in LMICs to undertake this type of research.

1.2 Summary of funding scheme performance over its lifetime (general progress on activities, early outputs, outcomes, impacts across all awards)

This report demonstrates that the Development Award funding scheme has largely performed well against its published aims, despite being the first time NIHR have run this kind of call and most activities taking place at the height of the pandemic.

A total of 103 applications were received to the call demonstrating the scheme addressed an unmet need for funds to support partnership development. DHSC was able to respond flexibly to the high demand by funding more awards than originally planned, providing funding to develop 17 new partnerships and consortia that would address the scheme's aims.

Building on the partnerships developed through this scheme's funding, 12 awards have gone on to apply for further funding from NIHR GHR programmes, and several have also secured further funds through other funders. Creating and strengthening partnerships that could go on to apply for more substantive awards was a key target outcome for this scheme. Additionally, the scheme's key aims were met through different approaches to mapping local contexts (which were generally delivered early on in awards), the outputs of which went on to form the evidence base for collaborative exercises to identify a range of new research priorities (see sections 4.3 and 5.3). Further, the report highlights that most awards identified individual training needs and institutional capacity-strengthening opportunities, as set out in the call funding criteria.

In terms of outputs and dissemination, plans for the awards were disrupted by the COVID-19 pandemic, but the report highlights that award holders were able to flex by moving activities online, and there were some reported examples of publication in peer reviewed journals, a policy brief, and a very accessible [video on YouTube](#) explaining medicine pricing policies in Ghana funded through this scheme. Achievement against the final pillar of the call - development of strategies for research uptake and dissemination – has nevertheless been described in section 2.8 which list a range of ways in which outcomes will continue to be disseminated beyond the end of awards to inform future audiences.

Overall, this funding scheme can be considered a success with several lessons learned which are summarised in the following sections.

1.3 Performance of delivery partners

NETSCC have been successful and adaptable in delivering the Development Awards call, particularly in the context of the disruption caused by the pandemic.

The report highlights several ways NETSCC flexed systems and processes to manage this new kind of award, for example through developing a proportionate monitoring approach, as well as working with DHSC to develop the template for this Programme Completion Review as it is used for the first time. NETSCC also adeptly reacted to the high call volume and were able to accommodate the higher than anticipated number of contracts that were awarded and required subsequent monitoring.

Delays to some activities occurred due to application of Intellectual Property (IP) clauses that were not proportionate for this type of award. Award-holders have also fed back on this issue. NETSCC have drawn some learning that will be applied for future calls.

DHSC and NETSCC worked closely throughout the duration of this programme and the relationship between DHSC and NETSCC continues to work well.

1.4 What are the key lessons identified for wider DHSC/NIHR global health research?

Given the significant level of interest from applicants, it is clear that the Development Awards scheme addressed an unmet need in the research community. DHSC will use this learning to inform future programming.

Should any similar schemes be commissioned in future, there are several learning points for DHSC to consider. For example, it is noted that whilst award holders reported the budget envelope was sufficient at £100,000, nine months duration was too short for successful delivery. DHSC recognises the recommendations made in Sections 8.4 and 8.5, particularly on award duration, proportionate reporting, as well as post-award follow-up.

The report also highlights that Intellectual Property (IP) management capacity during contracting was an issue in some LMICs particularly as these were developmental awards. DHSC is pleased to see that lessons have been learnt from this, and hope to see how contractual requirements will be adapted to be proportionate to scheme's aims and scope. A more proportionate approach to contracting and collaboration agreements would mitigate those issues, defining basic ways of working and principles for an equitable partnership at project start. This would prevent delays and allow for refining collaboration terms as the partnership develops.

Projects adapted well to the disruption caused by the pandemic, for example online engagement was much more successful than anticipated in some cases and allowed teams to reach wider groups of stakeholders. Future funded projects should be encouraged to consider the use of virtual tools and their unique benefits whenever they might be appropriate as longer-term learning from the pandemic. This may bring particular benefits to shorter projects such as these which were more vulnerable to shocks such as the pandemic. There were also some good examples identified for achieving value for money. These should be considered alongside those reported through other NIHR summary reports with a view to sharing learning and developing guidance for future award holders.

1.5 DHSC to summarise key recommendations/learning for future portfolio development, with ownership and timelines for action

Recommendation	Owner	Timeline
Use recommendations in 8.4 to inform any future Development Award style calls	DHSC	For future calls (timings TBC)
Explore ways to further engage award holders to inform and scope future calls	DHSC	July 2022
Continue to explore use of use of Researchfish to collect data on Development Awards' progress beyond the end of their contract	NETSCC and DHSC	Complete. Agreed Researchfish is not the appropriate tool for these small awards. Previous award holders will continue to be engaged directly by NETSCC and findings reported to DHSC.
Review examples of how value for money was achieved and develop learning.	DHSC	To inform next funding call.
Review requirements and guidance for IP to ensure approach is proportionate for each call.	NETSCC and NIHR IP Unit	Ongoing

2. Summary of aims and activities

2.1 Background

In 2018, recognising the gaps in health policy and systems research relevant to LMIC contexts, the NIHR established a Global Health Policy and Systems (Global HPSR) Community of Practice in partnership with Health Systems Global and Health Services Research UK (HSRUK). NIHR engaged the Community of Practice in a stakeholder engagement workshop and survey to develop a report with recommendations to address those needs. From this, NIHR developed a new programme of Global Health Policy and Systems Research (HPSR) relevant to low- and middle-income country (LMIC) settings, the NIHR Global HPSR programme, comprising three complementary NIHR Global HPSR calls for research proposals.

Specifically, this consultation exercise highlighted the need for funding to support partnership creation and the capacity to respond to research questions important to policy makers and communities in-country. This led directly to creation of the Development Awards as part of the suite of NIHR Global HPSR activities.

Overall, the NIHR Global HPSR programme aims to support high-quality applied health research that is directly and primarily of benefit to people in LMICs through:

- equitable partnerships between LMIC and UK researchers;
- joint engagement of stakeholders to identify and address priorities for research; and
- development of plans for capacity strengthening and knowledge sharing.

Through supporting high quality, appropriate and applicable NIHR-funded global health policy and systems research, NIHR are investing in health systems for all towards universal health coverage (UHC) and 'leaving no one's health behind'. NIHR expects research outcomes from the programme awards to support UHC towards meeting Sustainable Development Goal (SDG) 3, as described in the [Global HPSR Theory of Change](#).

2.1 Brief outline of funding call aims

The [Global HPSR Development Awards](#) opportunity launched in 2019; this was the first call launched under the NIHR Global HPSR programme and comprised small competitive awards of £100,000 for up to 9 months duration. Specifically, these aimed to support underpinning work for the development of high-quality applications which could then openly compete for research funding in global health policy and systems research from NIHR or other global health funders.

The call provided funding to:

- a. Support partnership development between two Joint Lead Applicants, one in an ODA-eligible LMIC and one in a UK institution, to expand partnerships and develop consortia (of between 3 to 5 institutions)
- b. Review the local context, existing research literature and health systems
- c. Develop a needs analysis, to refine ODA-eligible research questions and priorities through engagement with policy makers, evidence users and local communities, as appropriate. This could include pilot data, feasibility studies and work-force planning
- d. Establish plans for developing institutional and individual capacity and capability (for example research career development programmes and training; exchanges with policy-making institutions/practice-based settings; and grant management, finance management and contracting)
- e. Develop a strategy for research uptake and dissemination.

The Global HPSR Development Awards supported applications that:

- Planned for developmental work to underpin the five pillars (a-e above)
- Demonstrated joint leadership between the LMIC and UK research partners and planned to engage with other relevant partners, including those in low resourced settings
- Planned for studies that demonstrate the potential to impact on wider elements of a low resourced health system
- Utilised applied health services research or health systems research of primary and direct benefit to people and patients in LMICs
- Contained a feasibility study, methods development, or pilot data collection (including assessing data quality)
- Included applied research teams and involved of a range of disciplines to support a health systems approach (driven by the research questions identified by LMICs), with relevant expertise, and plans for development of appropriate partnerships in LMICs

The Development Awards opportunity received a total of 103 applications. 78 of these applications (76%) were approved to be in remit for the call and were subsequently reviewed and scored against the call criteria by members of the funding committee. The Chair then approved a shortlist comprising the top 40 ranked proposals for international peer-review and discussion by the funding committee.

17 Development Awards were subsequently approved for funding by DHSC (21.8% success rate). These covered a diversity of topics and innovative approaches to HPSR. All shortlisted applicants received both funding committee and peer review feedback to support any areas for further improvement.

The funding committee assessed the shortlisted applications on their relevance and quality against the selection criteria (a-e above), compliance with ODA, remit and eligibility criteria and assessed the equity and strength of partnerships, the value for money and pathway towards follow-on research funding.

This report focuses on the end-to-end activities of the 17 funded Development Awards and their achievements between 1 March 2020 and 31 May 2021, with one award completing on 31 September 2021. A full list of funded awards can also be found on [NIHR Funding Awards](#).

2.2 Summary of funded awards.

This section provides further detail on partnerships, global distribution of awards, Health Research Classification System (HRCS) codes, and overall achievements of the Development Awards throughout the funding scheme.

Table 1 . Funded Development Award titles and partner countries

Title	DAC-list Partner Countries
Accelerating the development of Health Policy and Systems Research (GHPSR) capacity in Western Pacific Region (WPR) for health system strengthening	Malaysia, Philippines
Addressing Health System Fragmentation to Advance Universal Health Coverage (UHC) for Low Income Populations in Latin America	Brazil
Co-developing an Evidence-based Plan to Strengthen the Health Care System and Inform Policy to Reduce Cancer Burden in Mongolia: An Interdisciplinary Approach	Mongolia
Collaborative partnerships addressing the effects of urban violence on youth access to health services in South Africa and Brazil	Brazil, Kenya, South Africa
Equitable access to quality trauma systems in Low- and Middle- Income Countries. Assessing gaps and developing priorities	Ghana, Rwanda, South Africa
Essential diagnostics: developing methods, guidelines and capacity for effective national programmes	Kenya, South Africa
Identification of research priorities for a safe systems approach to road safety in Nepal	Nepal
Improving equitable access to essential medicines in Ghana through bridging the gaps in implementing medicines pricing policy	Ghana
Integrating HIV Pre-exposure Prophylaxis and diagnostic STI care: an individualised public health approach (iPreP-STI)	South Africa

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Title	DAC-list Partner Countries
Kenya-UK development award to support the design of a whole system approach to facilitate the functioning of the baby friendly community initiative within the Kenyan health system	Kenya
Living in the city: Building collaborations to strengthen health systems to respond to the needs of newly urbanised populations in Africa and Asia	Bangladesh, Ghana, Nepal
Perioperative health systems to support surgical treatment: Establishing a world leading global health research collaboration to deliver innovative solutions promoting the safety and quality of care for surgical patients	Colombia, South Africa, Sri Lanka, Thailand, Uganda
Post-tuberculosis lung damage amongst pulmonary tuberculosis survivors in East Africa: health system challenges and research priorities	Kenya
Re_Emerge: Research to accelerate progress on emergency preparedness and universal health coverage in four Ebola-affected countries	Sierra Leone
Strengthening health systems in South Africa to achieve universal health coverage for people with stroke through research, partnership, capability building and stakeholder engagement	South Africa
Supporting those most in need: A partnership approach to strengthen health policy and systems research capacity in China and beyond	China
The political economy of universal health coverage reforms: building capacity and engagement of francophone West Africa	Benin

Global geographic distribution of distinct Development Awards in LMICs

Figure 1. Heat Map showing geographical spread and numbers of DAs in LMICs

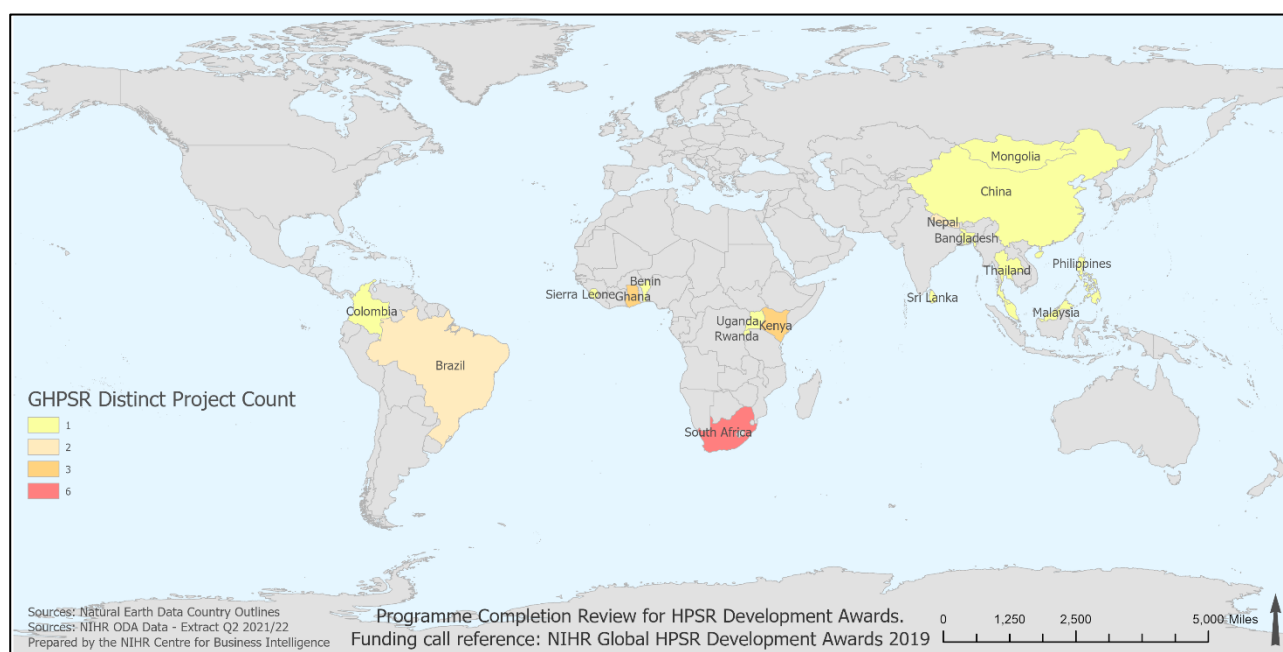


Figure 1 shows the global geographic distribution of the 17 Development Awards with a partnership in an LMIC (single LMIC counts per project). The highest concentration of Development Award partnerships in an LMIC was in South Africa, Ghana, and Kenya. Over

half of the projects (10) partnered in at least one of these countries. Six Development Awards were working with more than 1 LMIC partner.

2.3 Did the funding call succeed in delivering all milestones?

NIHR had contracted the Development Awards for 9 months, however, NETSCC and DHSC agreed to grant a 6-month no-cost extension to all award-holders in May 2020, to help mitigate for delays caused by the COVID-19 pandemic. One award was granted an additional 3 months due to unexpected delays in signing collaboration agreements, which had prevented the project from progressing. The other awards completed within 15 months (between March 2020 and May 2021). As a result, the dates for the next open competition for substantive funding through the NIHR Global HPSR Researcher-led call opportunity were adjusted accordingly.

With the 6-month extension, 10 out of 17 Development Awards were able to achieve all major milestones. The remaining 7 awards partially achieved planned milestones (see Table 2 for details). Common challenges leading to delays included the COVID-19 pandemic, travel restrictions, protracted intellectual property (IP) negotiations, and other operational challenges such as delays in signing collaboration agreements. NETSCC encouraged award-holders to learn from these challenges, develop mitigation plans for future collaborations, and embed capacity strengthening into future proposals where appropriate.

Table 2. Award-level achievements

Research Programme Title	Main Milestones					If achieved: what source of evidence do you have to support completion? If not achieved: what was the cause?
	a) Support partnership development strengthening	b) Review local context	c) Develop a needs analysis	d) Create plans for institutional and individual capacity	e) Develop a strategy for research uptake and dissemination	
Perioperative health systems to support surgical treatment: Establishing a world leading global health research collaboration to deliver innovative solutions promoting the safety and quality of care for surgical patients	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Identification of research priorities for a safe systems approach to road safety in Nepal	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Co-developing an Evidence-based Plan to Strengthen the Health Care System and Inform Policy to Reduce Cancer Burden in Mongolia: An Interdisciplinary Approach	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Co-developing an Evidence-based Plan to Strengthen the Health Care System and Inform Policy to Reduce Cancer Burden in Mongolia:	✓	✓	✓	*	✓	Successful in building capacity for junior staff on the DA, however managing competing demands on senior academic

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Research Programme Title	Main Milestones					If achieved: what source of evidence do you have to support completion? If not achieved: what was the cause?
	a) Support partnership development strengthening	b) Review local context	c) Develop a needs analysis	d) Create plans for institutional and individual capacity	e) Develop a strategy for research uptake and dissemination	
An Interdisciplinary Approach						staff in LMICs was challenging.
Collaborative partnerships addressing the effects of urban violence on youth access to health services in South Africa and Brazil	✓	*	*	✓	✓	Delays in negotiating/signing collaboration agreements, severity of COVID-19 pandemic in Brazil.
Supporting those most in need: A partnership approach to strengthen health policy and systems research capacity in China and beyond	✓	✓	✓	*	✓	The team did not develop the planned online training materials. Instead, they shifted their approach to capacity building by co-developing concept notes through virtual meetings.
Living in the city: Building collaborations to strengthen health systems to respond to the needs of newly urbanised populations in Africa and Asia	✓	✓	✓	✓	*	COVID-19 travel restrictions did not allow for in-person training and engagement on further capacity strengthening during the award.
Re_Emerge: Research to accelerate progress on emergency preparedness and universal health coverage in four Ebola-affected countries	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Addressing Health System Fragmentation to Advance Universal Health Coverage (UHC) for Low Income Populations in Latin America	✓	✓	*	✓	✓	Limitations in meeting hard-to-reach populations – e.g., slum populations, low-income populations without healthcare access, those in the informal economy, due to the COVID-19 pandemic restrictions.
Strengthening health systems in South Africa to achieve universal health coverage for people with stroke through research, partnership, capability building and stakeholder engagement	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Accelerating the development of Health Policy and Systems Research (HPSR) capacity in Western Pacific Region (WPR) for health system strengthening	✓	✓	*	✓	*	Delays in negotiating and signing collaboration agreements, with knock-on effects on the award.
Improving equitable access to essential medicines in Ghana through bridging the gaps in implementing medicines pricing policy	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Essential diagnostics: developing methods, guidelines and capacity for effective national programmes	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Integrating HIV Pre-exposure Prophylaxis and diagnostic STI care: an individualised public health approach (iPreP-STI)	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
The political economy of universal health coverage reforms: building capacity and engagement of francophone West Africa	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.
Kenya-UK development award to support the design of a whole system approach to facilitate	✓	✓	✓	✓	✓	Evidence from QSTOX progress updates and end of award report.

Research Programme Title	Main Milestones					If achieved: what source of evidence do you have to support completion? If not achieved: what was the cause?
	a) Support partnership development strengthening	b) Review local context	c) Develop a needs analysis	d) Create plans for institutional and individual capacity	e) Develop a strategy for research uptake and dissemination	
the functioning of the baby friendly community initiative within the Kenyan health system						
Post-tuberculosis lung damage amongst pulmonary tuberculosis survivors in East Africa: health system challenges and research priorities	✓	✓	*	✓	✓	Patient perspectives were prioritised, although these were mostly focused on patient groups and advocates living in urban locations in Nairobi and Lilongwe. This decision was made for pragmatic reasons given in-country COVID-19 related travel restrictions.
	17	16	13	15	15	

2.4 Pillar a: Support partnership development between two Joint Lead Applicants, one in an ODA-eligible LMIC and one in a UK institution, to expand partnerships and develop consortia (of between 3 to 5 institutions) - summary of activities.

NETSCC supported award-holders in equitable partnership development by:

- Providing clarity on expectations for equitable research partnerships between LMIC and UK leads and the associated partners. A definition and resources on what constitutes an equitable partnership were included in the NIHR GHR programme website and in the call guidance. NETSCC considered strength and equity of the partnership and equitable split of budget funding throughout the application and funding committee review process. NETSCC underpin a culture of equity within partnerships through providing key communications to the LMIC and UK leads.
- NETSCC required award-holders to report on partnership development as part of their routine monitoring and highlighted examples of good practice in the feedback or requested more information to evidence equity of the arrangements and leadership of the research plans.
- NETSCC scrutinized changes to the award or budget and questioned any changes that could affect the equity of the developing/established partnership.

All award-holders reported successfully developing their research partnership through the funding award received. They reflected on the value of the scheme in fostering equitable, collaborative ways of working between partners. They achieved this through:

- Engaging with new partners during the award, either through a formal Memorandum of Understanding (MoU) or collaboration agreements, or through defining plans to collaborate in the future
- Regular online meetings to discuss progress and objectives
- Co-leadership of webinars, events, and online workshops
- UK leads supporting their LMIC partners to lead on work packages and capacity strengthening
- Co-development of outputs
- Two-way training (LMIC to UK and UK to LMIC)
- Formulating plans for future collaborations, including concept notes and full proposals.

The COVID-19 pandemic and travel restrictions made these engagement activities more challenging and required adjustments to initial expectations for face-to-face engagement. However, the award-holders were able to revise plans and to engage successfully through virtual means, which facilitated wider inclusion than face-to-face meetings. All teams had plans to continue engaging with the same partners beyond the end of the award (see section 4.3 for details).

2.5 Pillar b: Review the local context, existing research literature and health systems – summary of activities

All awards included a workstream to review existing literature and other evidence relating to the local context. This took the form of systematic scoping reviews or literature reviews (15) and policy document reviews (3). Many award-holders complemented this with stakeholder interviews and/or workshops to discuss findings and possible research questions for follow-on work. Other methods used to review the local context and existing evidence on health systems included pathway mapping studies, surveys, or pilot studies.

The document and literature reviews mostly took place in the first part of the award and then formed the evidence base for more collaborative workstreams. At this stage, Development Awards also identified gaps in the existing evidence, to support the activities under the following pillar (2.6) and to formulate research questions and priorities for follow-on work.

- 2.6 Pillar c: Develop a needs analysis, to refine ODA-eligible research questions and priorities through engagement with policy makers, evidence users and local communities, as appropriate. Could include pilot data, feasibility studies and work-force planning - summary of activities

Despite the COVID-19 pandemic, Development Awards were successful in identifying and engaging with key stakeholders including clinicians and other healthcare workers, civil society representatives, policymakers, and NGOs (section 2.8 describes how equality, diversity and inclusion were considered). They achieved this through:

- Stakeholder mapping and direct approaches
- Telephone or virtual interviews
- In-person meetings with key stakeholders
- Delphi studies
- Stakeholder workshops and focus groups (virtual and in-person)
- Surveys
- Dissemination events.

Overall, Development Awards identified the needs of the local healthcare system and built rapport with stakeholders through these engagement activities. Local stakeholders gained understanding of how research can address needs and were involved in identifying priorities for health systems research and capacity strengthening. This contributed to buy-in from stakeholders into the development work. Stakeholders provided valuable local insights into priorities for health policy and systems research in LMIC settings to inform research questions (see section 4.3 for a list of research questions prioritised through the Development Awards) and support development of equitable partnerships required to underpin applications for further funding.

An example of stakeholder engagement:

“To recruit participants to this study we started from our existing list of road safety and first-response contacts and used their knowledge and networks to snowball further potential participants. We successfully managed to include participants from different levels of government as well as from nongovernmental organizations, academia and civil society organisations. The individuals represented a wide range of professional backgrounds including health professionals, engineers, police, transport service operators, transport workers (drivers), road safety activists and journalists. An unanticipated advantage of our shift to online working due to COVID-19 was the engagement of stakeholders from four of the seven provinces in Nepal, including the far west.” [*Identification of research priorities for a safe systems approach to road safety in Nepal*]

The example above and overall achievements of award-holders show the unanticipated advantages of online engagement in terms of geographical reach, economy of travel and convenience. It is also less onerous on stakeholders who can interact with the research from their homes or usual workplace. However, it is more challenging to conduct in-depth, ongoing engagement online without any in-person contact.

2.7 Pillar d: Establish plans for developing institutional and individual capacity and capability – summary of activities

Most Development Awards were able to identify individual training needs and institutional capacity-strengthening opportunities through collaboration between partners, meetings and dedicated workshops. They were able to make the most of opportunities for researchers to receive further training and development both in LMIC and UK settings.

The following example activities contributed to forming plans for institutional and individual capacity-strengthening:

- Development of training manuals and courses
- Workshops to identify training needs
- Capacity-strengthening needs assessment (both academic and administrative/ research support)
- Establishment of a training platform, with plans to expand to other LMIC institutions
- Development of PhD and post-doctoral opportunities, including tasking early-career researchers with leading aspects of the systematic reviews, fieldwork, and authorship of international journal submissions, mentoring research assistants in many aspects of research, and enabling peer-to-peer learning to support their development and future involvement in planned research applications.

Some award-holders reported that it was challenging to develop detailed plans for institutional capacity and grant management skills, given the funding and length of these awards. However, most award-holders identified the capacity development needs and were co-developing approaches to help improve capacity through an equitable partnership going forward.

For more information about mentoring and training opportunities during the award period, please see sections 3.3-3.4.

2.8 Pillar e: Develop a strategy for research uptake and dissemination- summary of activities

Strategies developed for research uptake included:

- Embedding a HPSR training module into a national training programme
- Forming a technical working group to continue collaboration with key stakeholders
- Co-producing a funding application with project partners to continue the work of the Development Award
- Using contact details collected as part of a nationwide survey of healthcare professionals to set up a research network
- Using stakeholder and community engagement to establish a network of policymakers and community leaders

The COVID-19 pandemic affected most of the Development Awards' plans for dissemination within the award period. Several Development Awards chose to move online for their dissemination activities, in addition to developing publication strategies and planning future events. Figure 4 shows the numbers of dissemination activities completed during the award period. These are the activities that award-holders reported, collated based on the data from the reports which demonstrated how key stakeholders were engaged in plans for research dissemination and strategies for research uptake. NETSCC will continue to reflect on what strategies have been effective.

Plans for dissemination beyond the end of the award/for future research included:

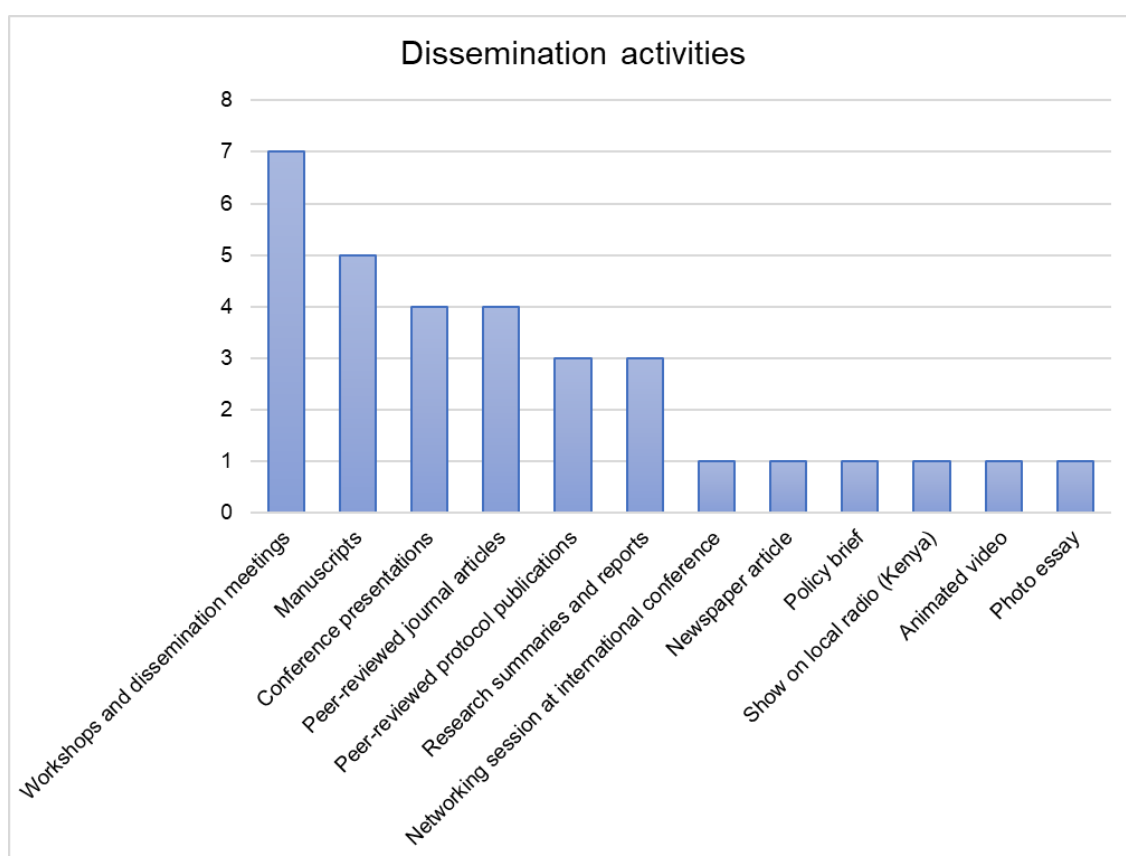
- Open access publications in peer-reviewed journals
- TV programme on national television in Benin
- Publishing policy briefs

- Developing training manuals
- In-person or virtual workshops.

See section 4.3 (plans for follow-on work) for more information.

Evidence of immediate policy impact could be seen through the example of a simple video developed and tailored to raise awareness of National Government medicine policies to support local policy implementation in Ghana – see the box below.

Engagement in Ghana highlighted poor awareness of the government’s implementation of four medicine pricing policies among local policymakers. The team working with the National Medicine Pricing Committee in Ghana produced [an animated video explaining](#) these policies in lay terms. Dissemination of the [video](#) is raising wider awareness of these policies on the correct pricing of medicines in Ghana to support more effective implementation [*Improving equitable access to essential medicines in Ghana through bridging the gaps in implementing medicines pricing policy*]



- 2.9 Delivery partner's assessment of how individuals/communities (including any relevant sub-groups) have been engaged and their needs reflected in identifying research priorities, design/planning, implementation, analysis, and reporting and dissemination.

Fourteen award-holders included details on community engagement in their needs assessment and developed Community Engagement and Involvement (CEI) strategies to underpin a future funding proposal (the remaining 3 awards focussed on policymakers and other high-level stakeholders). They achieved community engagement in different ways, in-person and virtually. Across the cohort CEI activities engaged approximately 931 people. One team engaged additional members of the public more indirectly through a large-scale survey and another through a radio briefing. Table 3 summarises all reported activities across awards.

Examples of CEI, including the impact the pandemic had on some of those activities, are reflected in the excerpts below:

"We had initially planned to invite a broad range of TB survivors and patient advocacy groups in Kenya and Malawi to stakeholder engagement workshops, in order to highlight their perspectives around post-TB wellbeing and care to the broader stakeholder group. However, in person workshops and group gatherings were not possible given COVID-19 related restrictions, and we have therefore focused on 1:1 interviews with patient advocates instead." [*Post-tuberculosis lung damage amongst pulmonary tuberculosis survivors in East Africa: health system challenges and research priorities*]

"In Nepal, a pilot study was undertaken in two urban areas (Kirtipur and Pokhara), in which researchers from the PHASE Nepal team trialled three participatory methods with newly urbanised residents: Participatory Photo, Participatory Video, and Participatory Mapping. This allowed for significant work with members of local communities to verify the relevance of the research questions, trial and adapt the participatory methods, and reflect on needs. A 'behind the scenes' video of the research process was created and shared with the international team as a substitute for the originally planned in-person collaboration on the pilot study." [*Living in the city: Building collaborations to strengthen health systems to respond to the needs of newly urbanised populations in Africa and Asia*]

Most research in this programme was exploratory (i.e., pilots or small-scale data collection), so CEI provided opportunities to design methods for a larger research programme, test acceptability and identify engagement pathways to benefit these populations.

In addition to community leaders and vulnerable groups, several award-holders engaged with wider and more diverse stakeholder groups of people in management positions, policymakers and/or civil society organisations. Several teams reported challenges engaging directly with the community given the COVID-19 pandemic, leading to a bias towards higher-level stakeholders.

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Table 3. Aggregated CEI activities across the Development Awards

Type of CEI activity	Total no. of people engaged	Locations	Vulnerable groups reached	Comments
Community Advisory Groups	56	Brazil, Mongolia, South Africa	Urban youth, cancer survivors, people with stroke, diabetes patients	
Community outreach	At least 115	Rwanda, South Africa, Ghana, Kenya	Injury sufferers, new/breastfeeding mothers	Some awards did not report a specific number of participants
Community workshops	42	China	Members of rural/remote communities	
Contact via civil society/community-level organisations	21	Nepal, Bangladesh, Ghana, Vietnam, Cambodia, Malaysia	Vulnerable road users, rural to urban migrants	
Creation of high level CEI and policymaker groups	9	Uganda, South Africa, Tanzania	N/A	
Dissemination meetings/workshops	85	South Africa, Malawi, Kenya	People with stroke, TB patients/advocates	
Focus groups	17	South Africa, Brazil	Urban youths, youths accessing sexual and reproductive services	
In-person and remote interviews	102	South Africa, Brazil, Mexico, Colombia, Malaysia, India, Malawi	TB patients/advocates, people affected by cancer, urban youths	
Key informant surveys	6,032	Mongolia, South Africa	People affected by cancer, people at risk of HIV	Including one large nationwide survey (6,017 members of the public reached)
Participatory research pilots	96	Nepal, South Africa	Rural to urban migrants, people at risk of HIV	
Radio briefing	10 million	Kenya	N/A	Estimated reach based on listener statistics
Stakeholder virtual meetings	104	South Africa, Brazil, Nepal, Mongolia, Malaysia, Mali	Cancer survivors, vulnerable road users	
Stakeholder workshops/meetings	245	Rwanda, South Africa, Ghana, Kenya, Benin, Cameroon, Burkina Faso	New/breastfeeding mothers, injury sufferers	
Telephone contact with potential stakeholders	5	Nepal	N/A	
Youth meetings	25	Brazil	Urban youths	
Total excluding radio briefing	6,954			
Total excluding radio briefing and nationwide survey	922			

3. Outputs and outcomes

3.1 Did the funding call succeed in achieving its overarching aims (as set out in 2.1)?

Based on the outcomes in the End of Award reports, this funding call achieved its overarching aims (a-e, as described in 2.1), despite the challenges caused by the COVID-19 pandemic. Most Development Awards reported significant achievements across all five pillars, as described in section 2, including: developing new research partnerships and collaboration agreements, identifying, and engaging key stakeholders (including policy makers and communities), undertaking local needs assessments and scoping reviews, identifying LMIC research priorities and undertaking pilot studies to lay the foundations for larger substantive awards.

The Development Awards scheme supported award-holders in developing equitable partnerships, planning research, and supporting content for future funding applications (see section 2.1-2.2 & 4.3 for more detail).

Over half of Development Awards (12 out of 17) submitted applications for further funding which were all reviewed in open competition by NIHR GHR programmes (including Units, Groups and Global HPSR Researcher-led). Some chose to delay applying for further funding to complete planned dissemination and further engagement activities after the end of the award. See section 5.5 for an overview of funding applications made.

For a more detailed analysis of how this contributed to the Global HPSR ToC, please see section 4.1.

Engagement with policy makers, practitioners, and communities – as related to each Development Award pillar (a) - (e)

For the following sections 3.2, 3.3, 3.4 and 3.5, the relevant (a) – (e) heading is included in brackets at the end of each sentence.

3.2 Delivery partner's summary of the most significant outcomes of any award level engagement and/or influence of policymakers, practitioners, and individual/community behaviour

Award-holders engaged with a wide variety of stakeholders at local and often national levels with a few at an international level (a,e) (see examples in Table 4). Stakeholder engagement activities reported were evenly split between local and national levels (b,c,e). This was achieved via interviews, meetings, and workshops to conduct needs analyses and facilitate

co-production of the research (c). These activities also created opportunities for partnership development and network expansion, with many teams collaborating with stakeholders to co-create research that would be relevant, timely, acceptable, and appropriate to the local context (a,b,c). Some teams used surveys to gather the views of service users and healthcare professionals, and others presented their research plans and sought direct feedback from government-level policymakers (c). Award-holders reported policymakers as the type of stakeholder most frequently engaged with, e.g., 10 award-holders held meetings/interviews with policymakers, and 6 reported having shared their findings with policymakers (b,c). Healthcare professionals were involved in 4 award-holders' workshops and had meetings/interviews with 4 award-holders (b,d).

Award-holders considered stakeholder engagement as vital for informing their research plans and priorities. Some outcomes of engagement with stakeholders included:

- One team conducted workshops with the Rwandan Ministry of Health (MoH) to co-develop a digital platform to improve the existing prehospital system, by accurately locating patients and facilitating communication between dispatch, ambulance, and emergency triage staff. With further refinement and data, this has the potential to overcome barriers to access to care and to improve injury systems. The team have successfully applied for further funding to do further testing and development, with a representative from the Rwandan MoH as a co-applicant (b,c,d).
- Engagement in Ghana identified a lack of awareness of the government medicine pricing policies among local policymakers. A team worked with the National Medicine Pricing Committee to produce [an animated video explaining](#) the policies in lay terms. The video has potential to increase awareness of these policies and subsequently lead to correct pricing of medicines (b,c,e).
- An LMIC partner organisation was able to formalise their engagement and operational partnership arrangements with the MoH and National TB Control Programmes in Kenya and Malawi. These relationships facilitated discussions around future interventions/studies and have formed the foundation of several other studies, and so should have a lasting impact (a,b,c).

Many stakeholders expressed interest and willingness to participate in larger research programme applications and potential research awards (a,d). Refer to section 2.8 for CEI related activities.

Table 4. Summary of stakeholder engagement activities

Activity	Stakeholders Engaged With / Influenced <i>n</i> = no. teams reporting this specific type of stakeholder being involved in this activity	International / National / Local, where specified <i>n</i> = number of teams reporting activity at a specific level
Workshops	Community Groups 1	National = 2 Local = 1
	Healthcare Professionals 4	
	Infrastructure Providers 1	
	Other evidence users 1	
	Policymakers inc. government e.g., <i>Ministries of Health</i> 4	
	Professional Associations e.g., <i>Community Pharmacy Practice Association</i> 1	
	Researchers/Academics 1	
	Service Providers/Managers e.g., <i>Ghana Health Service</i> 1	
	Service Users/Patients e.g., <i>people with stroke</i> 2	
Meetings / Interviews	Community Groups 1	International = 1 National = 5 Local = 3
	Civil Society Representatives 3	
	Healthcare Professionals 4	
	Media 1	
	NGOs 2	
	Other evidence users (not specified) 4	
	Policymakers inc. government e.g., <i>Ministries of Health, Department of Health, National Technical Working Groups, Kenyan National TB Programme</i> 10	
	Private Sector 1	
	Researchers/Academics 4	
	Service Providers/Managers 1	
	Service Users/Patients e.g., <i>people with cancer, clinic users</i> 2	
Sharing Results / Findings	Other evidence users (not specified) 2	International = 2 National = 2
	Policymakers inc. government e.g., <i>the WHO, Ministry representatives, National Medicine Pricing Committee</i> 5	
	Professional Associations e.g., <i>National Academy of Science and Technology</i> 1	
	Researchers/Academics 2	
	Service Providers/Managers 2	

LMIC and UK researchers trained and increased support staff capacity

3.3 Training and Capacity-strengthening –Pillar (d)

Development Awards included capacity needs assessments in LMICs to identify training gaps to inform research and capacity strengthening plans within substantive future funding applications (d). In addition, some junior researchers and students were physically engaged in training activities through the awards, which was a positive outcome although not considered a specific expectation for the awards at this stage (a,d).

Development Awards reported career development and training opportunities for LMIC-based staff encompassing aspects from each stage of the research life cycle:

- **Institutional capacity strengthening:** improving grant-writing, financial management, contracting and specification of deliverables, recruitment, ethical approval, data governance, consent, using online technologies, organising workshops (d).
- **Research Programme specific training:** conducting qualitative studies, systematic reviewing, document analysis, conduct and analysis of semi-structured qualitative interviews, research methodologies, realist evaluation, health system analysis, theory of change (b,c).
- **Technical or specialist skills:** medicines pricing strategies, getting research into policy and practice, Health Technology Assessment (HTA) and its use in medicine pricing (d,e).
- **Outputs and dissemination:** paper writing and presenting findings (e).

LMIC institutional and individual capacity strengthening plans

3.4 Delivery partner's summary of evidence of activities and outcomes from across awards demonstrating how NIHR funding has helped to identify key areas for individual and institutional capacity strengthening, to contribute to and lead high quality research and training within a national research ecosystem- pillar d.

In addition to the training themes listed in section 3.3, award-holders provided support to LMIC institutions to establish partnerships and create robust foundations for wider health policy and systems research work in the future. Four projects stated their intention to submit applications for funding to NIHR or other funders to continue the work started as part of the Global HPSR Development Award (a,d).

Identifying the functional limitations at institution-level allowed award-holders to develop tailored approaches to capacity-building as outputs (d). They used targeted training plans to create a robust foundation for future research opportunities. For example:

- Time constraints for senior LMIC staff created opportunities for junior staff to take the lead on some projects, with strong supervision and guidance from UK-based teams, supplemented by on-site support from the senior academics in LMIC organisations (a,d).
- A partnership with Stellenbosch University included access for local KEMRI staff to a wide array of short courses in evidence-based healthcare (EBHC) and led to the establishment of a training platform that can be further extended to other collaborating African countries. The team are now looking for a new grant call in 2022 to progress this work (a,d).
- Collaborating with partner organisations to establish a platform for evidence-based diagnostic practices is enabling the Kenya Medical Research Institute (KEMRI) to build capacity in decision-making, guideline development and translation of diagnostic test research (a,d,e).

UK leads undertook many different types of research capacity strengthening activities with LMIC research partner organisations which included: establishing PhD studentships based in LMIC institutions, training plans for junior and mid-level researchers in LMICs, enhancing financial and grant management skills for administrators to strengthen their ability to support wider health policy and systems research, and stakeholder engagement skills to help develop strong relationships with the key local stakeholders and policymakers (d). More detail on some of the examples of capacity strengthening activities are listed below:

- 10 junior researchers were recruited in partner countries (Ghana, South Africa, and Rwanda) to support research activities on the award (a,d)
- A Ghanaian researcher was recruited to work at University of Birmingham to support their skills development and the project (a,d)
- Two new Nepali Research Associates were appointed to the Kathmandu Medical College to work on an award, receiving further training in ethical approvals, data governance, and other key skills (a,d)
- For one award a UK-based Nepali Research Fellow was transferred to be based in the Nepal Injury Research Center (NIRC) to provide day-to-day management and mentor the Research Assistants (a,d)
- 2 Research Assistants were recruited and supported with virtual training and support from QUB team (d).

Equitable research partnerships and thematic networks established/strengthened

- 3.5 Delivery partner's assessment of the extent to which this NIHR funding has contributed towards building or strengthening equitable research partnerships/collaborations and thematic networks (where applicable, including engagement with communities) – pillar a.

Building and strengthening equitable research partnerships were key aims and outputs of this funding call (pillar-a). Most award-holders already had an existing relationship between 1-3 partner institutes within the consortium and were extending these to develop relationships with newly identified partners with whom there was a form of prior existing link or relationship. At the award-level, there were many excellent examples of co-leadership and evidence that equitable partnerships were a focal point for all award-holders. Most of the funding within awards was allocated toward LMICs (66%) vs HICs (34%) to support LMIC partners in addressing local research and capacity needs (see Table 5 under section 3.6).

Evidence of equitable partnerships provided by teams included research co-creation, shared communication, joint decision making and equitable split of leadership to maximise partners areas of expertise, collaboration agreements and equitable publication/authorship agreements (a,c). They underpinned their approach with mutual respect, trust, and shared learning. The following excerpts from End of Award reports demonstrate how some award-holders achieved equitable partnerships and relationships:

“We have successfully developed a multi-directional learning culture (e.g., Each meeting is Chaired by a different member of the team) and provided space for mutual learning. This participatory and collaborative working style has become embedded within the research team. We have worked together to establish a feasible timetable, with milestones and expected outcomes for each stage of the project and encouraged openness and transparency about challenges and shortcomings encountered.”

[Collaborative partnerships addressing the effects of urban violence on youth access to health services in South Africa and Brazil]

“Since the project inception, we aimed to ground the development of our partnership on four main pillars: cocreation, communication, commitment, and continuous review. Research questions, general plans of work and outputs have been defined together and co-created, and we established regular monthly meetings where decisions were discussed among the wider consortium, agreed and implemented after consensus was reached. In particular, two working groups were established at the beginning of the project on two key areas (“capacity building” and “stakeholder engagement”) with representatives from each team, to make joint decisions on priority activities and approaches.”

[The political economy of universal health coverage reforms: building capacity and engagement of francophone West Africa]

Six award-holders provided evidence of thematic networks being established across partner countries and with key stakeholders. This led to a better understanding of priorities and policy environments, and informed approaches to research, data collection and research uptake. No reports of networks between funded awards were provided, although that was not an expectation for this call. However, NIHR and DHSC brought together 4 award-holders for a satellite session at the Health Systems Global (HSG) 2020 symposium, giving them the opportunity to present their work, reflect on managing the awards, and network. Some award-holders identified opportunities for NIHR to do more to help network and link award-holders across the Global HPSR programme. NIHR could achieve this by creating more opportunities for networking with other award-holders to identify synergies and increase the potential to share learning (see section 8.3 for more information).

In considering whether the funding call succeeded in achieving its overarching aims by relating outputs and outcomes to the a-e headings (as above), Development Awards facilitated early partnership development and routes for regular communication to review local contextual priorities and challenges, agree roles and define shared ownership in the co-creation of the plans for research, capacity-strengthening, and dissemination activities. Partnerships require time to build trust and develop knowledge of different contexts, institutions, and processes to define ways of working within the team and ensure success over time. There are early indications that Development Awards provided time for engagement and secured partner commitments, which have the potential to lead to sustained relationships. Defining collaboration agreements was challenging for some teams to complete in a timely way while developing relationships.

Going forward, NIHR should encourage partners to define and agree a basic yet more proportionate collaboration agreement to outline initial ways of working and the principles of equitable partnership at project start. This would allow funds to flow to partners maximising opportunity for equitable working. Further refinements and greater detail on longer term substantive collaboration agreements could be agreed thereafter as part of award objectives.

Detailed collaboration agreements take time to define and agree with multiple partners, particularly where there are issues related to data and IP. NIHR can aim to share more learning on common challenges and average timeframes to assist award holders in planning timelines.

3.6 Aggregated HIC/LMIC spend across all awards

Overall, across the Development Awards, 66% of funding was committed to LMIC institutions (Table 5). The remaining 34% was allocated to UK institutions. With most of the funding going to LMICs, Development Awards showed a commitment towards levelling the playing field and establishing equitable research partnerships and supporting the development of research capacity in LMICs.

Table 5. Allocation of funding across UK and LMIC institutions

	Total committed amount (GBP) allocated to:	% of total committed amount to all institutions:
UK/HIC institutions	£503,591	34%
LMIC institutions	£975,321	66%
All institutions	£1,478,912	100%

4. Theory of Change and progress towards longer term impacts

- 4.1 Contribution of the Development Award programme to the Global Health Policy and Systems Research Theory of Change, the NIHR GHR Theory of change and programme ambitions.

The NIHR Global HPSR programme was designed to help address identified gaps in research and capacity for HPSR within low-resource settings. The NIHR Global HPSR programme comprises a pipeline of 3 complementary opportunities: the Development, Commissioned, and Researcher-led award workstreams.

During the active phase of Development Awards, NETSCC developed the [NIHR Global HPSR programme theory of change](#) and associated narrative, which is nested within a broader [NIHR Global Health Research Programme theory of change](#). By publishing these, NIHR seeks to assist the research community and indeed NIHR in undertaking monitoring and evaluations of the programmes and their emerging impacts. NIHR then measures the impact emerging over time and tests whether the initial assumptions hold true and/or whether there are any unintended consequences.

Outcomes – Sphere of Direct influence

Development Awards, as a researcher-led funding stream, supported following outcomes:

- Strengthened equitable research partnerships between LMIC and UK institutions to deliver large scale HPSR projects
- Increased capacity in LMIC and UK institutions to identify global health policy and systems priorities through engaging with relevant stakeholders
- Identifying needs in the local context, including through literature review and needs assessment, as well as to support grantsmanship
- Self-sustaining multi-disciplinary global research networks are created for Global HPSR.

There is clear evidence the first two of these anticipated outcomes have been achieved by the Development Awards. Several award-holders have secured further funds to progress these areas of research and capacity strengthening to meet LMIC needs. These substantive awards should start to demonstrate impacts in the mid- to long-term.

Self-sustaining, multi-disciplinary networks in global HPSR

Award-holders have started to develop their own networks, but several fed back that NIHR could have done more to facilitate regular opportunities for the cohort of award-holders to interact, share learning and thus strengthen NIHR Global HPSR networks. Moving forward, NIHR will create opportunities to support the NIHR Global HPSR community through the Global HPSR programme and other NIHR GHR programme awards.

Strengthened equitable partnerships to improve health systems and services

The Development Awards appear to have delivered on the Global HPSR programme's ambitions to contribute to improving health systems and services in LMICs through equitable research partnerships, by engaging stakeholders and addressing identified LMIC needs.

Increased capacity strengthening in LMIC and UK institutes

Research, and research support capacity-strengthening needs within low resource countries and regions which have previously been under-funded and/or under-researched have been supported through Development Awards.

Identification of priorities through engagement of stakeholders and communities

Finally, awards have fostered positive engagement with key stakeholders and communities in LMICs and initiated collaborative work with communities, including vulnerable populations to identify local priorities and co-designed research addressing these needs to underpin substantive research funding applications. Engagement activities informed the plans for dissemination, and approaches to influence the uptake of research findings into practice and policy. In focusing on activities and priorities that can reduce health inequities and support the improvement of health and well-being in LMICs these awards are supporting long term ambitions towards achieving the SDGs and UHC.

4.2 Delivery partner's summary of any other noteworthy outcomes beyond those captured above

The ability to effectively transition to engage a wide range of stakeholders and communities using virtual means was an unexpected outcome with benefits for wider inclusion and reduced travel; although these benefits do not replace the need for face-to-face meetings to develop sustained, trusted, and effective relationships (see section 2.5).-Overall, the COVID-19 pandemic's impact on the Development Awards has highlighted the adaptability of researchers and stakeholders. The timing of the scheme during the pandemic has also provided insight into how to mitigate shocks and uncertainty in research projects, both from the researchers' and the funders' perspectives.

Another noteworthy outcome is the funding applications submitted by Development Award-holders to w other NIHR global health research programmes (such as Groups and RIGHT)

as well as to the larger Global HPSR calls, some of which were successful, see below. This shows the linkages between NIHR global health programmes, and the welcome inclusion of a health systems perspective into the wider NIHR GHR landscape.

4.3 What are the next steps for projects funded through this funding call?

Most Development Awards have outlined plans for further collaboration, including applying for additional funding or planning to do so.

Twelve Development Award teams provided details of a total of 20 subsequent research and/or infrastructure awards applied for and/or secured by LMIC partners (including proposals with a joint UK lead). The remaining five awards did not state any intention to apply to NIHR GHR programme awards. Ten Development Awards submitted substantive follow-on applications to the 2021 NIHR Global HPSR Researcher-led open call. One team's LMIC partner submitted an unsuccessful application to the NIHR/UKRI Global Effort on COVID-19 (GECO) call (see section 5.5).

Planning activities supported across this call helped to identify and engage key stakeholders to elicit research questions on the health system needs, and to consider pathways to impact, which form a solid foundation for content of future high-quality research applications. Most awards plan to continue their collaboration with the same LMIC partnerships established through the award. Some reported wanting to expand their partnership network into new low-resource country settings and aiming to collaborate with other institutions identified during the award, or those that may be identified according to need. The areas identified for further research within the Development Awards included:

- Barriers and solutions to implementing the WHO essential diagnostics list and systematic evidence-based approach in adopting diagnostic guidelines into national settings
- Barriers and solutions to improving access to injury care
- Barriers and solutions to seeking and accessing public sector healthcare services for youths in low-income urban settings, and the links with community violence
- Barriers and solutions to implementing baby-friendly initiatives in hospitals compared to community settings
- Impact of disease outbreaks on health delivery and, ultimately, health security
- Better diagnostics and treatment for asymptomatic curable sexually transmitted infections to help curb antimicrobial resistance
- Early detection, increasing awareness, and reducing prevalence of risk factors of cancer

- New models of post-TB care and overcoming implementation challenges
- Implementation of medicines pricing policies
- Evidence to support policies on improving healthcare access for disadvantaged populations
- Health systems needs for universal coverage of stroke care.

This list of outputs demonstrates achievement of key criteria ‘c’ *to refine ODA-eligible research questions and priorities.*

Most awards reported that the existing contractor would be most likely to continue to lead on future proposals in all these areas of identified need. This was due largely due to administrative reasons, where the partnership had been established, was functional and maximized each of the partners strengths. However, the Development Award scheme made contractors more conscious of considerations such as joint IP ownership, the need to support the institutional capacity-strengthening of LMIC partners and building the administrative and financial skills required when leading a larger funding award.

Most award-holders had plans for dissemination within the period of the award, but the impact of the COVID-19 pandemic reduced the opportunities for travel and in-person dissemination activities. As a result, some of the planned dissemination activities within the contract periods could not take place (e.g., in-person workshops, meetings with key stakeholders to present outputs, conferences). However, NIHR facilitated opportunities for award-holders to continue dissemination activities beyond the end of their contracts, subject to specific rules around costs and activities. This has allowed underspend from travel or other means to be effectively repurposed to support planned dissemination, whilst maximising the value for money of the awards. Examples of such dissemination plans include production of:

- Open access publications in peer-reviewed journals
- Policy briefs
- Training manuals
- In-person or virtual workshops.

5. Value for money

NIHR ensure that research teams justify how funds contribute towards improved health outcomes for people living in LMICs. This includes ensuring research and its outcomes are contextually appropriate and generalisable to maximise the impact of every pound spent across the research life cycle. NETSCC integrate an ongoing assessment of value for money within the research management processes. This builds on the FCDO 4E approach.

The 4 Es are defined as follows:

Economy – the degree to which inputs are being purchased in the right quantity and at the right price

Efficiency – how efficiently the project is delivering its outputs, considering the rate at which intervention inputs are converted to outputs and its cost-efficiency

Effectiveness – the quality of the intervention's work by assessing the rate at which outputs are converted into outcomes and impacts, and the cost-effectiveness of this conversion

Equity – degree to which the results of the intervention are equitably distributed

5.1 Economy

Staff time is the most significant input, as such robust staff recruitment processes are required, to help equip teams with the most appropriate expertise to prioritise local research capacity. Additional services/consultancy is purchased only when necessary (for example, IT support, transcription, and translation services).

Some examples of good economic practice:

- A senior academic provided 20% FTE at no-cost during the study (as this salary was covered by a post-doctoral research fellowship)
- Participant engagement activities being managed by employed Research Assistants (supporting their development), rather than requiring a Research Coordinator resource.
- Working directly from interview recordings using available team translation expertise rather than recruiting an external translator
- Utilising existing capacity to undertake systematic reviews, and involving master's degree students in data extraction/facilitation for workshops, to maximise available budget and expertise in low resource settings

- Using institutional websites and software to host open-access project pages and training webinars

Although Development Awards were costed for 9 months, they all received a no-cost extension and had to deliver the project over 15 months within the same funding envelope. Award-holders used economy to ensure value for money:

“Over the period of the 15 months award duration, and for the cost of a 9-month award, we have engaged social scientists, implementation science experts, health economist, behavioural scientist, statistician, STI clinician, data management team and research assistants to be able to deliver on the objectives of the project.” *[NIHR GHPSR Award on Integrating HIV Pre-exposure Prophylaxis and diagnostic STI care: an individualised public health approach (iPreP-STI) at the University of Sussex]*

5.2 Enhanced efficiency

Travel restrictions and virtual networking, whilst challenging, resulted in unexpected efficiency savings. For example, online training and networking events have resulted in dissemination of findings at speed and scale, while recordings from online dissemination events can be stored as a digital object identifier (DOI) for speedier analysis, manuscript writing and grant proposals (and future reference).

“We attended the final investigator meeting in Ghana having already analysed all of the data – hence we were able to maximise time for shared learning, understanding the meaning of the results, and developing the next steps.” *[NIHR GHPSR Development Award on Equitable access to quality trauma systems in Low-and Middle-Income Countries. Assessing gaps and developing priorities at the University of Birmingham]*

Programmes noted the importance of recruiting to clearly stipulated roles with supervision from PIs and having regular working group meetings which ensured that targets were achievable and met. ‘Peer-to-peer’ online training and mentoring proved to be a fast and cost-effective means of sharing technical expertise across teams. Similarly, drawing on liaison officer skills at a partner organisation helped establish strong relationships with stakeholders that were required to ensure delivery of the planned project outputs.

“We also gained efficiencies through combining stakeholder engagement and planning activities with a GCRF pump-priming grant awarded to colleagues at the University of York who will be collaborators on at least one planned grant application which we plan to submit as follow on from our development grant activities.” *[NIHR GHPSR Development Award on Addressing Health System Fragmentation to Advance Universal Health Coverage (UHC) for Low Income Populations in Latin America at Imperial College London]*

5.3 Effectiveness

Through the modest duration of the project, programmes have been able to assess their effectiveness against capacity and network building activities, identifying areas for future success, and laying the groundwork for robust project proposals. Of particular note were:

- Development of a comprehensive Monitoring and Evaluation capacity-strengthening framework embedded into a Global HPSR training module.
- Production and publication of a large-scale evidence synthesis, comprising a systematic literature review, document analysis and interviews with key stakeholders in two target countries.
- Development of a strong international consortium, comprising the University of Edinburgh, College of Medicine and Allied Health Sciences (University of Sierra Leone) and the College of Health Sciences (University of Liberia), all well-positioned to deliver an innovative, policy-relevant research programme in health systems for health security.
- Generation of data from the Development Award to support a compelling case for introducing diagnostic STI care in South Africa to support planned funding applications to evaluate delivery care models.
- Development of a formalised partnership between African Institute for Development Policy (AFIDEP), the Kenya and Malawi MoH and National TB Control Programmes (NTP), and TB patient advocacy group 'Paradiso' (participating as co-applicants) on a full NIHR Global HPSR award application.

“Our partnership exceeded our anticipated outcomes – we developed three papers (our initial estimation was two), developed a consortium with the University of Malaysia and completed and submitted a Research Programme to the NIHR Global Effort on COVID-19 (GECO) call within the project timeframe; this was expected only after conclusion of this Partnership award. We have also mentored four young researchers throughout the project, who also contributed to all the research outputs.” *[NIHR GHPSR Development Award on Strengthening health systems in South Africa to achieve universal health coverage for people with stroke through research, partnership, capability building and stakeholder engagement at London School of Hygiene & Tropical Medicine]*

5.4 Equity

All teams embraced and actively promoted equitable partnership strategies and extended due diligence practices to their partner organisations to monitor policies on fairness and inclusion. Recruitment processes were a significant exemplar of these values in action:

- Training workshops involved participants from both within and outside the MoH and/or the public sector, from multiple states/regions, and different professional backgrounds.
- Investigators who worked on one award [*Equitable access to quality trauma systems in Low- and Middle-Income Countries. Assessing gaps and developing priorities*] had an equal gender balance for staff based in LMICs and were supported in the main by the UK based team working on the project who were all female.
- For one award, [*Co-developing an Evidence-based Plan to Strengthen the Health Care System and Inform Policy to Reduce Cancer Burden in Mongolia: An Interdisciplinary Approach*] the research team comprised 5 UK researchers (including three women) and eight LMIC researchers from Mongolia (including six women). All activities were led by LMIC colleagues with support from their UK partner.

Staff development opportunities are a key part of equitable partnerships and show commitment to capacity-building beyond the term of the Development Award. Some examples noted included:

- All data analysis were planned to be completed jointly, with team members involved in all the resulting publications.
- Publications were planned to be authored as a group with a contributor's statement transparently describing everybody's roles.
- Training and publication opportunities were prioritised for the AFIDEP junior researchers to be involved in the grant, two of whom were co-applicants on a follow-on NIHR Global HSPR application.
- At Universities of Leeds and Ghana, Early Career Researchers were given the opportunity to lead particular aspects of the research plan with mentorship support and supervision from senior team members.

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

NETSCC embed the consideration of vulnerable groups and the requirement of improving health in underserved areas in LMICs throughout programme delivery. NETSCC and DHSC co-developed call guidance to ensure relevant advice to research teams on the expectations for embedding and meeting the needs of the most vulnerable and at-risk groups in research applications. The focus of the research and ODA eligibility are reviewed through remit and compliance checks, and incorporated in international peer-review, and assessment reviews of applications by an independent Funding Committee. Applications that do not demonstrate direct and primary relevance in meeting the needs of LMICs and more specifically in meeting

the needs of the most vulnerable groups within LMICs are not supported for funding. The Development Award funding committee comprised international expert reviewers but at the time did not specifically include members with direct CEI expertise. Since then, inclusion of members with direct and relevant CEI expertise has been made standard across all GHR programme calls including Global HPSR awards.

As part of NETSCC's monitoring processes, staff review progress reports to ensure that the conduct of the research follows the approved aims of the funded application, and that any changes are justified. Staff consider ODA compliance at every stage of their review, including the gender balance, CEI, assurance and safeguarding approaches within the research team, and their approach to the inclusion and safeguarding of vulnerable participant groups. NETSCC also required Development Awards to produce evidence that they attained the requisite ethical approvals for their activities. Finally, NETSCC highlight examples of good practice in their feedback to research teams and ask for more information where greater detail or clarity is required.

5.5 List of any additional research and infrastructure grants applied for and/or secured **by LMIC partners** during the course of this NIHR funding (or as a consequence of this funding)

59% of Development Award-holders applied to the Global HPSR Researcher-led call and over 70% applied for further funding from NIHR generally. This may be an early indication of the programme's success in preparing teams to submit larger funding applications (more detail in section 4.3). Overall, NIHR received 16 applications for further funding related to Development Awards, 6 of which were successful (37.5%).

This is an encouraging result, given the highly competitive nature of the funding. Unfortunately, significant cuts to the UK ODA budget across other funders reduced the number of opportunities the teams had to apply for further Global Health funding. Some award-holders reported applying to the Wellcome Trust, British Academy fellowships, Canadian Institute for Health Research and UNITAID. Finally, some award-holders have chosen to delay applying to strengthen their partnership and develop competitive funding applications.

6. Risk

6.1 Fraud, corruption, and bribery.

No allegations of fraud, corruption, or bribery were reported during the lifetime of these awards.

NIHR Global HPSR Development Awards were contractually required to undertake due diligence on all downstream partners and establish collaboration agreements compliant with the DHSC research contract, prior to any transfer of funds. NETSCC have named assurance leads who support staff and researchers with assurance compliance and concerns.

Approximately 5% of quarterly financial reports from awards undergo spot checks of transaction listings, invoices, and receipts, with further in-depth checks as necessary.

Within this reporting period, NIHR:

- Developed a coordinated cross-centre approach to active and ongoing due diligence and assurance of all GHR and Global HPSR awards.
- Routinely updated the cross-NIHR assurance group regarding any potential risks to ensure shared learning across the funded awards.
- Supported DHSC to evidence the current NIHR approach to monitoring assurance and compliance as part of the Independent Commission for Aid Impact (ICAI) review into fraud.
- Published an [incident reporting form](#) for individuals external to NIHR and developed an internal SOP which clarifies the approach for NIHR teams to manage concerns related to fraud, bribery, and corruption (and safeguarding) that are formally reported to NIHR.

6.2 Safeguarding

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

No safeguarding incidents were reported during the lifetime of these awards.

NETSCC promoted the UK Collaborative on Development Research (UKCDR) [Guidance on Safeguarding in International Development Research](#) and [practical application of guidance in COVID-19](#) to all award-holders in April 2020, and shared the [FCDO enhanced due diligence for external partners](#) to support award-holders' understanding of what is expected in terms of safeguarding, and their obligations to anticipate, mitigate and address harm.

NIHR ensures that the approaches to safeguarding, assurance processes and guidance development are consistent with other GHR funders such as FCDO. UKCDR and NIHR ran a webinar for NIHR award-holders in July 2020 to share the new UKCDR guidance and reinforce NIHR expectations on safeguarding.

During the lifetime of these awards, NIHR published [Safeguarding Guidance](#), [NIHR Policy on Preventing Harm in Research](#), and the [NIHR incident reporting form](#) (Fraud, safeguarding, security or incident of concern) and associated internal incident reporting SOP for staff.

NETSCC have named safeguarding and assurance leads who support staff and researchers with safeguarding concerns and compliance.

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

NIHR provides guidance to funded teams on expectations for addressing sustainability within the awards via the [NIHR Carbon reduction guidelines](#).

Many Development Award teams' original plans included measures to reduce their carbon footprint, e.g., by minimising international travel, holding routine meetings online, and not providing hard copies of documents. However, all teams had to adapt their plans due to COVID-19 travel restrictions during the pandemic, and the majority noted reduced environmental impact as an unintended benefit of these changes. The travel restrictions meant that they had to rely almost entirely on virtual meeting platforms, and in some cases, it was necessary to switch to remote data collection.

Teams also reduced their environmental impact by opting to use equipment already available to them (as opposed to purchasing new items) and by planning dual purpose meetings to reduce the number of trips made.

7. Delivery, commercial and financial performance

7.1 Performance of awards on delivery, commercial and financial issues

The award cohort concluded in the reporting period leaving a total of an 8% underspend compared to budgeted expenditure. Most awards had minimal underspend, although some awards (3) exceeded the minimum 10% underspend threshold, the reasons noted for this were:

- Reduced staff costs due to data collection activities moving online, e.g., the budget for the project coordinator for interview bookings and workshop events were not necessary
- Reduced travel costs due to COVID-19 travel restrictions
- Events not taking place due to COVID-19 travel restrictions
- One award did not claim costs for some of their partners as budgeted in the application. One collaborating institution moved into a more advisory role within the Award, and another was due to formally join the collaboration, but this was not possible during the time of the award due to COVID-19 travel restrictions. Nonetheless, there was good progress in partnership development, and plans to continue the collaboration in the future.

The impact of the pandemic cannot be understated. However, the overall financial performance of the awards was satisfactory and aligned with the objectives set out at the application stage. NETSCC reviewed significant virements of funds and escalated these to DHSC as required, in line with the escalation policy.

7.2 Transparency

- Delivery partner to confirm whether or not International Aid Transparency Initiative (IATI) obligations have been met (please refer to <https://iatistandard.org/en/iati-standard/>). Yes/No
- If these are not yet met, please outline the reasons why.

Yes. DHSC reports transparency data relating to the NIHR Global HPSR awards to the IATI registry on a quarterly basis.

All funding call guidance and outcomes are continuously published on the NIHR website and full details of the research funded are available on the [NIHR funding and awards](#) and [NIHR open data](#) platform.

Most Development award-holders (65%) stated in their final reports that their contractual IATI reporting requirements had been met:

Yes = 11 (65%)

No = 6 (35%)

The IATI reporting requirement is still new to many organisations, and 4 teams stated that they were not able to meet the deadline as their organisations had to register with IATI first and there was not enough time to then submit their reports before the end of the contract. Two other teams are still preparing their reports. One team was slightly delayed due to contracting delays related to the COVID-19 pandemic.

8. Monitoring, evaluation and learning

8.1 Monitoring

NETSCC implemented a proportionate monitoring approach for Development Awards, in agreement with DHSC. This included quarterly progress updates embedded into the quarterly finance review (QSTOX). The progress questions required award-holders to report against critical milestones, estimate their percentage of progress and respond to specific questions related to the impact of the COVID-19 pandemic. NETSCC provided monthly portfolio management updates to DHSC and detailed progress notes quarterly following the QSTOX reviews including an indicative risk rating. Following NETSCC's review of project risk assessments, a Red-Amber-Green (RAG) overall risk rating system was implemented in January 2021 across all GHR programme awards including Development Awards. See section 8.4 for recommendations with regards to the proportionate monitoring approach.

At closure of the cohort of Development Awards, 11 were rated green (no major risks to funded outcomes) and 6 were rated amber (moderate risks to funded outcomes). One of the awards was rated red (major risks to funded outcomes) for the duration of the award due to delays in progress and poor communication. NETSCC mitigated the issue by encouraging the team to put forward a request for additional no-cost extension to mitigate delays, which DHSC approved. The main risks identified throughout the Development Award programme period were related to the COVID-19 pandemic, collaboration agreement delays, and issues with communication from award-holders. These risks largely related to the resource and time challenges when building new research partnerships and engaging communities within the context of a pandemic. Challenges were also experienced where engagement with new partnerships took longer to establish than initially anticipated. Learning from these risks is included in section 8.2 below.

NETSCC also managed a small number of programme changes for virements between budget headings above £20k and/or other changes in line with the NIHR GHR Programme Escalation Policy. Most requests were to move activities online or repurpose travel underspend to support data collection or dissemination.

Finally, Development Awards submitted a light-touch end of award report summarising their key achievements, as well as follow-on plans. NETSCC also requested an annex describing IP arrangements and any barriers to exploiting the IP identified during the award. The reports were due within 14 days of the contractual end of the award and were submitted on time.

8.2 Evaluation

Through annual and end of award reports, NIHR summarize the key achievements, impacts, and share lessons learned across the cohort of awards and centres managing the GHR programme awards. The learning captured is applied to improvements to the design of new call opportunities across the NIHR GHR programme, to help strengthen the development call specific or core guidance and inform the review of policies and standard operating procedures across NIHR GHR programmes. NIHR also ensure close alignment across domestic and ODA-funded activities towards attainment of a 'single consistent NIHR approach' wherever possible.

NETSCC have embedded continuous improvement and evaluation into routine monitoring processes and openly invite feedback from award-holders at any stage of the research management process. For Development Awards, NETSCC invited specific feedback on the value of the funding scheme in the end of award report. All findings and recommendations received are contained within this report and will be shared across centres managing NIHR GHR programme and partnership awards (see section 8.5 for more information).

8.3 Learning

NETSCC's learning processes include after action reviews after calls, funding committees, contracting, and annual/programme completion reviews. These focus on the learning from the research management process, and they are an opportunity to share learning on processes between and across coordinating centres and the DHSC. This includes discussions on what was expected versus what was actually delivered, positive achievements, emerging challenges, and how NIHR processes may be improved in relation to specification of funding calls and guidance to applicants or award-holders.

NETSCC captured learning points and feedback on NIHR processes emerging from progress reports or *ad hoc* correspondence in view of continuous improvement. Such feedback is routinely discussed internally, and a summary of learning is escalated to DHSC and shared with other centres managing GHR programme awards for further action, as appropriate.

Some award-holders highlighted the need for administrative and financial capacity strengthening to address identified research gaps in LMICs. NIHR supports substantive award-holders to undertake Good Financial Grant Practice (GFGP) and to use this assessment to identify gaps in administration including financial, assurance and HR skills or capacity, which should be highlighted to Development Award holders. Whilst Development Awards were relatively small awards, award-holders, especially LMIC partners, still found the administrative processes quite burdensome. For one award, an unanticipated consequence of having an equitable budget split between UK and LMIC was that managing

administrative costs (e.g. travel) took far more time and resource for LMIC partners than it did for UK partner institutes.

In other cases, the requirements at LMIC institutions for reporting, financial management, and general administrative tasks affected overall project researcher time when the UK lead needed to provide more support for LMIC partners in their understanding of and ability to meet the required reporting for the Global HPSR programme.

One award-holder also identified the need for further capacity-strengthening in Intellectual Property (IP) management. NIHR's contractual IP requirements and expectations for IP management highlighted that LMIC partners did not have an equivalent level of IP or technology transfer support compared to UK Higher Education Institutions (HEIs), nor the core research team knowledge to provide routine support. This award-holder suggested that NIHR could provide more support for IP and technology management training to help strengthen institutional capacity for research in LMICs.

Related to Development Awards specifically, NETSCC organised and delivered a satellite session at the HSG 2020 symposium in January 2021, titled "To walk before you can run: Ensuring global health systems research questions are informed by stakeholders in the context concerned" which was chaired by Professor Dame Anne Mills (NIHR Global HPSR funding committee chair). This was an opportunity to bring together NIHR, DHSC and representatives from three Development Awards to showcase the new NIHR Global HPSR programme and to focus on the impact of the Development Award scheme. In addition, it fostered a helpful discussion on the value and challenges for researchers when developing components to underpin a substantive funding proposal within the Global Health landscape. A recording of the session is available to HSG members and upon request from NETSCC.

In 2020 NIHR supported another session for HSRUK 2020 on '[mobilising UK HSR capacity and learning to build partnerships for tackling health policy and systems challenges in low- and middle-income countries](#)'. Both sessions raised awareness of NIHR funding schemes with UK and LMIC audiences.

The following recommendations emerged for NETSCC based on the learning and challenges experienced from this cohort:

- Given the early-stage of most partnerships and engagement at award inception, the 9-month timescale initially advertised for Development awards was considered too short to both develop partnerships and to engage communities to identify research gaps and priorities to inform a future funding application. Time scales for such activities were further impacted by COVID-19 so there was a need for greater flexibility.
- Opportunities for greater networking and regular sharing of learning across the cohort could be supported and would be welcomed.

- Funding committee members and applicants may require even more guidance to clarify the expectations for this type of award, given these are planning awards and have different expectations compared to substantive research funding proposals. Proposals came from teams with a wide variety of starting points involving planning and/or research work, and the criteria for competitiveness, the level of planning detail expected and research anticipated could be clearer in the future.
- What are the key lessons identified (for the delivery partner or that apply across awards) during the lifetime of funding that have not already been covered above for this funding scheme? What worked well and what did not?

There were several aspects of learning related to adaptations due to the COVID-19 pandemic, specifically moving to online engagement and how this compares to in-person engagement. These include:

- There were concerns for some about online meetings in terms of cultural norms (i.e., preference for face-to-face) as well as internet stability. Overall, online meetings required flexibility from both research teams and stakeholders to make relationships work. Where trusted relationships had been developed already this transition was generally easier, but it did not prevent relationship building where there was no option to meet in person.
- An unanticipated advantage of shifting online for one Development Award was being able to engage stakeholders from a wider geographical area than if stakeholder engagement had been only in-person. Overall, they found online engagement much more successful than they had anticipated.
- Generally, most award-holders indicated preferences for at least periodic face-to-face engagement compared to interacting with research partners solely online, to ensure better inclusion across all stakeholders. Award-holders noted several examples of successful online engagement and acknowledged the positive environmental impact, due to significantly reduced travel.

Other lessons learnt include:

- One award-holder reported that they had identified training and capacity-strengthening needs for IP management. They suggested that NIHR awards could encourage funding to be used for LMIC partners to learn IP management and technology transfer skills. Another team also highlighted the need for LMIC countries to lead on IP matters as they take on much of the project implementation and data collection.
- For some, delays and issues with administrative and financial processes highlighted the need to consider these capacity needs and factor the associated resource and training costs more effectively into future applications for funding.

- Some award-holders learned throughout the development work that their planned CEI activities did not consider some important contextual factors (e.g., the existing levels of trust of local communities in authorities or researchers) and found it challenging to engage with some of the more vulnerable and hard-to-reach populations. They have mentioned that they wish to strengthen this in future work. NIHR can help strengthen and share learning regarding these aspects, for example through sharing learning from previous GHR cohorts as well as other resources.

8.4 What recommendations do you have based upon lessons learnt for future funding calls?

Several lessons relate to the developmental work itself and how the award-holders plan to take their collaboration forward. However, there are also some learning points for NIHR. NETSCC recommend the following for potential Development Award calls in the future:

Recommendations:

- Maintain a single stage assessment process and the current level of funding for future Development Awards, which were found to be appropriate.
- A minimum 12-month duration for these awards, with flexibility for applicants to advise and justify the required duration up to 24 months maximum, based on needs.
- Strengthen guidance to applicants on the likely proportion of partnership development and the amount of research expected during the Development Awards and require that the balance proposed is well justified and appropriate given the status of the research partnerships.
- Advise the committee on what to expect and how to manage those awards that may have less pilot feasibility research work and more planning and engagement with partners.
- Incorporate NIHR GHR recent improvements to embed CEI throughout the award lifecycle, including input from CEI Funding Committee members and requiring award-holders to have a CEI lead to strengthen this aspect of the developmental work.
- Raise awareness of researchers to the potential challenges and timeframes required to agree detailed collaboration agreements. Encourage a proportionate fit for purpose agreement within 3 months to facilitate funding flows whilst teams collaborate and finalise more detailed substantive collaboration agreements during the remains of the award or prior to future awards commencing.

- Develop learning and development resources to clarify the expectations and share prior cohort's learning on the approaches that have been successful in other contexts at the start of new funding awards.
- Provide a platform or mechanisms to facilitate the funded teams in networking with partners and sharing learning within and across the cohort of existing NIHR GH awards
- Provide appropriate NIHR IP engagement proportionate to the nature of the call, and relevant assurance training to all applicants to new calls and during active awards as standard. Streamline financial payments according to a risk-based approach.
- Explore what resources are available across the cohort to supplement sustainable LMIC-based learning.
- Highlight potential for Good Financial Grants Practice to help inform areas for partners institutional capacity strengthening as part of Development Award activities
- Consider opportunities to support grant writing training to support new applicants (LMIC and UK) in applying for substantive GHR awards and funding schemes
- Maintain a proportionate approach to the monitoring, reporting and evaluation of Development Awards; consider providing more clarity on required content for reports.

8.5 Any other comments/feedback/issues to flag to NIHR/DHSC?

Overall, award-holders provided very positive feedback on NIHR, the Development Award scheme, and the support they received from NETSCC staff. However, based on the experience of the Development Award funding scheme, NETSCC have identified the following areas where they could have improved their support to award-holders:

- Appropriate and proportionate IP and award management guidance to applicants and award-holders from the outset, and adopt a more proportionate approach overall to this type of planning award. In addition to updating the call guidance, a 'Welcome webinar' for contracted awards would be useful to allow award-holders to ask questions directly. This may also have improved the consistency of reporting.
- In addition, the starting position for IP ownership "resting with the UK lead institution" is inequitable for partners in LMICs. Although the contractor owning the IP is standard for awards held in England/UK, NIHR will support any arrangement where the party best placed to exploit the IP (UK or LMIC) holds ownership. On a case-by-case basis, joint IP was considered and approved. However, this took a long time and could have been a 'milestone' during the award rather than pre-contracting. As most Development Awards

did not produce any commercial IP, a more proportionate approach would be preferable in future.

- Consolidating the reporting process so it remains proportionate and gives award-holders the opportunity to seek clarity, provide feedback on facilitators and barriers, to identify ways to improve processes, in addition to their progress updates. More targeted monitoring and opportunities for greater interactivity between the awards and NETSCC would have been beneficial. For example, supporting the use of a dedicated Global HPSR award platform or integration of these awards within a wider GHR Unit and Group programme SLACK channel.
- Encouraging more cross-award learning and creating opportunities for networking between the cohort through start up meetings, and possibly some regular sessions to engage members and NETSCC.

In addition, NETSCC recommends the following for DHSC consideration:

- Tracking future outputs, dissemination and further funding is especially valuable for Development Awards. Therefore, NETSCC recommends the proportionate use of Researchfish or other mechanisms to collect data on Development Award's progress beyond the end of their contract.

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