



Final Report

End-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST)

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Submitted by Itad



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List of acronyms

A4EPR	Alliance for Epidemic Preparedness Response
AAR	Annual After-Action Review
ACDC	Africa Centre for Disease Control
AFCOR	Africa CDC COVID Task Force
ALERTT	African Coalition of Epidemic Research, Response and Training
AMR	Antimicrobial Resistance
AU	African Union
AVoHC	African Volunteer Health Corps
CDC	Centres for Disease Control and Prevention
CDT	Core Deployable Team
CEPI	Coalition of Epidemic Preparedness Innovations
COMAHS	University of Sierra Leone College of Medicine and Allied Health Sciences
COVID-19	Coronavirus disease, SARS-CoV-2
CSO	Civil Society Organisation
DABA	Double Antigen Binding Assay
DFID	UK Department for International Development
DHSC	UK Department of Health and Social Care
DRC	Democratic Republic of the Congo
ECSA-HC	East, Central and Southern African Health Community
EIPM	Evidence-Informed Policymaking
EMT	Emergency Medical Team
EOC	Emergency Operations Centre
EPRR	Emergency Planning Resilience and Response
EQ	Evaluation Question
ERT	Epidemic Response Team
ESRC	Economic and Social Research Council
EU	European Union
EVD	Ebola Virus Disease
FCDO	Foreign, Commonwealth and Development Office
FCO	Foreign and Commonwealth Office
FETP	Field Epidemiology Training Programme
FIND	Foundation for Innovative New Diagnostics
GDPR	General Data Protection Regulation
GHS	Global Health Security
GNI	Gross National Income

GOARN	Global Outbreak Alert and Response Network
GPMB	Global Preparedness Monitoring Board
HEV	Hepatitis E Virus
HMG	Her Majesty's Government
IASC	Inter-Agency Standing Committee
IATI	International Aid Transparency Initiative
ICAI	Independent Commission for Aid Impact
ICAN	Infection Control Africa Network
ICRC	International Committee of the Red Cross
IEDCR	Institute of Epidemiology, Disease Control and Research
IFRC	International Federation of the Red Cross
IHR	International Health Regulations
IOM	International Organization for Migration
IPC	Infection Prevention and Control
IPD	Institut Pasteur de Dakar
IPM	Institut Pasteur de Madagascar
IRC	International Rescue Committee
JEE	Joint External Evaluation
KCL	King's College London
KII	Key Informant Interview
KLFU	Kenema Lassa Fever Unit
LMICs	Low- and Middle-Income Countries
LSHTM	London School of Hygiene & Tropical Medicine
LTC	Lassa Treatment Centre
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MoH	Ministry/Ministries of Health
MOOC	Massive Open Online Course
MoPH	Ministry of Public Health
MRC	Medical Research Council
MSF	Médecins Sans Frontières
NAO	National Audit Office
NAPHS	National Action Plan for Health Security
NGO	Non-Governmental Organisation
NGS	Next Generation Sequencing
NIHR	National Institute for Health Research

NPHL	National Public Health Laboratory
NRL	National Reference Laboratory
ODA	Official Development Assistance
OH	One Health
PANDORA-ID-Net	Pan-African Network for Rapid Research, Response, Relief and Preparedness for Infectious Diseases Epidemics
PCR	Polymerase Chain Reaction
PE&IM	Performance Evaluation and Independent Monitoring
PERC	Partnership for Evidence-based Response to COVID-19
PHE	Public Health England
PHEIC	Public Health Emergency of International Concern
PHSM	Public Health and Social Measures
PMT	Project Management Team
PPE	Personal Protective Equipment
QA	Quality Assurance
RAG	Red Amber Green
RDT	Rapid Diagnostic Test
RKI	Robert Koch Institute
RST	Rapid Support Team
SARI ITC	Severe Acute Respiratory Infection Isolation and Treatment Centre
SEARO	WHO South East Asia Regional Office
SEEG	German Epidemic Preparedness Team
SitRep	Situation Report
SMT	Senior Management Team
SOP	Standard Operating Procedure
SSHAP	Social Science in Humanitarian Action Platform
STO	Short-Term Outcome
ToC	Theory of Change
ToR	Terms of Reference
TSC	Technical Steering Committee
TWG	Technical Working Group
UK-EMT	UK Emergency Medical Team
UIC	Unique Identifier Code
UK-PHRST	UK Public Health Rapid Support Team
UNICEF	United Nations Children's Fund
US CDC	United States Centers for Disease Control and Prevention
VfM	Value for Money

VHF	Viral Haemorrhagic Fever
WAHO	West African Health Organization
WASH	Water and Sanitation Hygiene
WASHFIT	Water and Sanitation for Health Facility Improvement Tool
WASSERN	West Africa Social Science Epidemic Response Network
WHO-AFRO	WHO Regional Office for Africa
WHO	World Health Organization

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Executive Summary

Background to the evaluation

UK-PHRST was formally launched in November 2016, as a partnership between Public Health England (PHE) and the London School of Hygiene & Tropical Medicine (LSHTM), with Oxford University and King's College London as part of the broader academic consortium.

UK-PHRST have a triple mandate to 'integrate outbreak response, innovative research to generate evidence on best practices for outbreak control, and capacity building for outbreak response in ODA-eligible countries'.

Through this mandate, UK-PHRST are expected to contribute to the UK's Global Health Security (GHS) priorities: that is, to countries' – in particular, lower- and middle-income countries' (LMICs') – capacity to successfully prevent, detect early and effectively respond to threats related to infectious disease outbreaks.

Itad has been contracted by UK-PHRST to conduct an external performance evaluation and independent monitoring (PE&IM) of the programme from inception in late 2016 until April 2021.

The purpose of the evaluation is to ensure independent monitoring and quality assurance of programme delivery, documentation of lessons learned, and robust tracking of results, providing assessment of the effectiveness of official development assistance (ODA) funds.

The PE&IM has consisted of two main phases:

A mid-point evaluation was conducted between September 2019 and August 2020, to generate learning and support adaptive management during the current phase of the programme.

An end-point evaluation that took place between September 2020 and April 2021 has been timed to capture as much implementation of the current phase as possible, and hence support accountability. Findings, conclusions and recommendations generated by this evaluation, however, are expected to be useful also in the design and implementation of future phases of the programme.

This is the revised end-point evaluation report, based on data collection and analysis carried out between September and November 2020, including 74 key informant interviews (KIIs) conducted with UK-PHRST and their stakeholders. The report has been revised upon

reception of feedback from UK-PHRST, and following a 'co-creation of recommendations' workshop that took place in February 2021.

The report presents findings, conclusions and recommendations from the three evaluation workstreams: Workstream 1 focusing on design, Workstream 2 on implementation and Workstream 3 on performance issues.





Evaluation findings

Workstream 1: Design – Model and Strategy

Appropriateness of the model

UK-PHRST's triple mandate is still valid and greater integration has been achieved in the last year across the three strands. There is broad agreement that the consortium model adds value towards improving outbreak response through bringing together complementary expertise, experiences and partnerships. On balance, in light of the significant efforts already made to improve internal collaboration and communication and of the advantages provided by the consortium model, maintaining the PHE-LSHTM equal partnership and adding collaboration with additional academic and public health institutions seems the right way forward.

Relevance and appropriateness of the strategic approach

UK-PHRST's activities predominantly respond to partners' requests, organically ensuring their relevance and alignment with partners' strategic plans. Additionally, UK-PHRST have made efforts to better align activities with the programme Theory of Change (ToC). In terms of supporting sustainable outcomes, capacity development (as a cross-cutting component) is perceived to be the most strategic and relevant aspect of the triple mandate. Yet a need to further refine and embed awareness of UK-PHRST's approach to this work remains. Activities around development and strengthening of successful, collaborative LMIC partnerships (with a focus at regional level) are also seen as key to increasing UK-PHRST's ability to contribute towards programme outcomes.



Workstream 2: Implementation – Delivery, Process and Partnerships

Progress in delivering activities and outputs

UK-PHRST-planned activities and outputs across the triple mandate have largely been achieved or exceeded, or are making good progress towards achievement. Despite some delays in the project's first four years, capacity development indicators are now on track against targets.

Appropriateness of the human resourcing model

UK-PHRST are considered a highly professional and experienced team, offering multidisciplinary expertise across the core pillars of outbreak response. While efforts to increase UK-PHRST's human resources have been made, the team remained overstretched in the last year of implementation due to retention issues, difficulties with hiring new staff given short-term funding, and challenges with accessing reservists. As a result, they did not have sufficient capacity to fully meet the demands without a high risk of burnout. Despite this, UK-PHRST have improved their ability to deliver across the triple mandate over time. The shift towards remote support brought about by COVID-19 helped to facilitate more integration across the triple mandate, but presented some challenges for all three components.



Appropriateness of the governance structure

Governance structures are appropriate overall, although some coordination challenges still remain. Since mid-point, the team have endeavoured to strengthen their governance and reporting mechanisms. The oversight and management of the research portfolio improved significantly with the development of a clearer strategic vision and streamlining of approval and review processes. The need remains, however, to further clarify accountability mechanisms for capacity development as a cross-cutting component.

Consortium partnership and internal communication

There is good collaboration across the different workstreams and organisational boundaries, and increasingly a sense of being unified as a team. COVID-19 and the shift to remote working

helped reinforce effective virtual communication practices independent of institutional affiliation or geographic location. Key reflections emerged as a result of challenges experienced during the collaboration with King's College London and Oxford University, which fed into plans to include a broader range of academic institutions to adequately counter research gaps across multiple disciplines in the next phase.

External communication

UK-PHRST recently scaled up external communication activities through novel platforms such as the UK-PHRST Knowledge Hub. At regional and country levels UK-PHRST communicated effectively with a wide range of stakeholders during deployments and research projects. However, there is limited evidence of how UK-PHRST dissemination of research findings at country level informs national policy and decision making, and a research dissemination and uptake strategy is yet to be developed.

UK-PHRST and other UK ODA health security programmes

UK-PHRST do not duplicate other UK ODA health security programmes at UK, regional or country levels, given their unique profile as a rapid response team offering support across the triple mandate.

UK-PHRST have made positive efforts to coordinate with other Her Majesty's Government (HMG) GHS programmes, especially at country level. There are several examples of how UK-PHRST collaborated with and aligned their activities to the PHE International Health Regulations (IHR) Strengthening project, the Foreign, Commonwealth and Development Office (FCDO) and World Health Organization (WHO) offices during deployments and research field visits. There is an opportunity to develop a more systematic approach for collaboration to maximise synergies and complementarity.

Coherence and collaboration at country, regional and global levels

UK-PHRST have taken a proactive role in coordinating activities with other partners, especially during bilateral deployments, which has helped prevent duplication and overlap between UK-PHRST and other programmes at regional and country levels. UK-PHRST have a strong partnership with the Global Outbreak Alert and Response Network (GOARN). The programme has also enhanced collaborative partnerships with a number of regional institutions, such as Africa Centre for Disease Control (CDC) and Nigeria CDC, especially during the COVID-19 pandemic.



Workstream 3: Performance – Results, Sustainability and Accountability

Progress against programme goals

There is evidence of the positive contribution of UK-PHRST, especially to short-term outcomes (STOs) on response and on capacity development. UK-PHRST work is likely to have made a positive difference to cholera and COVID-19 responses in Cox's Bazar (Bangladesh), as well as to Africa CDC's COVID-19 response, among others. There is also evidence of capacity having been developed as a consequence of UK-PHRST's interactions with Africa CDC, Nigeria CDC and Cox's Bazar. Evidence of UK-PHRST's research findings being applied by the team and partners to influence response and/or policymaking in LMICs remains to date limited, with the exception of research on Personal Protective Equipment (PPE) for Lassa Fever influencing Nigeria CDC Infection Prevention and Control (IPC) for Viral Haemorrhagic Fever (VHF) guidelines. While it is plausible that the

programme has contributed to intermediate and longer-term outcomes, there is insufficient evidence to express a definitive judgement at this stage, a challenge shared by many programmes.

Sustainability

Despite early signs of progress in this area, sustainability concerns have not yet been fully embedded in UK-PHRST's strategy or implementation plans. Prior challenges to sustainability still exist and are aggravated by the current HMG funding climate. Progress has been made on developing strategic partnerships, partly due to COVID-19 in 2020, which opened the way to more sustainable forms of engagement, including an increased focus on capacity development, the opportunity of longer-term engagement, and hybrid remote/in-person approaches. As for research, while UK-PHRST has made significant progress in creating and sharing Global Public Goods such as Massive Open Online Courses and research/tools made available on the Knowledge Hub, a greater emphasis on effective dissemination and a stronger link between research topics and response needs are required to maximise chances to contribute to sustainable results.

Value for money

Economy (Good): High-quality academic service providers were selected and contracted, with

recent contracts being structured to incentivise achievement of project milestones.

Efficiency (Good): Despite actual spending having been consistently below the level of intended spending, there has been strong performance against output indicators, suggesting that the project has been implemented more efficiently than anticipated. Limited use of reservists, however, has constrained efficiency.

Equity (Adequate): Gender equality, equity and human rights have been considered in the project design, although there is still limited evidence that this has been translated into implementation practices. There is, however, evidence of a greater appreciation among UK-PHRST staff of the importance of integrating these considerations in UK-PHRST's work.

Measuring of results

Monitoring, evaluation and learning (MEL) systems have been strengthened with support from the external evaluation team and through the work of a dedicated working group on learning. Operationalisation of new tools and processes is still ongoing.

Photo credits, pages ix–xi

Bangladesh: WHO Bangladesh/Tatiana Almeida
Nigeria: Louis Leeson/LSHTM

Evaluation conclusions

UK-PHRST and the triple mandate originated from the lessons and insights of the West Africa EVD outbreak of 2013 and 2016. It was designed to tackle the need for additional ‘research readiness’ and ‘expert readiness’ to strengthen UK and global response to epidemics in terms of speed and quality.

Four years on, the UK-PHRST model is still valid and its relevance has increased in the current situation and given the fact that integration between response, research and capacity development has intensified. The idea of combining disease outbreak response, research and capacity development in a readily deployable multidisciplinary team working in partnership with national and regional public health organisations has become even more relevant in today’s world, distraught by the COVID-19 pandemic. The idea is also increasingly aligned with current debates about the decolonisation of global health, especially given the enhanced focus on capacity development as a cross-cutting element.

In terms of ‘expert readiness’, the programme has been successful in establishing a highly professional and reliable team of experts, ready to deploy in 48 hours and offering cutting-edge technical expertise. In doing so, UK-PHRST have

developed positive relationships with GOARN and LMIC governments, who report improved speed and effectiveness of outbreak response when UK-PHRST are deployed.

Despite limited human resources which have overstretched the team and inevitably restricted what they have been able to achieve, the programme is on track to achieve all its outputs, with some signs of positive contribution to STOs related to outbreak response and improved LMIC outbreak response capacity. Little to no evidence was, however, available to demonstrate contribution to the STO on application of research findings, or to intermediate and long-term outcomes.

UK-PHRST have also been successful in establishing good partnerships with some national and regional-level institutions in charge of outbreak response such as Nigeria CDC and Africa CDC, but more can be done to leverage partnerships for more sustainable outcomes and integrate a more well-defined capacity development approach. COVID-19-related shift to more remote support in 2020 opened the way to more sustainable forms of engagement. The need, however, still remains for the programme to build on existing and new partnerships to complement its capacity

development offer, with a view to improving sustainability.

As for ‘research readiness’, the absence of a clear, overarching approach to research dissemination and uptake has hampered contribution to programme results related to the application of UK-PHRST research findings in response and policymaking. A research uptake and dissemination strategy which sets out how to further systematically strengthen the link between research topics/questions and the needs of outbreak response, and how to work with partners (including DHSC) at country, regional and global levels to promote the application of research findings, is yet to be drafted.

Despite considerable progress made in strengthening its MEL systems, more can be done to enhance learning and show contribution to higher-level results. UK-PHRST MEL systems have been strengthened through constructive engagement by UK-PHRST, but progress has taken time and the operationalisation of new tools and processes is still ongoing. This has somewhat limited the extent to which this end-point evaluation could assess contribution to outcomes.

Evaluation recommendations

This section presents six high-level recommendations. Following submission of the end-point evaluation report in January 2021, in the spirit of ‘Utilisation-Focused Evaluation’, the evaluation team facilitated a virtual co-creation workshop on 12 February 2021 with UK-PHRST SMT members and external stakeholders. The workshop aimed to foster intended users’ engagement and buy-in to the evaluation findings and recommendations, thereby maximising the chances of recommendations being useful and used.

The workshop involved a review of the priority evaluation findings and strategic implications, and interactive discussions on options for moving forward. These were then used by the evaluation team as an additional data point to frame the recommendations presented in this report. As such, while the recommendations are those of the independent evaluation team, and directly follow from the findings and conclusions presented in this report with no undue influence from UK-PHRST and its partners, it is intended that they reflect the views and priorities of the evaluation users.

These recommendations can be grouped into two categories, as summarised in **Figure 1**. The first three recommendations (‘act now’) are, in our view, the most critical to address as soon as possible. Recommendations 4-6 (‘continue and embed’) cover areas in which UK-PHRST have already made good progress in the right direction, but more can be done to maximise and embed improvements going forward.

Figure 1: Overview of recommendations

Act now 	Continue and embed 
<p>Recommendation 1 – Ensure sufficient capacity to adequately meet the demands of programme delivery and maximising successful outcomes across the triple mandate, by advancing recruitment plans, using reservists and FETPs where possible, and clearly articulating a request for more human resources in any future phase.</p> <p>Recommendation 2 – Deepen in-country networks and partnerships to achieve programme objectives (particularly in relation to sustainability) through an updated approach to partnerships.</p> <p>Recommendation 3 – Put greater emphasis on ensuring that research is used to inform decision making and to guide policies in LMICs, including by articulating and implementing a research uptake strategy and by further aligning research questions and the needs.</p>	<p>Recommendation 4 – Further define and embed UK-PHRST’s scope of work and ways of working, especially within capacity development, and improve partners’ awareness and understanding of UK-PHRST’s mandate through an effective communications plan.</p> <p>Recommendation 5 – Continue to strengthen and implement UK-PHRST’s MEL approach to maximise chances to contribute to desired outcome level results and to be able to demonstrate contribution at this level.</p> <p>Recommendation 6 – Retain lessons learned during COVID-19 through a ‘blended’ approach combining in-person and remote support.</p>

1 Introduction

The UK Public Health Rapid Support Team (UK-PHRST) commissioned Itad to conduct an external performance evaluation and independent monitoring (PE&IM) of the programme, from its inception in late 2016 until March 2021. The end-point evaluation took place between September 2020 and March 2021, following the mid-point evaluation conducted between September 2019 and August 2020.¹ This revised end-point evaluation report is based on the data collection and analysis work carried out between September and November 2020.

Due to travel restrictions in place to contain the spread of the COVID-19 pandemic, all data collection was carried out remotely, including interviews with 74 key informants. Interviewees comprised both members of UK-PHRST and its stakeholders, including consortium partners, the UK Department of Health and Social Care (DHSC), other parts of Her Majesty's Government (HMG), and other UK, international, regional and national stakeholders, including the World Health Organization (WHO), Ministries of Health in lower- and middle-income countries (LMICs), public health institutes and academic organisations.

The report is structured as follows:

- **Section 2** presents the evaluation's background, purpose, objective and scope, followed by an overview of Evaluation Questions (EQs), end-point data collection and analysis methods, as well as limitations and our approach to ethics.
- **Section 3** presents findings by each workstream in turn, grouped by EQs or sub-EQs.
- **Section 4** sets out our conclusions.
- **Section 5** sets out our recommendations.

The report has been revised upon reception of feedback from UK-PHRST and following a 'co-creation of recommendations' participatory workshop that took place in February 2021 with UK-PHRST and stakeholders from Public Health England (PHE), the London School of Hygiene and Tropical Medicine (LSHTM), and the UK Government's Global Health Security (GHS) Delivery Team.² Lessons learned (applicable to a broader range of similar projects and not specific to the particular intervention being evaluated) were not requested in the PE&IM Terms of Reference (ToRs) and are therefore not covered in this report.

A separate **Volume 2** presents the supporting annexes: the ToRs, the Evaluation Framework (with EQs and sub-EQs), a mapping of available evidence against its assumptions, the DHSC Global Health Security (GHS) Theory of Change (ToC), an updated evaluation team structure, a list of UK-PHRST activities across the triple mandate over the entire implementation period, four case studies (on UK-PHRST support to Africa CDC, Nigeria CDC, Cox's Bazar in Bangladesh and UK-PHRST remote support in 2020) and lists of people interviewed and documents consulted as part of the end-point evaluation.

2 Background and methodology

2.1 Background to the evaluation

UK-PHRST originated in response to the lessons and insights of the West Africa Ebola Virus Disease (EVD) outbreak. Between 2013 and 2016, an EVD outbreak killed more than 11,000 people, bringing '*a new level*

¹ The mid-point evaluation report was first submitted to UK-PHRST at the end of January 2020, and approved in August 2020. The long finalisation process was due to the time required to incorporate the recommendations after the co-creation workshop in February, as well as multiple rounds of feedback from UK-PHRST and the GHS Delivery Team, and availability of stakeholders involved. Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

² The GHS Delivery Team comprises the GHS programme team at the Department of Health and Social Care (DHSC) working in collaboration with the National Institute for Health Research (NIHR), who manage the research contract on behalf of DHSC.

of urgency to the issue of global health threats.³ A post-EVD report commissioned by the UK government and the then Department for International Development (DFID)⁴ identified a number of weaknesses in the response, including a lack of ‘research readiness’ (since EVD had not been prioritised as a disease, research on vaccines, treatments and diagnostics was originally lagging behind) and ‘expert readiness’ (an insufficient number of staff with the required expertise was readily available to be deployed at the onset considering the magnitude of the outbreak).⁵ A subsequent response review by the WHO raised the need for global rapid response capacity in order to prevent similar public health events from escalating.⁶ In response, WHO’s Health Emergencies Programme was launched in 2016, with reforms influenced by recommendations arising from the EVD outbreak.⁷ In the UK, the DHSC’s GHS Programme also began to evolve (see **Annex 4** for the HMG GHS ToC), and the UK government announced new research funding for infectious diseases – including £188 million to fight diseases with epidemic potential.⁸ At the 2015 G7 Conference, the UK government announced the mobilisation of £20 million of official development assistance (ODA) over five years to operationalise UK-PHRST, as part of a commitment to help build LMICs’ capacity to prepare for and respond to public health threats.

2.1.1 UK-PHRST

Formally launched in November 2016, UK-PHRST is a partnership between PHE and LSHTM, with Oxford University, and King’s College London (as consortium Mental Health Lead until November 2020) as part of the broader academic consortium.

The UK-PHRST’s triple mandate is to *integrate outbreak response, innovative research to generate evidence on best practices for outbreak control, and capacity building for outbreak response in ODA-eligible countries*. The aim of the triple mandate and consortium model is to utilise a multidisciplinary team to: i) improve the speed of outbreak response through effective deployment of a team of experts; ii) enhance the evidence base and thus improve the effectiveness of UK and global response efforts; and iii) provide relevant and effective capacity building to enhance the ability of LMIC-based stakeholders to prevent, detect and respond to outbreaks. UK-PHRST are now in the final year of their five-year funding cycle, looking ahead to the next phase of the programme. Against the backdrop of the global economic crisis caused by the COVID-19 pandemic, the UK government has provided a further year-long funding commitment for the UK-PHRST programme to March 2022.

As highlighted in our mid-point evaluation report, UK-PHRST is one of several organisations that support outbreak deployment, capacity development and research during outbreaks in LMICs. WHO frequently takes a leading role in coordinating activities during outbreaks through its coordinating mechanism, known as Global Outbreak Alert and Response Network (GOARN), especially for complex outbreaks or in insecure environments, where the risk and impact of outbreaks is often greatest. For these reasons, GOARN is one of the most important access points for UK-PHRST to deploy to outbreaks. Regional actors in Africa, such as Africa CDC, are playing an increasingly important role, and they are becoming important partners for UK-PHRST. Numerous other countries and agencies also operate in this area and the number of players is increasing. The US Centers for Disease Control and Prevention (US CDC) are perhaps the most active stakeholder in this sphere and work across the largest number of countries, although a multitude of other actors provide ongoing capacity development and/or short-term technical support related to outbreaks, including, for example, Médecins Sans Frontières (MSF)/Epicentre in the area of deployments.⁹ There are also numerous other actors and networks conducting research during outbreaks. These include

³ ICAI, 2018. The UK Aid Response to Global Health Threats. A Learning Review. Available at: https://icai.independent.gov.uk/wp-content/uploads/GHT-review_final.pdf

⁴ Ibid.

⁵ Ibid.

⁶ WHO, 2015. Ebola: Ending the current outbreak, strengthening global preparedness and ensuring WHO’s capacity to prepare for and respond to future large-scale outbreaks and emergencies with health consequences. Available at: https://apps.who.int/gb/ebwha/pdf_files/EBSS3/EBSS3_R1-en.pdf?ua=1&ua=1

⁷ Gostin LO, 2016; Mackey, 2016; WHO, UN, 2016.

⁸ IDC, 2018.

⁹ See the UK-PHRST Mid-Point Evaluation Report for full mapping of actors in the area.

the Coalition for Epidemic Preparedness Innovations (CEPI),¹⁰ the African Coalition for Epidemic Research, Response and Training (ALERRT)¹¹ and the Pan-African Network for Rapid Research, Response, Relief and Preparedness for Infectious Diseases Epidemics (PANDORA-ID-Net).¹² In addition to these global and regional stakeholders, when working in-country, UK-PHRST also inevitably engages with a wide range of local stakeholders, including ministries of Health (MoH), national public health agencies, hospitals, laboratories, universities and local non-governmental organisations (NGOs) and Civil Society Organisations (CSOs).¹³

2.1.2 UK-PHRST's Theory of Change

During inception, Itad collaborated with UK-PHRST to revise the programme's previously-existing ToC. The ToC diagram and associated assumptions have been collaboratively reviewed again over Q3 2020 to ensure that they accurately capture past and ongoing activities and the programme's intervention logic, with sufficient detail for use as the basis for evaluative judgement. The UK-PHRST ToC (see **Figure 2** below) explicitly emphasises the added value of UK-PHRST's triple mandate of outbreak response, research and capacity development, and the areas of overlap between these three focal areas.

At activity and output levels, the ToC outlines UK-PHRST's focus on formulating the research, response and capacity development plans, infrastructure, skills, relationships and tools needed to contribute to an improvement in both UK and LMIC capacity to respond quickly and effectively to outbreaks.

The programme's intermediate outcome ('UK and global response to epidemics improves in speed and quality') is connected with the longer-term outcomes of the broader DHSC GHS ToC, that is, to countries' (in particular LMICs') capacity to successfully prevent, detect early and effectively respond to threats related to infectious disease outbreaks (see **Annex 4**).

The programme ToC also outlines key contextual and causal assumptions that must hold in order for these outputs to lead to the desired short- and long-term outcomes (see **Annex 3** for a mapping of evidence collected against such assumptions).

2.2 Purpose and objectives of the evaluation

In line with the ToRs of this evaluation (**Annex 1**), the overall purpose of the PE&IM contract is to ensure that UK-PHRST are having the intended impact, by focusing on quality assurance and accountability and the facilitation of learning and adaptive management in order to improve programme decisions and performance.

To achieve this, the PE&IM team has fulfilled the following objectives:

- **Assess the model of UK-PHRST** and their novel combination of public health operational activity, research, and capacity development.
- **Examine the extent to which UK-PHRST complement other UK ODA-GHS programmes**, including PHE's IHR (International Health Regulations) Strengthening Programme, in partner countries and regions, and how UK-PHRST support coherent national and international health activities on preparedness and response.
- **Determine the extent to which UK-PHRST work as a functional partnership and consortium.**
- **Assess the outputs and outcomes of UK-PHRST activities**, including utilisation, sustainability and the pathway to impact through the ToC.
- **Generate additional evidence and insights.**
- **Support UK-PHRST to inform, facilitate and disseminate learning** from monitoring, evaluation and learning (MEL).

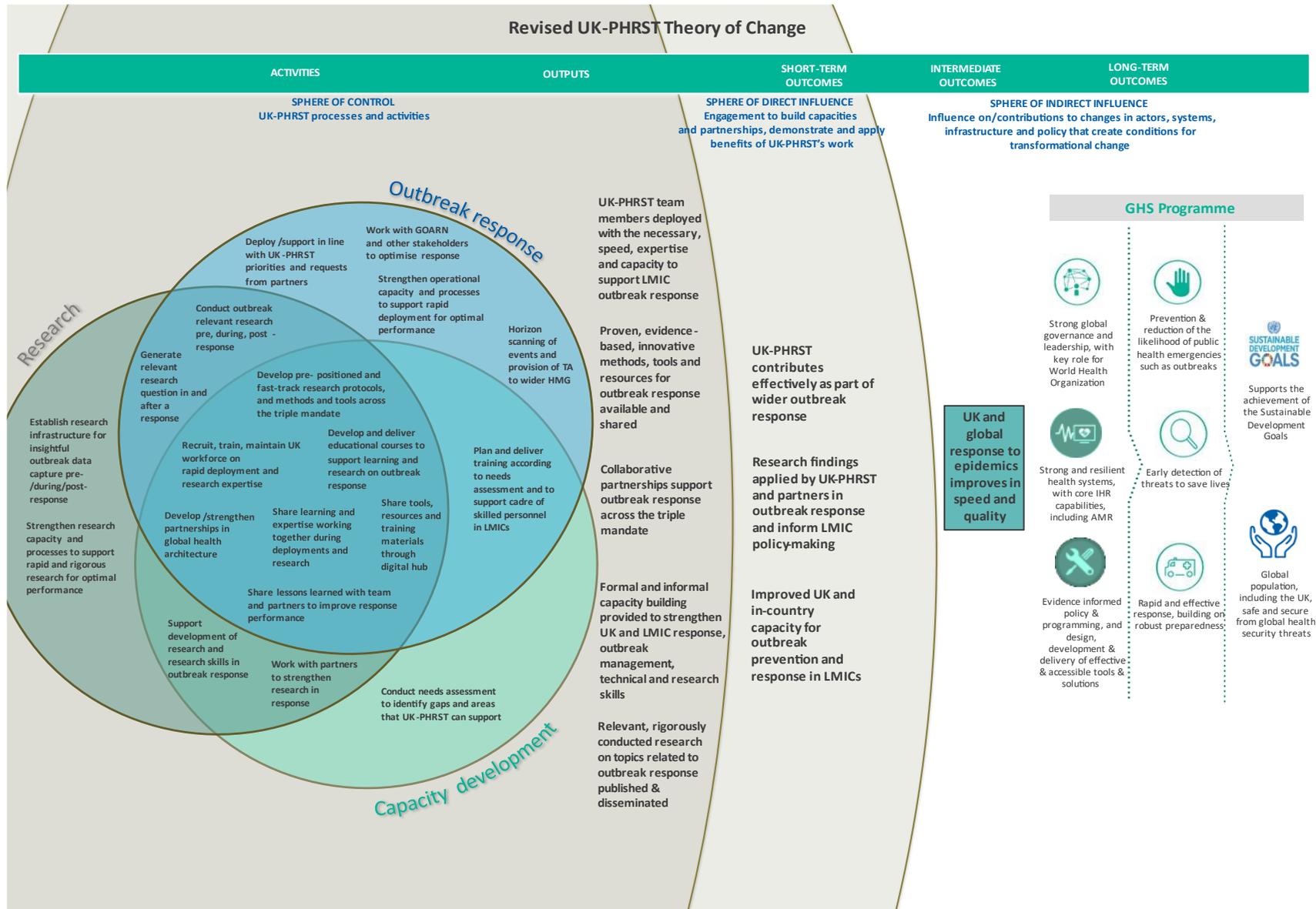
¹⁰ <https://cepi.net/>

¹¹ <https://www.alerrt.global/>

¹² <https://www.pandora-id.net/>

¹³ UK-PHRST, 2018. Annual Review.

Figure 2: UK-PHRST programme Theory of Change



The PE&IM has consisted of two main phases:

- A **mid-point evaluation**, conducted between September 2019 and August 2020, timed to generate learning and support adaptive management during the current phase of the programme.
- An **end-point evaluation** that took place between September 2020 and April 2021, timed to capture as much implementation of the current phase as possible, and hence support accountability. Findings and recommendations generated by this evaluation, however, are expected to be useful also in the design and implementation of future phases of the programme.

The anticipated **primary evaluation users** of the evaluation are UK-PHRST staff at all levels, but particularly the Senior Management Team (SMT), and UK-PHRST Project Board Members. These stakeholders have been regularly involved during both mid- and end-point evaluations, in a way that is expected to maximise utility of findings and recommendations generated in line with the principle of 'Utilisation-Focused Evaluation', developed by Michael Quinn Patton,¹⁴ which stipulates that an evaluation should be judged on its usefulness to its intended users. They have been involved, for example, in the initial ToC workshop as well as in a workshop to refresh the ToC ahead of the start of the end-point evaluation; they have participated to the co-creation of recommendations¹⁵ at mid- and end-point; they have been invited to review and comment on all reports, including the inception report, the mid-point evaluation report and this end-point evaluation report, to allow them to check for factual accuracy and gauge the degree to which they agreed with findings based on presented evidence.

Other primary users may include non-UK-PHRST members of the consortium organisations (wider PHE, wider LSHTM, and other academic partners), and the GHS Delivery Team. Evaluation findings and recommendations may also be shared with **secondary users**, including wider UK-PHRST stakeholders at global, regional and national levels, including those who have not previously worked with UK-PHRST. As per our inception report, we will support UK-PHRST to facilitate and disseminate learning based on the needs and preferences of different audiences. We will discuss a dissemination plan and any further ways of presenting information from the evaluation following the co-creation of recommendations.

2.3 Scope of the evaluation

Based on the objectives outlined above, the evaluation is focused on nine overall EQs, which fall within three broad workstreams. These form the basis of our Evaluation Framework and the structure of this report.

Workstream 1 ('Design') focuses on UK-PHRST's integrated model, strategy and consortium approach.

Workstream 2 ('Implementation') presents evidence on UK-PHRST's delivery, processes and partnerships.

Workstream 3 ('Performance') deals with the programme's contribution to outcomes, value for money (VfM), sustainability prospects and measurement of results.

EQs under each workstream are presented in **Section 2.4**.

This end-point evaluation report seeks to express a summative judgement on **the entire implementation period of the programme** until November 2020, using the mid-point evaluation report as an additional data source and focusing on any visible changes in UK-PHRST design, implementation and performance since then. End-point interviews were carried out in October and November 2020. Given the largely responsive nature of UK-PHRST's work, the **geographic focus** has been dependent on UK-PHRST's work with national, regional and international partners. Given the time and resources available, we had to focus our Contribution Analysis on UK-PHRST's work with Africa CDC, Nigeria CDC and in Cox's Bazar in

¹⁴ Patton, 2013. Available at: https://wmich.edu/sites/default/files/attachments/u350/2014/UFE_checklist_2013.pdf

¹⁵ The rationale is that recommendations co-created through a participatory multi-stakeholder consultation are more likely to be seen as relevant and feasible, and hence more likely to be followed through.

Bangladesh specifically (see **Section 2.5** for further information on this methodology). A full list of the activities carried out by UK-PHRST since its inception and reviewed as part of this evaluation can be found in **Annex 6**.

2.4 Evaluation questions

The overall EQs agreed during the inception phase are presented in **Table 1** (below). **Annex 2** provides our Evaluation Framework, which covers the EQs, sub-EQs, sources of evidence, judgement criteria and the analytical methods used to answer each question. Findings have been presented in **Section 3** by EQ or group of sub-EQs, preserving the same structure as the mid-point evaluation report.

Table 1: Evaluation questions by workstream

	DESIGN (MODEL AND STRATEGY)
1. How appropriate is UK-PHRST’s integrated model and consortium approach in contributing to improved outbreak response?	
2. To what extent are UK-PHRST activities relevant, strategic and appropriate in relation to UK-PHRST programme goals?	
	IMPLEMENTATION (DELIVERY, PROCESS AND PARTNERSHIPS)
3. How successfully has UK-PHRST been operationalised?	
4. To what extent do UK-PHRST complement or duplicate other UK ODA health security programmes in partner countries?	
5. To what extent have UK-PHRST supported coherent and collaborative national and international health activities on preparedness and response?	
	PERFORMANCE (RESULTS, SUSTAINABILITY AND ACCOUNTABILITY)
6. What contribution are UK-PHRST’s deployment, research and capacity building outputs making to achieving programme outcomes?	
7. Are programme outputs and outcomes likely to be sustained?	
8. To what extent have UK-PHRST followed the National Audit Office (NAO) principles of economy, efficiency and effectiveness and demonstrated VfM?	
9. Are UK-PHRST capturing the right data to measure results and ensure transparency and how can this be improved?	

2.5 Evaluation design

In line with the inception report, we have conducted a mixed-methods theory-based evaluation. We have used the UK-PHRST ToC as a framework to explore how the programme is functioning to generate planned outputs and contribute to desired outcomes.

2.5.1 Data collection methods

The end-point evaluation used the following data collection methods:

- **Review of existing secondary data:** The team carried out a comprehensive and structured review of UK-PHRST documents (including data collected by UK-PHRST on implementation of their activities and lessons learned) and various external secondary data sources including many sourced independently by the evaluation team to: i) establish what has happened in relation to UK-PHRST implementation; and ii) systematically extract relevant evidence from these documents to answer each EQ. As mentioned above, the mid-point evaluation report¹⁶ has been reviewed as an additional data point. **Annex 12** provides a full list of the documents reviewed as part of the end-point evaluation.
- **Key informant interviews (KIIs):** Interviews were conducted with 74 key informants at global, regional and country levels, a quarter of whom were from LMIC partners. These KIIs used pre-tested interview guides tailored by category of stakeholder. The sample was selected purposefully, in collaboration with UK-PHRST, in order to cover the full breadth of partners and stakeholders the programme has interacted with, and focusing on stakeholders with greater and more recent interactions, in order to maximise the richness of interview data. Categories included: UK-PHRST management, core deployable team, country-level stakeholders, regional/global-level stakeholders, reservists/FETP Fellows, HMG stakeholders and other GHS experts. A full list of the stakeholders interviewed as part of the end-point evaluation is provided in **Annex 11**. See **Section 2.6** on limitations around the number of KIIs conducted.
- **Meeting and workshop observations:** Five stakeholder meetings or workshops were observed: After-Action Review (13 January 2021),¹⁷ Technical Steering Committee (TSC) meeting (8 December 2020), Project Board Meetings (3 June 2020, 2 December 2020) and webinar on COVID-19 support (6 October 2020).
Case studies: Three geographic case studies (on Bangladesh/Cox's Bazar, Nigeria and Africa CDC) and one thematic case study (on remote working) were conducted using a combination of secondary document review and KIIs. Case studies were purposefully selected based on the countries where UK-PHRST had provided the most significant resource inputs over the course of the programme to date, and in particular since the mid-point evaluation took place.

Country visits were originally envisaged as part of this phase of the evaluation, however, given travel restrictions and health risks linked to the COVID-19 pandemic, the evaluation team agreed with UK-PHRST in Q3 2020 that all end-point data collection would happen entirely remotely. Information sources and their contributions were independent of other parties with an interest in the evaluation. The evaluation team was able to work freely and without interference.

2.5.2 Data analysis and triangulation methods

To analyse and thematically code data from the above sources, a comprehensive coding tree within the qualitative analysis software 'Dedoose' was used. This enabled a comprehensive consideration of all relevant data collected by the evaluation team, and minimised the potential biases previously outlined.

Supplementary data analysis techniques included:

- **Contribution Analysis:**¹⁸ While this had not been possible during the mid-point evaluation, given the limited implementation period at that stage, as part of the end-point evaluation we have been able to conduct Contribution Analysis to answer EQ6. As this methodology needs to

¹⁶ Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

¹⁷ This event is outside the data collection period for the end-point evaluation but we have done our best to integrate observations from the AAR into this report.

¹⁸ Contribution Analysis is a theory-based approach to evaluation developed by John Mayne in the early 2000s, which recognises that effects are produced by several causes at the same time, and demonstrates why and how a programme has made a difference.

be applied to an observable change or sets of changes, we focused our analysis on three main cases, chosen in liaison with UK-PHRST. Through our case study work, we built three ‘contribution stories’ on UK-PHRST’s work with Africa CDC (**Annex 7**), Nigeria CDC (**Annex 8**) and Cox’s Bazar in Bangladesh (**Annex 9**). As part of our broader analysis, however, we also examined evidence of contribution from other contexts.

- **VfM analysis:** VfM analysis based on DFID’s 4Es framework¹⁹ (Effectiveness, Efficiency, Economy and Equity) was integrated into the evaluative work to answer EQ8. Related findings have been summarised under **Section 3.3.5**.

All evidence was then triangulated across data sources and stakeholder groups (including through an internal analysis workshop), and the strength of evidence assessed based on the level of triangulation that was possible within each area of analysis. **Table 2** (below) presents our approach to ranking the strength of evidence, which is used throughout the findings section of this report. Where views of different groups diverged on a particular topic, we have endeavoured to make this explicit.

Table 2: Strength of evidence for UK-PHRST monitoring and evaluation

Rank	Justification
1	Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.
2	Evidence comprises multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources (limited triangulation) of decent quality but that are perhaps more perception-based than factual.
3	Evidence comprises few data sources across limited stakeholder groups (limited triangulation) and is perception-based, or generally based on data sources that are viewed as being of lesser quality.
4	Evidence comprises very limited evidence (single source) or incomplete or unreliable evidence.

The full evaluation design, data collection and analysis methods, as well as agreed departures from the ToRs, are presented in the inception report. **Annex 5** presents an updated team structure to reflect team changes since inception.

2.6 Limitations

Table 3 (below) presents limitations experienced during the end-point evaluation phase, along with mitigation strategies applied.

Table 3: Limitations and mitigation strategies

Limitation	Mitigation strategies/Impact for the evaluation
<p>Difficulties were experienced in arranging interviews with a number of key informants. Securing interviews with busy global, regional and national stakeholders proved challenging, even more than at mid-point, due to many key informants being part of the COVID-19 response in their respective countries and organisations – in particular HMG, WHO, UN and regional public health body-level stakeholders. Only a quarter of KIIs were from UK-PHRST’s LMIC partners.</p>	<p>Despite these challenges, 74 stakeholders were interviewed during this phase, out of a target range of 70–100 stakeholders. These KIIs generated rich insights covering all three workstreams; stakeholders were, in general, representative of all relevant groups; and evidence from KIIs was complemented by evidence from document reviews and often in line with evidence collected during the mid-point evaluation: we are therefore satisfied with the evidence we could gather despite the challenges. When evidence is particularly weak in some areas (such as the case of unintended consequences or how UK-PHRST, together with other HMG programmes, have engaged with non-HMG partners, for example), we have flagged that through our strength of evidence rating system.</p>
<p>The UK-PHRST MEL framework was not, until recently, adequately capturing changes at the outcome or impact level. As we will see in Section</p>	<p>Even though the team only received a first draft of the completed spreadsheet on 11 January 2021, after the analysis workshop had already happened (on 3–4 December 2020) and two rounds of quality assurance</p>

¹⁹ DFID, 2011. DFID’s Approach to Value for Money (VfM). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/49551/DFID-approach-value-money.pdf

<p>3.2.1, this framework has been revised in collaboration with Itad, but the evaluation team has received a completed copy of the revised monitoring spreadsheet only after our data collection and analysis period had officially ended.</p>	<p>(QA) on the report had already taken place, the team has done whatever possible to incorporate this information <i>ex post</i>. Evidence of contribution to outcomes, however, is still not fully captured in the version we have received. Thanks to our Contribution Analysis (CA), however, we have been able to collect evidence of plausible contribution to short-term outcomes (STOs) in the three case study contexts.</p>
<p>Ongoing remote support during the end-point evaluation period created fewer opportunities for reflection on UK-PHRST activities, and reduced the number of end-of-mission reports available for analysis.</p>	<p>This limitation was mitigated by the team observing the After-Action Review (AAR) meeting that took place in January 2021. The meeting date fell outside our data collection window for the end-point evaluation; nonetheless, the team has made efforts to integrate as much evidence from this AAR meeting as possible into this report.</p>
<p>There was a potential risk of bias in the selection of key informants and of case studies, as key informants to be interviewed and case studies were selected in collaboration with UK-PHRST. These selections were made based on where the programme had provided most support, especially in recent years (to counter possible recall bias). This may have led to respondents to be overly positive about the programme achievements, for example in the hope of support continuing.</p>	<p>While key informants and possible case study topics were selected in collaboration with UK-PHRST, the evaluation team exercised their independent judgement and requested the contact details of additional stakeholders when deemed necessary. At the beginning of interviews, complete confidentiality, the independence of the evaluation team and the (partly) formative nature of the exercise were emphasised, in order to elicit honest views from interviewees. Findings from KIIs were triangulated with findings from document review.</p>
<p>COVID-19 removed the opportunity for in-person interviews and observations. As the end-point evaluation was conducted entirely remotely due to COVID-19, data was collected primarily through remote key informant interviews and document review. COVID-19 removed opportunities for in-person interviews, where greater detail and nuance could otherwise have been gathered, as well as in-person observation and longer or repeated interviews.</p>	<p>While the evaluation team endeavoured to maximise remote KII opportunities, drawing upon extensive experience in remote data collection pre-dating COVID-19, the richness of insights and opportunities for iteration have inevitably been reduced. This limitation was mitigated by i) a thorough and structured document review to triangulate findings from KIIs, ii) rigorous assessment of strength of evidence and transparency about areas where evidence was weaker, iii) a collective analysis process to triangulate findings across different team members involved in the data collection and analysis process and iv) using the mid-point evaluation report as an additional data point.</p>

These limitations affected our Contribution Analysis (applied to answer EQ6) in particular. Given the remote nature of our KIIs as well as the fact that key stakeholders were very busy, for example, we could not conduct Contribution Analysis iteratively (e.g. through repeated KIIs) nor interview external stakeholders (beyond UK-PHRST's immediate partners) to strengthen evidence on other actors' contribution vis-à-vis UK-PHRST's. Moreover, as mentioned under **Section 2.3**, time and resources available meant that we had to concentrate our Contribution Analysis on three main 'cases'. Nevertheless, the case studies have managed to capture sufficiently rich evidence of positive contribution, especially to STO 1 (on response) and STO 3 (on capacity development) (see **Section 3.3.1** and **Annexes 7-9**).

Establishing plausible contribution to higher-level programme results (i.e. intermediate and long-term outcomes) remains, however, very challenging. It is notoriously challenging to establish contribution at this level in most ToCs for most programmes. This is even more difficult in the case of UK-PHRST, for a number of reasons:

- It is very hard to measure changes at this level globally, to then assess UK-PHRST's contribution to those changes.
- It is challenging to disentangle the exact contribution made by UK-PHRST from other actors' contributions, given the size and nature of UK-PHRST interventions and the way in which deployed teams typically operate as part of a broader country/partner response.
- Evidence of contribution to outcomes is still not fully captured by the programme MEL framework. For instance, insufficient evidence is currently available to measure how different audiences are accessing and using information and research findings disseminated by UK-PHRST and hence the impact of UK-PHRST research findings that are made available on the Knowledge Hub and learning that is shared through the massive open online courses (MOOCs) on outbreak response, guidelines and policies worldwide.
- The relatively short implementation time to date.

2.7 Ethics

This evaluation does not focus on any primary beneficiaries of UK-PHRST's work (i.e. populations affected by disease outbreaks). As a result, the methodology and associated data collection instruments and processes do not explicitly take into account concerns around gender, age, ethnicity, disability, caste, religion, geographic location, ability, socio-economic status and hard-to-reach groups, as no serious ethical concerns were deemed relevant in this context. However, all interviewees have been selected without discrimination on the basis of any of the above factors, and key informants interviewed are representative of the full spectrum of stakeholders involved in the evaluation. Moreover, issues related to UK-PHRST's approach to gender equality, equity and human rights are dealt with under equity (see **Section 3.3.5.4**).

The evaluation adheres to nine Itad ethical principles that draw on those of DFID,²⁰ the UK Data Archive²¹ and the Economic and Social Research Council (ESRC).²²

These are:

1. Independence and impartiality of the researchers.
2. Avoiding harm.
3. Child protection.
4. Treatment of participants.
5. Voluntary participation.
6. Informed consent.
7. Ensuring confidentiality.
8. Data security.
9. Sharing of findings.

Applying these ethical principles to this evaluation has meant that the main focus has been on principles 6–8, which cover the access, consent, confidentiality and storage of datasets from UK-PHRST and secondary sources. Our key informant guides have been designed to ensure that prior, informed consent (as well as permission to record, where applicable) has been obtained from all key informants prior to any interview taking place. All evaluation team members have been fully sensitised to the importance of gaining informed consent prior to KIIs, offering the option not to participate (or to stop the KII at any point), and providing information on the purpose of the interview and evaluation, including how informants' contributions would be used.

All information gathered from participants was anonymised, with stakeholders' names removed from transcripts and replaced by a Unique Identifier Code (UIC). UK-PHRST did not require Itad to arrange for access to suitably anonymised primary data by external parties, but this could be organised if requested. The Project Manager has been responsible for ensuring that all KII recordings and notes are stored on secure data servers, and that only authorised evaluation team members have access to these recordings, in line with European Union (EU) General Data Protection Regulation (GDPR) guidelines. The Project Manager will ensure that this data will be deleted from our servers as soon as no longer needed.

²⁰ DFID, 2011. DFID ethics principles for research and evaluation. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67483/dfid-ethics-prcpls-rsrch-eval.pdf

²¹ UK Data Archive, 2021. Available at: <https://www.ukdataservice.ac.uk/manage-data/legal-ethical.aspx>

²² ESRC, 2015. ESRC Framework for research ethics. Available at: <https://esrc.ukri.org/files/funding/guidance-for-applicants/esrc-framework-for-research-ethics-2015/>

3 Evaluation findings

The evaluation findings can be navigated by workstream and evaluation question, using **Table 4**, below:

Table 4: Navigation table for workstreams and evaluation questions

Workstream	Theme	Evaluation questions
<u>Workstream 1: Design – Model and Strategy</u>	Appropriateness of the triple mandate and consortium approach	<p><u>EQ1 How appropriate is UK-PHRST’s integrated model and consortium approach in contributing to improved outbreak response?</u></p> <ul style="list-style-type: none"> EQ1.1 To what extent have UK-PHRST met their mandate of integrating outbreak response, research and capacity building functions? EQ1.2 What are the advantages/disadvantages/value added of bringing the three functions and institutions together?
	Relevance and appropriateness of UK-PHRST’s strategic approach	<p><u>EQ2 To what extent are UK-PHRST activities relevant, strategic and appropriate in relation to UK-PHRST programme goals?</u></p> <ul style="list-style-type: none"> EQ2.1 Are the processes in place for prioritising/determining activities undertaken appropriate? EQ2.2 Are activities: a) necessary and b) sufficient to contribute to programme goals? EQ2.3 What assumptions underpin the intervention logic and have they been upheld? EQ2.4 Are activities aligned to IHR/Joint External Evaluation (JEE)/other relevant national and international policies?
<u>Workstream 2: Implementation</u>	Progress of UK-PHRST in delivering activities and outputs	<p><u>EQ3 How successfully has UK-PHRST been operationalised?</u></p> <ul style="list-style-type: none"> EQ3.1 To what extent have planned programme activities been implemented and programme outputs achieved?
	Appropriateness of the human resourcing model and balancing of competing demands	<ul style="list-style-type: none"> <u>EQ 3.2 Is the human resourcing model appropriate in terms of capacity, expertise and ability to effectively deliver across the triple mandate?</u> EQ 3.3 Are research plans sufficiently flexible for research to stay on course despite deployments?
	Appropriateness of the governance structures, including funding arrangements and reporting mechanisms	<ul style="list-style-type: none"> <u>EQ3.4 How appropriate are the governance structures of this model, including funding arrangements and reporting, and how could they be strengthened?</u>
	Consortium partnership and internal communication	<ul style="list-style-type: none"> <u>EQ3.5 To what extent do UK-PHRST work as a complementary and coordinated partnership between the consortium partners?</u> EQ3.6 How effective are internal communication processes within the consortium and how can they be improved?
	External communications	<ul style="list-style-type: none"> <u>EQ3.7 To what extent do UK-PHRST effectively externally communicate their activities and impact?</u>
	UK-PHRST and the UK ODA health security programme landscape	<p><u>EQ4 To what extent do UK-PHRST complement or duplicate other UK ODA health security?</u></p> <ul style="list-style-type: none"> EQ4.1 How effective are the mechanisms in place in the UK and at country level to ensure a coordinated/ complementary UK response? EQ4.2 In what ways have UK-PHRST augmented, complemented or duplicated pre-existing arrangements for deployment from the UK and other UK ODA-GHS programmes in partner countries?
	Coherence and collaboration at country, regional and global levels	<p><u>EQ5 To what extent have UK-PHRST supported coherent and collaborative national and international health activities on response?</u></p> <ul style="list-style-type: none"> EQ5.1 How effective is UK-PHRST’s external engagement with key strategic health actors nationally, regionally and globally? EQ5.2 How effective is the joint UK-PHRST/DHSC/DFID/HMG engagement with WHO HQ, GOARN and WHO-AFRO, and how could this be improved? EQ5.3 How effective are UK-PHRST’s working relationships with GHS programmes from other organisations and how could they be improved? EQ5.4 Does the work of UK-PHRST complement or duplicate similar initiatives from other countries/organisations?

<u>Workstream 3: Performance</u>	Progress against programme goals	<p><u>EQ6 What contribution are UK-PHRST’s deployment, research and capacity building outputs making to achieve programme outcomes?</u></p> <ul style="list-style-type: none"> EQ6.1 To what extent have programme goals (desired outcomes and impact) been achieved? EQ6.2 How have UK-PHRST contributed to, or how are they likely to contribute to, these outcomes and intended impact? EQ6.3 What evidence is available to suggest unintended consequences and results beyond the logframe indicators? EQ6.4 What impact have contextual factors had on programme results?
	Sustainability	<p><u>EQ7 Are programme outputs and outcomes likely to be sustained?</u></p> <ul style="list-style-type: none"> EQ7.1 Were appropriate sustainability aspects embedded into the UK-PHRST programme design? EQ7.2 What evidence is there that UK-PHRST short-term scoping research projects have led to long-term research collaborations between UK and other partners? EQ7.3 To what extent are the project outcomes likely to continue after the project?
	Value for money	<p><u>EQ8 To what extent have UK-PHRST followed the NAO principles of economy, efficiency and effectiveness and demonstrated VfM?</u></p> <ul style="list-style-type: none"> EQ8.1 Have inputs (e.g. staff, consultants, raw materials and capital) of an appropriate quality been purchased at the best possible price? EQ8.2 What is the relative cost of a readily deployable core team (costs including salaries, training, occupational health and backfilling reservists) compared with the costs of hiring external consultants? EQ8.3 To what extent did actual spending deviate from the intended spending? EQ8.4 (EQ3) How successfully has UK-PHRST been operationalised? EQ8.5 (EQ1) How appropriate is UK-PHRST’s integrated model and consortium approach in contributing to improved outbreak response? EQ8.6 (EQ6) What contribution are UK-PHRST’s deployment, research and capacity building outputs making to achieve programme outcomes? EQ8.7 What is UK-PHRST’s impact as regards gender equality, equity and human rights? EQ8.8 (EQ7) Are programme outputs and outcomes likely to be sustained?
	Measuring of results and transparency	<p><u>EQ9 Are UK-PHRST capturing the right data to measure results and ensure transparency, and how can this be improved?</u></p> <ul style="list-style-type: none"> EQ9.1 Is UK-PHRST’s current ToC measuring the right things to ensure that programme outcomes are captured? How can it be strengthened? EQ9.2 What evidence of transparency is available? EQ9.3 Are suitable M&E systems in place to adequately capture results and how can they be improved?

3.1 Workstream 1: Design

This section explores the design of UK-PHRST, with an overview of its origins and rationale, followed by an assessment of the appropriateness of the model, the triple mandate approach, and the strategic approach that underpins its implementation.

3.1.1 Appropriateness of the triple mandate and consortium approach

EQ1 How appropriate is UK-PHRST’s integrated model and consortium approach in contributing to improved outbreak response?

EQ1.1 To what extent have UK-PHRST met their mandate of integrating outbreak response, research and capacity building functions?

EQ1.2 What are the advantages/disadvantages/value added of bringing the three functions and institutions together?

High-level finding: EQ1	
<p>UK-PHRST's triple mandate model is considered by a majority of stakeholders as innovative and appropriate. It has the potential to contribute to improved and more sustainable outbreak response capacity, largely through its focus on capacity development. Integration across the triple mandate has been moderately successful and has increased over the final year of implementation, with several examples of deployments (in person and/or remote) where all three areas were operationalised. Full integration is seen as especially advantageous to achieving outcomes, but not necessary or realistic at all times.</p> <p>The consortium model is broadly endorsed across stakeholder groups and is seen as appropriate to contributing to improving outbreak response. It has provided added value through complementary expertise, experiences and partnerships that support operationalisation of the triple mandate as well as innovation and learning.</p>	 <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 1.1: The approach of three interwoven strategies, combining outbreak response deployments with research and capacity development, is seen as innovative and appropriate. There is broad support across all stakeholder groups for the UK-PHRST model, and wide agreement that it is valuable to work across the triple mandate. Overall, the model is seen as pioneering and capable of influencing the outbreak research agenda globally and strengthening countries' ability to respond quickly and effectively. The triple mandate model (particularly the capacity development component)²³ is also understood to improve the chances for sustainability of contributions to outcomes over the medium to long term, especially for outcomes related to LMICs' capacity to prepare for and respond to future outbreaks. However, the strategies framing the actual implementation of the triple mandate continued to evolve throughout the programme implementation period, which has to some extent limited our ability to make a summative judgement on the effectiveness of the triple mandate model, as we could not observe the effect of such strategies being operationalised over a substantial amount of time (see **Section 3.1.2**).

Finding 1.2: Overall, UK-PHRST have been moderately successful in integrating activities across the triple mandate, particularly in the last year of implementation. Many stakeholders, however, see full integration as unrealistic and/or unnecessary. At the time of the mid-point evaluation, integration across the triple mandate was limited, with limited team capacity to work across it due to workload, timeframe and the nature of most deployments. As explored in more detail under Workstreams 2 and 3 and in the Africa CDC, Nigeria CDC and Cox's Bazar, Bangladesh case studies (see, respectively, summaries in **Section 3.3.1** and **Annex 7, Annex 8** and **Annex 9**), the final year of implementation saw several additional and successful examples of deployments (in person and/or remote) where all three areas were operationalised. Notwithstanding these positive examples, UK-PHRST and HMG stakeholders clearly outlined the multiple operational challenges which rendered full integration of triple mandate activities unrealistic for every intervention. Key constraints were perceived to be the team's capacity and the duration of deployments (explored in detail in **Section 3.1.1**). An even broader cross-section of stakeholders saw full integration in every intervention as unnecessary, while at the same time forming a consensus that activities encompassing only one area of the triple mandate (for example, MOOCs) are not necessarily in line with overall UK-PHRST programme outcomes.

Finding 1.3: The consortium model is seen as appropriate and strongly supportive of improving outbreak response. The primary advantage of the consortium model is the way it brings together and

²³ At the time of the mid-point evaluation, the UK-PHRST team were using the phrase 'capacity building', but over the course of 2020 this was reframed as 'capacity development', so this is the term we have decided to use throughout the end-point evaluation report.

develops outbreak response specialists across different disciplines effectively. It also provides the team with an ability to capitalise on existing organisational partnerships with LMIC partners. The consortium model is seen by all stakeholder groups as bringing together valuable, complementary expertise and different practical experiences from the different institutions. This is seen as a valuable way of sharing different perspectives and learning. Many see this as a key factor which supports development of new and innovative tools with the potential to strengthen the programme's contribution to desired outcomes.²⁴ The increase in opportunities during the final year for the deployment of the Core Deployable Team (CDT) as a single, multidisciplinary team to a single outbreak has provided further evidence for the benefits of the model in terms of contributing towards desired outcomes (see Africa CDC case study, **Annex 7**, for a specific example of this, and **Section 3.2.2** for further discussion on the human resource model).

The model also provides the team with broader access to existing connections and projects in LMICs. This supports operationalisation of the triple mandate and associated activities. The consortium partners' pre-existing infrastructure, partnerships, and connections overseas provided a significant advantage particularly during UK-PHRST's early activities, and were the foundation of their most successful partnerships, for example with academic and government institutions in Sierra Leone²⁵ and Nigeria CDC (see Nigeria CDC case study, **Annex 8**).

Finding 1.4: The fact that strategies framing the actual implementation of the triple mandate continued to evolve throughout the programme implementation period has, to some extent, limited our ability to make a summative judgement on the effectiveness of the triple mandate model. At the time the mid-point evaluation data collection was conducted, strategies for delivery of the programme were still under revision.²⁶ Due to the reactive nature of the programme (largely based on partners' requests), coupled with a long set-up phase and limited human resources, a strengthened research and capacity building strategy, for example, came about only in June 2019 (more than halfway through the programme lifecycle).²⁷ As we will see in **Section 3.1.2**, UK-PHRST have kept strengthening their strategies, systems and processes during the last year of implementation. Some strategies, such as an overarching UK-PHRST partnership strategy or a research uptake and dissemination strategy, however, still remain to be developed.²⁸ The fact that these strategies have not been in place or have not been implemented for most of the programme lifecycle has limited our ability to observe the effect of such strategies being operationalised over a substantial amount of time, and therefore limited our ability to assess the overall effectiveness of the model (see **Section 3.3.5.3** on Effectiveness).

3.1.2 Relevance and appropriateness of UK-PHRST's strategic approach

EQ2 To what extent are UK-PHRST activities relevant, strategic and appropriate in relation to UK-PHRST programme goals?

EQ2.1 Are the processes in place for prioritising/determining activities undertaken appropriate?

EQ2.2 Are activities: a) necessary and b) sufficient to contribute to programme goals?

EQ2.3 What assumptions underpin the intervention logic and have they been upheld?

EQ2.4 Are activities aligned to IHR/Joint External Evaluation (JEE)/other relevant national and international policies?

²⁴ As explored later, there was, however, limited evidence of how tools and research had contributed towards outbreak response at this point in time.

²⁵ Including University of Sierra Leone (LSHTM); Connaught Hospital (KCL) and Ministry of Health and Sanitation (PHE).

²⁶ Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

²⁷ UK-PHRST, 2019. SMT Paper: UK-PHRST Research and Capacity Building Revised Strategy Outline Paper (Oct 2019).

²⁸ One of the recommendations (#1) from the mid-point evaluation report was to clearly articulate UK-PHRST's remit across the triple mandate. Implementation of this recommendation was still in progress at the time of writing, with some delays caused by COVID-19 and limited human resources.

High-level findings: EQ2, EQ2.1, EQ2.2, EQ2.3, EQ2.4	
<p>The nature of UK-PHRST’s work means that specific activities have been predominantly based on partners’ requests. This organically has ensured that activities were relevant, appropriate, and aligned with partners’ strategic plans, such as the National Action Plan for Health Security (NAPHS). UK-PHRST has also made efforts to ensure improved alignment of activities with the programme ToC, and thus contribution towards programme outcomes. The main perceived limitation is around duration of support rather than content of activities.</p> <p>Cross-cutting capacity development activities are seen as the most strategic and relevant aspect of the triple mandate in terms of supporting sustainability of outcomes. Despite considerable efforts to improve strategic direction, however, there is still a need to further refine, clarify and increase awareness of UK-PHRST’s approach to capacity development for any future phase.</p> <p>Activities around development and strengthening of successful, collaborative LMIC partnerships are also seen as key to increasing UK-PHRST’s ability to contribute towards programme outcomes. Partnership building at regional level is seen as especially strategic and pragmatic given the limited team capacity.</p> <p>Key programme assumptions underlying the original programme ToC, on collaboration with and capacity of partners, still hold true. However, there was limited evidence to support a number of internal assumptions around UK-PHRST team capacity and research processes.</p>	 <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 2.1: UK-PHRST’s specific activities are broadly seen as relevant and appropriate and aligned with partners’ strategic plans, as they are predominantly based on partners’ requests. Evidence shows that that processes for determining and prioritising these activities have been made more robust, especially over the final year of implementation. UK-PHRST’s CDT deploys only when a request is received, whether through the WHO–GOARN or via bilateral deployments. Research and capacity development activities are also predominantly linked to requests from partners or are co-developed, although this has been less the case with the research agenda, especially prior to the development of a strengthened research strategy.²⁹ There was broad consensus among key informants that this, along with good communication between UK-PHRST and their partners, organically ensures that activities across the triple mandate are relevant, appropriate and well aligned with partners’ strategic plans such as NAPHS, and that this is vital to ensure successful, collaborative partnerships and contribution towards and sustainability of programme outcomes.

Over the last year, processes for determining and prioritising activities have been strengthened. As well as responding to specific requests, UK-PHRST did conduct some needs assessments with partners such as Africa CDC, which resulted in targeted support (see Africa CDC case study, summarised in **Section 3.3.1** and in full in **Annex 7**). There was also evidence of research and capacity development activities being more routinely assessed via the TSC during the final 18 months of implementation, in terms of their alignment with programme outcomes as outlined in the revised research and capacity development strategy and in the programme ToC. Finally, it is important to note that there are some overarching criteria that cannot be changed, such as only ODA-eligible countries being eligible for support from UK-PHRST.³⁰

²⁹ UK-PHRST, 2019. SMT Paper: UK-PHRST Research and Capacity Building Revised Strategy Outline Paper (Oct 2019). As discussed in the mid-point evaluation report, prior to the revised research strategy and especially in the early years of the programme, there were concerns about pursuit of individual research interests not properly aligned with programme goals.

³⁰ This was a discussion point in case of a refugee and resultant health crisis in Greece, which primarily impacted people from ODA countries, but as Greece is not an ODA country, UK-PHRST were unable to deploy or support (referred in interviews from three internal and one wider GHS stakeholder).

Finding 2.2: Cross-cutting capacity development activities are widely seen as the most strategic and relevant aspect of the triple mandate to support sustainability and UK-PHRST's contribution to longer-term outcomes for outbreak preparedness and response. Capacity development is perceived to span the triple mandate, incorporating both i) more formal defined training and courses and ii) on-the-job training and coaching during deployment and research activities. UK-PHRST, wider HMG and partner stakeholders viewed capacity development as an area essential to contribute towards sustainability and UK-PHRST's contribution to intermediate and longer-term outcomes as outlined in the programme ToC (see the ToC in **Figure 2** and also discussion of sustainability in **Section 3.3.4**). Efforts to increase LMIC outbreak capacity (coupled with the move to more remote support – see remote support case study, summarised in **Section 3.2.2** and in full in **Annex 10**) were understood by many stakeholders to be particularly relevant to decreasing reliance on fly in/out support in any future programme phase. Further, these efforts were seen by some stakeholders as even more relevant in the context of discussions on the 'decolonisation of development' and re-energised by the resurgence of the global 'Black Lives Matter' movement over the course of 2020.³¹

'The only way you can [have a successful intervention] is by linking those [the components of the triple mandate], otherwise you will get what has been called the helicopter or parachute researchers who come in, who answer questions which are of interest to outsiders but not necessarily the questions and problems important to the countries that are receiving assistance. And then they go away and their careers reap the benefit and there is nothing much better left behind for the nationals in that country' (KII, UK research collaborator)

Finding 2.3: UK-PHRST have made significant efforts to strengthen research and capacity development activities and increase the focus on capacity development since late 2019, with some early signs of success. Many stakeholders, however, still see a need to further refine, clarify and increase awareness of UK-PHRST's approach to capacity development. As acknowledged by many stakeholders, UK-PHRST have made substantial efforts since late 2019 to provide greater clarity around the research and capacity development components of the triple mandate via development of an expanded, stand-alone research and capacity development strategy,^{32, 33} which proposed a way forward with more explicit integration of the triple mandate.³⁴ A series of approaches designed to overcome the challenges UK-PHRST experienced during implementation were outlined by interviewees, with an increased emphasis on areas such as knowledge sharing and a focus on further developing effective partnerships. However, a number of internal and external partners feel the capacity development strategy still requires further refinement and clarification, and that this needs to be more effectively shared with LMIC partners:

'We need to be clear on what capacity building is and means for UK-PHRST. For UK-PHRST, it is making response more sustainable, not a years-long investment. So, in this context, talking about response or technical support for up to six to eight weeks [...] but then make sure there is capacity within the team's mandate to go back and embed that a bit more' (KII, UK HMG)

³¹ Numerous blogs have been published on the topic of Black Lives Matter and its relation to international development and the aid agenda. Some examples are provided for context, along with a paper on decolonisation of global health to provide context for this finding:

'Decolonising global health: transnational research partnerships under the spotlight' (2020, Lawrence D & Hirsch L). Research paper accessed 11 December 2020 from <https://academic.oup.com/inthealth/article/12/6/518/5962065>

Price S, 2020. 'Do black lives matter for UK aid?' Available at: 11 December 2020 from <https://blogs.lse.ac.uk/covid19/2020/06/25/do-black-lives-matter-for-uk-aid/> (accessed 11 December 2020)

Nwajiaku-Dahou K and Leon-Himmelstine C, 2020. 'How to confront race and racism in international development.' Available at: <https://www.odi.org/blogs/17407-how-to-confront-race-and-racism-international-development> (accessed 11 December 2020)

³² UK-PHRST, 2018. Four-Year Strategic Framework 2018–2021.

³³ UK-PHRST, 2019. SMT Paper: UK-PHRST Research and Capacity Building Revised Strategy Outline Paper (Oct 2019).

³⁴ Ibid.

Finding 2.4: Activities related to development and support of successful, collaborative partnerships with in-country and regional institutions were seen as key to UK-PHRST's contribution to desired outcomes, with the growing focus on provision of support to and through regional stakeholders, such as Africa CDC, being a pragmatic and appropriate way forward. As found during the mid-point evaluation, the critical importance of strategic, collaborative partnerships to enable delivery of the triple mandate and improve sustainability of outcomes was broadly acknowledged across internal UK-PHRST, wider HMG and LMIC partner stakeholders. A recent deployment to The Gambia, where UK-PHRST conducted a joint assessment on the COVID-19 epidemiological situation with Africa CDC and the Institut Pasteur de Dakar (IPD), was seen as one example of a successful collaborative partnership with regional partners. Given the modest size of the UK-PHRST team, many stakeholders view the growing focus on provision of regional-level support as being a pragmatic and appropriate way forward in order to prioritise, guide and maximise the impact of UK-PHRST's activities in any future phase. As discussed later in **Section 3.2.2**, UK-PHRST have limited team capacity, even when including research fellows and reservists. In this context, a number of internal and external stakeholders feel that building on partnerships with regional stakeholders like Africa CDC is the right way to more effectively prioritise activities, maximise reach and impact within resource constraints, and enhance the potential sustainability of outcomes.

Compounding this, some global-level and UK-PHRST internal stakeholders also perceive this shift as being in line with a need to 'decentralise' programmes like UK-PHRST to regional and country levels in order to strengthen sustainability, ownership and leadership of outbreak response in the Global South in response to a changing global health landscape. Stronger collaboration with in-country and regional partners is seen as important in enabling UK-PHRST to respond to more requests for support, and key also to more sustainable capacity development in the long term. Global-level stakeholders also highlight that COVID-19 played a key role in accelerating understanding and support among governments in LMICs and leading stakeholders of the Global Health community for a more decentralised and country-led outbreak response model.³⁵ The UK-PHRST team had planned to take forward development of a partnership strategy during the final year of programme implementation;³⁶ however, a number of factors made this impossible. As a result, while many partnerships were seen as especially strategic, such as Africa CDC and Nigeria CDC, overall partnership building was still perceived as slightly ad hoc, based on ongoing positive relationships with these key regional partners. It is, however, clear that this potential way forward for future phases is pragmatic and appropriate given UK-PHRST's mandate and resources, and it is already showing positive results in terms of contribution towards programme outcomes (see Africa CDC case study, summarised in **Section 3.3.1** and in full in **Annex 7**).

Finding 2.5: UK-PHRST's activities align with the revised programme ToC and are widely seen by stakeholders as necessary and important components of a successful overall outbreak response, with the generally limited timeframe over which UK-PHRST are able to provide support seen as being the main gap or limitation. Due to the ToC development process described in **Section 2.1** and the nature of UK-PHRST's work,³⁷ the activities and planned changes outlined in the current ToC have remained relevant. Overall, UK-PHRST's activities are widely seen by all stakeholder categories as being important components of a successful outbreak response. While some of the specific activities supported were seen as comparatively small and/or niche, they still aligned with the overarching activities as outlined in the ToC, and supported programme outputs and outcomes. There was particular enthusiasm amongst LMIC partners for an increase in support from UK-PHRST for mental health and social science activities, as these are areas that receive less support from other donors and technical partners. Integrating social science more explicitly into response-related work is likely to increase the effectiveness of such work, as it will

³⁵ It is important to note that UK-PHRST's strategy in terms of working at regional or sub-regional level has evolved over the course of the programme, with earlier plans for sub-regional hubs abandoned. UK-PHRST's original intention was to have three capacity building hubs globally (West and East Africa, and one in Asia). However, this approach was revised and regional hubs abandoned in favour of establishing partnerships without the need to have a physical base. See 'East Africa Research and Capacity-building hub. Discussion paper and draft criteria for options appraisal' and 'Capacity-Building and East Africa Hub – Jan 2019 Meeting Notes' from UK-PHRST.

³⁶ In line with one of the recommendations from the mid-point evaluation.

³⁷ Rather than based on pre-defined country or regional level annual workplans or similar, based primarily on partner requests which are then assessed against UK-PHRST's capacity and relevance to the programme, and/or UK-PHRST's needs assessments of partners.

help understanding of risk factors, transmission routes and health-seeking behaviours of different groups in a specific context.³⁸ Further, it may help to avoid the likelihood of unintended negative consequences (see **Section 3.3.2**).

Despite the broad support across stakeholder groups for the majority of UK-PHRST's activities, there was a lack of consensus on whether their remit should include Water, Sanitation and Hygiene (WASH) and One Health (OH) activities, and whether they should take an 'All Hazards' approach.³⁹ The predominant concern among wider HMG and LMIC stakeholders on UK-PHRST's activities was the limited timeframe in which support is provided. There is a potential tension between the 'rapid' nature of the programme, designed to provide short-term surge capacity to outbreaks, and the longer-term support necessitated by effective and sustainable capacity development. Experience from the shift to remote and longer-term engagements necessitated by COVID-19 suggests that integrating some remote delivery and enabling longer-term engagement through non-deployable team members and partners could help to address this tension (see remote support case study, in full in **Annex 10** and summarised in **Section 3.2.2**).

Finding 2.6: There was limited evidence to support some of the internal assumptions underpinning the UK-PHRST revised programme ToC on team capacity and research processes, but other key assumptions around collaboration with and capacity of partners appeared to have largely held true. Independent Commission for Aid Impact (ICAI) reviews⁴⁰ and DFID guidance⁴¹ stress the importance of identifying underlying assumptions in the ToC and in reviewing these periodically to assess whether they still hold true – and revising them as necessary based on new/emerging evidence. **Annex 3** includes a summary of evidence from our end-point evaluation data collection of the extent to which assumptions as outlined in the current ToC appeared to have held. This is included to give UK-PHRST an indication of areas of potential concern as a future programme of UK-PHRST is being designed, so that appropriate mitigation plans and adjustments to assumptions can be made.

With the proviso that there is limited evidence against some of the assumptions, headlines from our analysis suggest that:

- Key assumptions around team capacity have failed to consistently hold true, with a number of challenges which are explored under **Section 3.2.2** and also in **Annex 3**.
- There are some indications that assumptions around some key research processes have failed to consistently hold true, with various internal and external challenges which are explored under **Section 3.3.3** and **Annex 3**.
- Key assumptions around collaboration with and capacity of LMIC partners appear to have mostly held true, although in several cases there was a lack of evidence in either direction. Again, this is explored in detail under **Section 3.3.3** and **Annex 3**.

³⁸ Itad, 2020. Mainstreaming Gender Equality, Equity and Human Rights concerns into the UK-PHRST Programme Learning Brief.

³⁹ During the process to review and finalise the mid-term evaluation report, the GHS Delivery Team at that time had stated that there were no plans for UK-PHRST to cover areas beyond response to infectious disease outbreaks.

⁴⁰ ICAI, 2018. DFID's approach to value for money in project and portfolio management. Available at: <https://icai.independent.gov.uk/html-report/dfids-approach-to-value-for-money-in-programme-and-portfolio-management/>

⁴¹ DFID SMART rules – multiple references including on pages 72 and 73.

3.2 Workstream 2: Implementation

This section presents findings on the implementation of UK-PHRST over the last four years and explores: progress against activities and outputs; the human resourcing model; governance and funding structures and reporting mechanisms; consortium partnership arrangements; internal and external communication; and how UK-PHRST work with the UK GHS and country, regional and global-level health security landscape, including partnership, alignment and coordination.^{42, 43}

3.2.1 Progress of UK-PHRST in delivering activities and outputs

EQ3 How successfully has UK-PHRST been operationalised?

EQ3.1 To what extent have planned programme activities been implemented and programme outputs achieved?

High-level findings: EQ3, EQ3.1	
<p>UK-PHRST planned activities and outputs have largely been achieved or exceeded (outputs 1 and 4) or are on track to be achieved (outputs 2, 3 and 5) across the triple mandate before the end of the first funding cycle. While capacity development activities incurred some delays in the first four years of the project, all (revised) output indicators related to capacity development are now on track to be achieved, contributing to a better balance between the three components of the programme. UK-PHRST have established collaborative partnerships with several national and regional partners, which has contributed positively to the achievement of outputs.</p>	<div style="text-align: center;">  <p>1</p> </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Achievement of project activities and outputs

Finding 3.1: UK-PHRST have ‘achieved’ or ‘exceeded’ most output milestones to date. For the period November 2016–June 2018 (years 1 and 2) these findings are based mainly on the Annual Review report.⁴⁴ From 2018/19 (year 3) until 2020/21 (year 5), the findings are based on analysis of UK-PHRST’s internal MEL spreadsheets against the project logframe. We have used the revised logframe⁴⁵ to assess the achievement of outputs over the entire implementation period.

For year 3 (2018/19) and year 4 (2019/20), the project met and exceeded most of the agreed milestones and deliverables. Project delivery was RAG-rated Amber/Green⁴⁶ in year 3, and Amber to Green in year 4.⁴⁷ Most progress was made on deployments and research projects, with 100% of activities achieved or on track at the end of year 4. However, capacity development outputs were demonstrating the slowest progress and not all outputs were achieved.

For year 5 (2020/21), our analysis indicates UK-PHRST are mostly on track with implementing the activities against output milestones. Despite the operational challenges related to the COVID-19 pandemic, project delivery was RAG-rated Amber/Green by the GHS programme in 2020.⁴⁸ As of January

⁴² Findings from EQ3.8 (internal and external factors that impacted on activities and outputs) are integrated throughout this section and the findings as a whole

⁴³ Findings from EQ3.8 (internal and external factors that impacted on activities and outputs) are integrated throughout this section and the findings as a whole.

⁴⁴ UK-PHRST, 2018. UK Public Health Rapid Support Team Annual Review.

⁴⁵ Following the recommendation of the mid-point report, the project logframe was revised in 2020.

⁴⁶ UK-PHRST, 2019. UK-Public Health Rapid Support Team Annual Review – 2018/19.

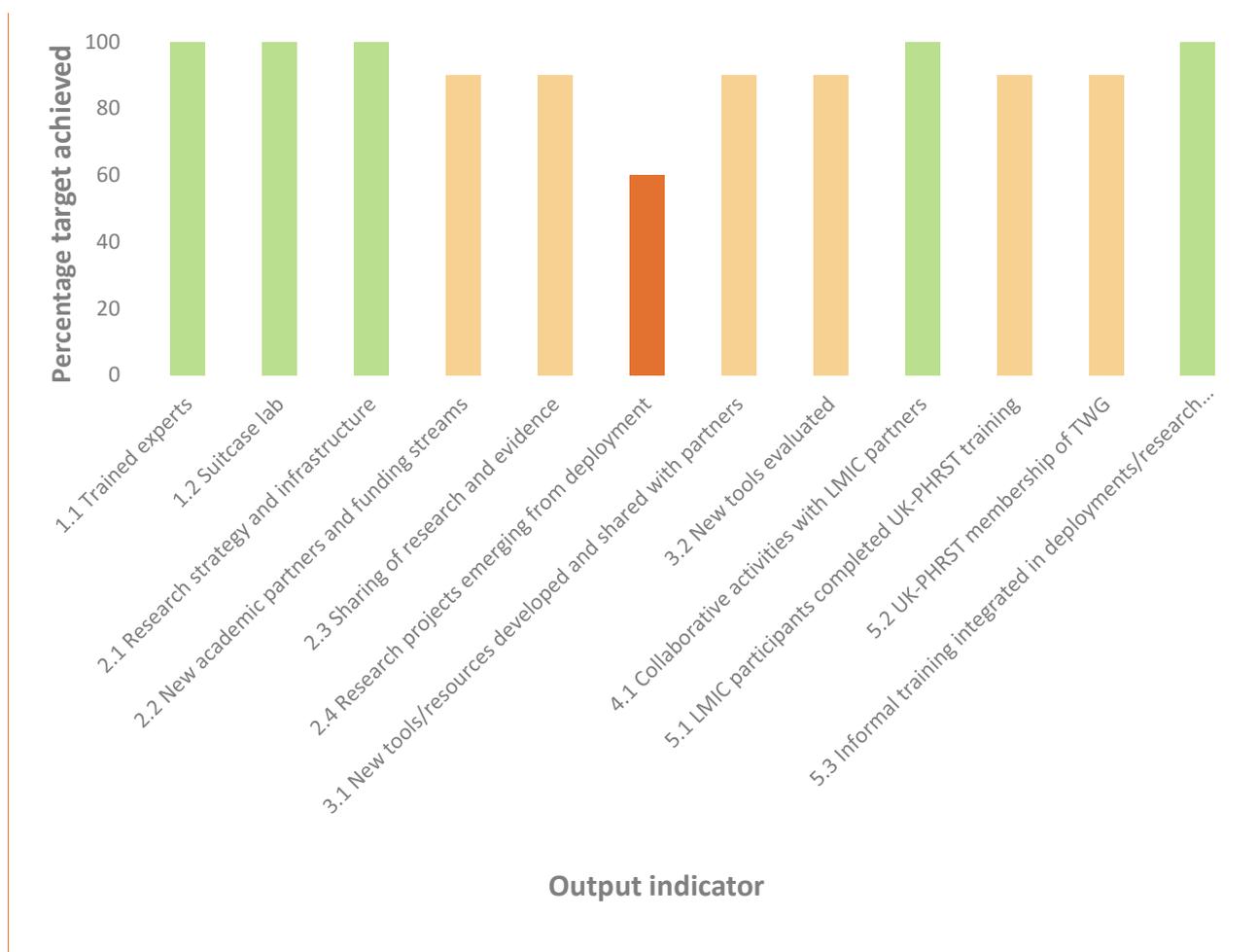
⁴⁷ 2019/20 – GHS programme reporting.

⁴⁸ 2020/21 – GHS programme reporting (May, August, November 2020).

2021, UK-PHRST were on track to achieve their milestones/targets, with 39% of planned activities implemented, 56% on track, and only 6% (one activity) not yet started. As the revised logframe includes a new output indicator to measure UK-PHRST’s contribution to capacity development through informal and on-the-job training and coaching, UK-PHRST have achieved or are on track to achieve all their capacity development outputs in the final year of the project implementation.

Considering the entire implementation period, UK-PHRST have achieved 42% (5/12) of all output indicators to date, while 50% (6/12) are in progress and on track, and 8% (1/12) are in progress but off-track, as illustrated in Figure 3: Graph demonstrating UK-PHRST’s achievements against output indicators, 2016–2020 (below).

Figure 3: Graph demonstrating UK-PHRST’s achievements against output indicators, 2016–2020



Output 1:⁴⁹ More effective UK response to outbreaks, including established operational capacity and processes to support rapid deployment for optimal field performance.

All deployment milestones were achieved and/or exceeded in years 2–4 (2017-2020)⁵⁰ of the programme implementation and are well on track (likely and feasible) for year 5 (2020/21). To date, UK-PHRST have conducted 19 deployments⁵¹ with a total of 348.5 person-weeks in the field from April 2017

⁴⁹ In the following paragraphs, we report on the three outputs related to the triple mandate (outputs 1, 2 and 5). A detailed analysis of achievements against outputs 3 and 4 can be found under the answer to EQ3.7, finding 3.17 as well as EQ5, findings 5.1 and 5.2.

⁵⁰ Year 2 (2017/18), year 3 (2017/18), and year 4 (2019/20).

⁵¹ When UK-PHRST deploy multiple times to the same country for the same disease (e.g. Ebola in DRC North-Kivu), this is counted as one (rolling) deployment – e.g. COVID-19 support in Bangladesh and The Gambia). An exception to this is Lassa fever in Nigeria, where two deployments were made in February 2018 and February 2019. Given the period of time which elapsed between the deployments, the deployments are considered separately.

until December 2020 (see **Annex 6** for a detailed list of deployments).⁵² UK-PHRST deployed members of the CDT, FETP and reserve cadre with core skills in a wide range of disciplines, including epidemiology and surveillance, laboratory, clinical case management, logistics, data management and social science. Most of the in-country deployments were conducted in Sub-Saharan Africa: DRC (Democratic Republic of the Congo) Equateur (1), DRC North Kivu (multiple), Ethiopia (2),⁵³ The Gambia (1), Madagascar (1), Nigeria (4), Rwanda (1) and Sierra Leone (1). The team also deployed to Bangladesh (4), The Philippines (1), Nepal (1), Tajikistan (1) and Switzerland (WHO headquarters). The UK-PHRST mobile suitcase lab was utilised during deployments to the Philippines, Nigeria and Sierra Leone. Two exercises to test full-scale mobile laboratories are planned to take place in Q4 2020/21.^{54, 55}

After the emergence of the COVID-19 pandemic, UK-PHRST deployed remotely to Africa CDC/AFCOR and Bangladesh to support the COVID-19 response, and to WHO Geneva (DRC Ebola). ‘Blended deployment’, combining in-country and remote support, is emerging as a novel model, for example in Bangladesh. However, no data is available on the staff inputs for these remote deployments and other ad hoc remote support provided to countries since March 2020.⁵⁶

Output 2: Research to build an evidence base for optimum prevention and response conducted before, during and after outbreaks. Knowledge sharing and external funding to maximise benefit.

All research milestones were met in year 3 (2018/19) and year 4 (2019/20) and are on track (likely and feasible) for year 5 (2020/21), at the time of writing. A total of 37 research projects have been funded by UK-PHRST to date, of which 14 are ongoing. Forty-seven studies have been published (n=46) or submitted pre-printed (n=1) in peer-reviewed journals to date (see list of research projects and publications in **Annex 6**). Travel restrictions and other logistical challenges due to COVID-19 delayed several research projects in 2020/21, requiring an extension of their implementation period. Moreover, the short horizon of the first funding cycle of the UK-PHRST project, which was originally expected to end in March 2021, precluded new research and capacity development projects in late 2020. With a cost-extension of UK-PHRST until September 2021, most ongoing research projects are now on track, and UK-PHRST expect to receive more diverse research proposals moving forward. There are many examples of how UK-PHRST identified research questions during deployments and subsequently developed research projects, including in Sierra Leone (mudslide deployment), Madagascar (plague deployment) and Nigeria (Lassa Fever deployments). Two further positive examples are emerging from deployments to Bangladesh (a COVID-19 seroprevalence study) and The Gambia (a new research project in progress). The need remains, however, to strengthen the implementation of research projects during UK-PHRST deployment or remote support.

In 2020/21, UK-PHRST collaborated with other partners on externally funded research projects, including: the Gates Ventures and Our World in Data, to identify countries exemplifying effective responses to COVID-19; the Partnership for Evidence-Based Response to COVID-19 (PERC), collecting data on COVID-19 from African Union (AU) Member States; and a WHO-funded research study on ‘COVID-19 Droplet Protection Using Face Shields: Development of methods to measure effectiveness of face shields for local production and adoption in low resource settings’.

⁵² UK-PHRST Annual Action Review 2018-2019; UK-PHRST Annual Action Review 2019-2020; UK-PHRST Mid-point Evaluation Report; Project Board Directors’ quarterly reports 2020/2021.

⁵³ One of these deployments was country-specific, while the other one supported the region through Africa CDC.

⁵⁴ UK-PHRST 1.0. Logframe and Monitoring Sheet FINAL Jan2021.

⁵⁵ As discussed in the AAR in January 2020, the relatively high proportion of deployments to countries in Sub-Saharan Africa as compared to other regions is partly caused by the needs and higher demand by these countries for UK-PHRST support. Established partnerships between UK-PHRST and partners in those countries is another influencing factor.

⁵⁶ The GHS Programme Report from May 2020 indicates that remote support was delivered to countries alongside colleagues in WHO SEARO, WHO-AFRO, Africa CDC, Bangladesh CDC and Nigeria CDC. However, there is no other report or evidence of exactly what kind of remote support was provided to e.g. Nepal and Nigeria beyond March 2020.

Output 5: Formal and informal capacity building provided to strengthen UK and LMIC response, outbreak management, and technical and research skills.

One of the three output indicators related to capacity development has been achieved, while the remaining two are on track and expected to be achieved before the end of the current project phase.

UK-PHRST identified gaps and needs for capacity development collaboratively with partners before or during deployments, or through their participation in various technical working groups (TWGs). For example, UK-PHRST recently conducted a joint assessment related to COVID-19 in The Gambia with Africa CDC and delegates from Institut Pasteur Dakar, Senegal. UK-PHRST supported formal training of LMIC partners through the MOOC, online webinars, three MSc-level training courses (in progress), and BSc teaching in Sierra Leone on microbiology/laboratory. All deployments and research projects have involved on-the-job training and coaching of personnel involved in outbreak response or research. UK-PHRST also shared cutting-edge knowledge and technical advice through their membership of technical working groups, including the Africa CDC COVID task force (AFCOR) TWGs for infection prevention and control (IPC), Surveillance, Lab, Clinical Case Management, Risk Communication; the Mobile Laboratory Standardisation Group; and the Nepal Laboratory Network. Stakeholders in LMIC considered UK-PHRST’s contribution to formal and informal training highly relevant and responsive to needs identified by regional or national level partners.

3.2.2 Appropriateness of the human resourcing model and balancing of competing demands

EQ 3.2 Is the human resourcing model appropriate in terms of capacity, expertise and ability to effectively deliver across the triple mandate?

EQ 3.3 Are research plans sufficiently flexible for research to stay on course despite deployments?

High-level findings: EQ3.2, EQ3.3	
<p>UK-PHRST are considered a highly professional and experienced team offering multidisciplinary expertise across the core pillars of outbreak response. Having a permanent CDT available to work on research and capacity development between deployments is broadly seen as valuable. Visible efforts have been made to increase UK-PHRST’s human resources since the mid-point evaluation. However, the team remained overstretched in the last year of implementation due to retention issues, cumbersome processes for hiring, and challenges with utilising reservists more. As a result, the team did not have sufficient capacity to fully meet the demands without a high risk of burnout.</p> <p>Despite resourcing challenges, the team have improved their ability to deliver across the triple mandate over time, with capacity development taking a more prominent role recently. While the COVID-19 pandemic resulted in an organic shift towards remote support and facilitated the delivery of integrated support and activities across the triple mandate, it also presented challenges in terms of the implementation of research plans and long-term capacity development to individual countries. Research plans were not able to fully stay on course during the COVID-19 pandemic due to travel restrictions and the fact that UK-PHRST CDT members were heavily involved in nearly full-time remote deployments to Africa CDC.</p>	<div style="display: flex; align-items: center; justify-content: center;">  </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 3.2: UK-PHRST are considered a highly professional and experienced team offering multidisciplinary specialist expertise across the core pillars of outbreak response. UK-PHRST carry out exceptionally skilled activities and offer cutting-edge knowledge and tools to infectious disease outbreak response and as part of research projects. Key stakeholders consider UK-PHRST an extremely reliable partner because of their ability to deploy rapidly, provide flexible support in response to gaps and needs identified by partners, and deliver high-quality technical expertise. The UK-PHRST team’s ability to cover a wide range of disciplines and technical areas across the triple mandate is seen as a unique strength by WHO, GOARN and regional and country partners.

Finding 3.3: Having a permanent CDT who can work on research between outbreaks and a team of research fellows and reservists to provide surge capacity is still seen as valuable and necessary to support operationalisation across the triple mandate. The design of UK-PHRST explicitly allowed for the existence of a CDT that deploy rapidly to support outbreaks, conduct research and build capacity. This continues to be an innovative model within the GHS landscape.⁵⁷ It is seen as providing more opportunities for development of innovative and relevant research and tools, and useful and practical capacity development initiatives which can be used by LMIC partners to contribute to improved outbreak response.

Finding 3.4: UK-PHRST have made visible efforts to increase their capacity and technical expertise and skills mix by recruiting new staff members and broadening its base of reservists. Some expansion of the team has taken place, with the appointment of a Training Manager, an LSHTM Research Coordinator, and additional research fellows. In addition, the hiring of a mental health expert and the planned hiring of a Gender, Equity and Human Rights Senior Policy Advisor shows efforts to address some skills gaps within the team. Moreover, UK-PHRST have recruited eight new reservists to expand the pool of deployable experts.

Finding 3.5: Despite these efforts, however, the team remain heavily overstretched due to increased workload, retention issues, hiring processes, and challenges with utilising reservists more. As a result, the team are currently not fully equipped to meet the demands across the triple mandate without a high risk of burnout. Despite efforts being made, there are strong indications that the team have remained overstretched throughout the implementation period, continue to lack skills in some areas (such as gender, equity and human rights, as well as foreign language skills) and are at high risk of burnout, as the current capacity still does not match demands. This is primarily due to retention issues linked to future funding insecurity (linked to overall ODA budget cuts as well as shorter funding cycles) and COVID-19-related opportunities that are available in the market, overall increased workload due to COVID-19, lengthy hiring processes (beyond UK-PHRST's control) and resources being pulled to support the domestic response to COVID-19.

'We're not moving in [the] right direction in terms of team capacity. Probably [we] have about the same capacity as last year, especially with recent departures. We've got a few posts we need to fill now. The team is already stretched, and COVID-19 has made us even more stretched. [...] Working from home being the only option, the lack of interpersonal interactions, travel, makes the job harder and less interesting and dynamic. Human resources continue to be stretched, and at a time when many team members have additional pressures due to COVID-19.' (KII, UK-PHRST)

Both internal and external stakeholders felt that reservists had been underutilised in terms of supporting response activities.⁵⁸ The target of 25 reservists was not met, as only 18 were recruited, of which only 13 were available as of January 2020. A total of seven reservists were deployed (five in-country and two remotely), of whom two were from PHE, five from LSHTM and one from another organisation.

'Limited human resources [of the UK-PHRST team] have definitely been a hindrance. Their inputs have been requested for more events and issues for long periods, and they

⁵⁷ Since the mid-point evaluation was conducted, there are indications that some other organisations at global and regional levels are working towards a similar 'triple mandate' model to UK-PHRST, but it remains to be seen if they will also have a similar model in terms of the CDT complemented by research fellows and reservists.

⁵⁸ The mandate of FETP Fellows and reservists does not cover all areas of the triple mandate as, where activities will take a number of years (e.g. for research and capacity building), it would not be feasible to use them, given their other professional obligations. Moreover, field experience in a response setting is more sought as an experience than exposure to the other two components of UK-PHRST's mandate.

have not been able to support [all] because they don't have enough people, and failure to bring in wider community in the UK certainly contributed to that.' (KII, UK HMG)

A recent review of the Reservist Cadre model and engagement in 2019–20 identified key challenges related to the existing model which could explain the perceived underutilisation of the reservists. These include: the fact that the mandate of FETP Fellows and reservists is not thought to cover all areas, but deployments only; lack of release of reservists by their line managers; changes in personal situation of recruited reservists; and issues with payment processes.⁵⁹ Moreover, many senior reservists were unavailable for UK-PHRST deployment due to their involvement in the UK COVID-19 response (especially PHE reservists), while more junior reservists might have not had sufficient fieldwork experience to be deployed to high-profile response work.

To mitigate some of these challenges, UK-PHRST are in the process of reshaping the current model going forward, by, for example: broadening the scope of activities for reservists, to include research and capacity development in addition to deployments; and expanding and exploring recruitment options, specifically in relation to the UK-based reserve cadre.⁶⁰

Finding 3.6: Despite these challenges, UK-PHRST have significantly improved their ability to deliver across the triple mandate over time. Capacity development has taken a more prominent role in the last year, with the increased deployment of multidisciplinary teams and a shift to longer-term support, prompted by COVID-19. As described in the mid-point evaluation, UK-PHRST experienced initial challenges with operationalising the triple mandate, and deployments often took precedence over research and capacity development. As a result, UK-PHRST's capacity development offer was perceived to be less well-defined until the final year of the programme: in late 2019, a capacity development and research strategy⁶¹ was finalised, aiming to build a joint understanding among UK-PHRST team members of how to operationalise the triple mandate. The organic move to more remote support also encouraged progress in this area, allowing for longer-term and more multidisciplinary support to regional partners and individual countries (see remote support case study summarised in **Box 1**, below, and in full in **Annex 10**). Many stakeholders also shared that operationalisation of the revised research strategy was showing some early signs of success, with research activities more closely aligned with the ToC.⁶²

There are several examples of how UK-PHRST has successfully delivered across the triple mandate using a multidisciplinary team approach. For example, in Nigeria UK-PHRST provided long-term support across the triple mandate. A multidisciplinary team supported capacity development of key staff of Nigeria CDC, the National Reference Laboratory (NRL), and front-line health workers in clinical case management, MinION sequencing, surveillance and epidemiology, and research methods. Furthermore, in the DRC UK-PHRST continuously supported the WHO–GOARN's response to the EVD outbreak in 2018 and 2019 by deploying 16 multidisciplinary specialists to the DRC on a 'rolling' basis. UK-PHRST support involved establishing an epidemiological analytical data cell to provide routine and advanced analyses for the strategic coordination of the response. UK-PHRST's support to Africa CDC on the response to the COVID-19 pandemic has been multidisciplinary in nature and spanned across in-country and remote deployment, capacity development and (to a lesser extent) research. In 2020 UK-PHRST deployed a team to support Africa CDC in surveillance and epidemiology, case management, social science, risk communication and community engagement, logistics and data management. In Bangladesh UK-PHRST have contributed to developing the capacity of local staff of the WHO office and key partners during a cholera outbreak and, recently, in support of the COVID-19 response. UK-PHRST experts have provided on-the-job training and coaching to laboratory, epidemiology and surveillance teams.

⁵⁹ Ibid.

⁶⁰ This aims to help to access previously untapped resources and increase overall human resource capacity, rapidly fill skills gaps not currently present in the UK-PHRST team, and increase the likelihood of release when not drawing from the same organisation all the time.

⁶¹ UK-PHRST, 2019. UK-PHRST Research and Capacity Building Revised Strategy Outline Paper.

⁶² Although there is limited evidence at this stage of research outputs actually contributing towards expected outcomes (See **Section 3.2.2** for further discussion).

While UK-PHRST have provided several opportunities for learning in formal settings, their capacity development efforts have also been integrated organically with deployments and research activities. Regional and country-level stakeholders in particular, who directly collaborated with UK-PHRST, highlighted the importance of informal training and on-the-job coaching towards strengthening their outbreak response capacity.

Finding 3.7: While the COVID-19 pandemic resulted in an organic shift towards remote support and facilitated the delivery of integrated support and activities across the triple mandate, it also presented challenges in terms of the implementation of research plans and long-term capacity development activities to individual countries. Shifting to remote deployments during COVID-19 facilitated multidisciplinary support and increased flexibility in some cases (Africa CDC), but also limited the availability of the UK-PHRST team to provide long-term support to individual countries. For example, some partners in Nigeria noted that UK-PHRST availability for remote support was limited due to their involvement in supporting COVID-19 responses in other places. Some UK-PHRST senior staff were remotely deployed full-time to support the COVID-19 response, limiting their ability to advance their research projects and supervision of research fellows. The suspension of overseas travel due to COVID-19 caused further delays in research implementation, as field work was not possible for several months. Some stakeholders felt that UK official travel advice and restrictions significantly impacted the team's ability to support the outbreak response effectively in the field at a time when it was most needed. As expressed by one stakeholder:

'It's also to do with the risk-averseness of the government institutions [...] It's like if you had a fire brigade, and you say no, you cannot go when the house is on fire, it is too dangerous... [It] should be more like, when there is a problem, they are set up to go where the problem is.' (KII, UK-PHRST)

Box 1: Remote Support Case Study Summary



What was the context?

Pre-COVID-19, UK-PHRST experts generally used to deploy in person for up to six weeks to support an outbreak response in any given country. The COVID-19 travel restrictions meant that the UK-PHRST team had to quickly shift to deploy remotely over longer periods of time.

What did UK-PHRST set out to do?

When the decision was taken in March 2020 to repatriate all staff and to temporarily halt in-person deployments, the team adapted very rapidly to the new situation and showed great flexibility to meet partners' demands by using various technological platforms to facilitate communication and collaboration. This shift was not part of a pre-determined strategy but happened organically.

How did things play out in practice?

Existing working relationships with a wide range of regional and country partners were adapted and expanded in order to enhance the effectiveness of UK-PHRST remote support. UK-PHRST used webinars, online training courses, web-based surveys, online interviews and virtual focus group discussions to provide remote technical support across the response pillars of epidemiology and surveillance, IPC, laboratory, social science, case management and logistics.

How did the triple mandate play out/work out?

The shift to remote working had a positive impact overall on the implementation of the triple mandate, as it allowed UK-PHRST to intensify their capacity development efforts and provide long-term remote support. It also enabled multidisciplinary teams to work jointly with several countries at the same time. However, COVID-19 travel restrictions and logistical challenges paused or slowed down the implementation of most research activities.

What worked particularly well?

- Provision of flexible long-term support beyond the typical six-week period of in-country deployment became possible.
- Existing strong LMIC partnerships significantly increased UK-PHRST's ability to leverage remote work opportunities.
- Remote support to Africa CDC was an effective way to support multiple countries indirectly through the development of webinars, guidelines and tools for enhanced outbreak response.
- Working from home increased the flexibility of UK-PHRST staff in terms of working hours and location, reduced travel, and the elimination of physical deployment challenges.
- Remote working improved internal communication and teamwork as new processes for co-working evolved when physical meetings were no longer possible.
- Remote working provided an opportunity to leverage the use of reservists in a more flexible way, as some of them supported UK-PHRST on a part-time basis while also meeting the needs of their home departments during the COVID-19 pandemic.

What were the challenges?

It is difficult to create new partnerships and to carry out needs assessments and develop work plans jointly when only working remotely, especially without prior knowledge of the context and its partners.

Remote support has its limitations since not all activities can be carried out in this way, such as laboratory work and certain capacity building and research activities at sub-national level.

Although remote working increased the flexibility of UK-PHRST staff in a positive way, it also had significant drawbacks in terms of mental health, including increased risk of burnout. Time zone differences contributed to this.

How has UK-PHRST worked alongside others to contribute to observed programme outcomes?

COVID-19 and remote working provided opportunities for UK-PHRST to participate increasingly in TWGs at Africa CDC and country levels. This served to reinforce collaboration and coordination with other partners, including UN agencies, bilateral partners, NGOs and academic institutions.

What is there to be learned?

- The shift to remote working had a positive impact overall on the operationalisation of the triple mandate because it helped to give capacity building a more prominent role in the triple mandate and facilitated the integration of activities across the three components.
- In-person contact and first-hand knowledge of the country are necessary conditions for working together from a distance effectively and for building sustainable collaborative partnerships.
- An opportunity has arisen for UK-PHRST to leverage their initial experiences with remote support to develop a 'hybrid model' that combines both remote and in-country technical support for the capacity building of sustainable outbreak response. Initial experiences, for example in Bangladesh, have shown positive results.
- To ensure continuity and sustainability, UK-PHRST need to decentralise themselves and prioritise stronger engagement of regional and national specialists in the provision of technical support and capacity building.

3.2.3 Appropriateness of the governance structures, including funding arrangements and reporting mechanisms

EQ3.4 How appropriate are the governance structures of this model, including funding arrangements and reporting, and how could they be strengthened?

High-level finding: EQ3.4	
<p>The governance structures of the UK-PHRST model are appropriate overall, although some coordination challenges still remain. Since the mid-point evaluation, the UK-PHRST team have endeavoured to strengthen their governance and reporting mechanisms, although it remains too early to assess whether this has strengthened governance of UK-PHRST in practice. The oversight and management of the research portfolio improved significantly with the development of a clearer governance processes and streamlining of approval and review processes. The need remains, however, to further clarify accountability mechanisms for capacity development as a cross-cutting component in order to enhance strategic leadership and effective implementation of this component of the triple mandate.</p> <p>UK-PHRST financial arrangements and administrative processes, albeit motivated by VfM principles, did not facilitate ‘rapid’ access to research funds during deployments and epidemic outbreaks. A new process has recently been put into place to allow for rapid access to research funds during outbreaks. Differences in financial and administrative procedures between LSHTM and PHE can cause some confusion among UK-PHRST staff.</p>	<div style="display: flex; flex-direction: column; align-items: center;">  <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p> </div>

Governance and management

Finding 3.8: Since the mid-point evaluation, the UK-PHRST team have endeavoured to address some of the structural and operational challenges related to governance and reporting mechanisms. However, it remains too early to assess whether this has strengthened the governance of UK-PHRST in practice. UK-PHRST have made efforts to enhance programme governance by revising the ToRs of the two main advisory structures, the TSC and the UK-PHRST Project Board. The TSC has adopted the use of a standard template to streamline processes for the review and approval of research proposals. External reviewers have now been included as members of the TSC with the aim of ensuring that research proposals are reviewed by independent experts to provide the appropriate challenge and scientific critique. The Project Board and NIHR oversee this review process and provide comprehensive QA. The ToRs of the UK-PHRST Project Board were revised to include external members – Nigeria CDC, Africa CDC, WHO-AFRO (WHO Regional Office for Africa) and GOARN. Many stakeholders felt that the revision of the ToRs for the two main governance boards has helped improve steering and oversight and involvement of a broader range of external stakeholders. However, it is premature to assess whether the revision of the steering structures TSC ToRs and Project Board have translated into improved accountability and reporting practices between the UK-PHRST consortium and team members.

‘I think the governance arrangements work, in that we have the SMT, which crosses institutions and deals with relations with DHSC, and we have the TSC for academic scrutiny. I see it now as a matter of implementing that and refining things.’ (KII, UK-PHRST reservist)

Finding 3.9: The governance and management of the research portfolio have improved over the course of implementation, with the development of a clearer strategic vision and streamlined processes for reviewing and approving research proposals and for monitoring the progress of research projects. There is a wide consensus among stakeholders that the governance and management of the research portfolio have been reinforced. As highlighted in **Section 3.1.2**, the development of the UK-PHRST Research and Capacity Building Strategy helped clarify how UK-PHRST aim to coalesce these two components and define

core workstreams to operationalise the strategy and better integrate activities across the triple mandate. Both internal and external stakeholders highlighted that the appointment of a new Deputy Director for Research in 2019 was instrumental in developing a clearer vision for the research component which was better aligned with the ToC, further efforts to strengthen the coordination of the research portfolio based on strategic priorities, and improving collaboration with the PHE and other academic partners.

Finding 3.10: There remains a lack of clarity regarding accountability for capacity development activities within the UK-PHRST consortium. Across the consortium, the need remains to define clear mechanisms for accountability in order to facilitate and enhance strategic leadership and effective implementation of this component of the triple mandate. While UK-PHRST have made significant progress in prioritising capacity development as an important part of their remit in the last year, there is a broad consensus that the accountability mechanisms for capacity development have remained to some extent unclear and need further reinforcement.⁶³

'The governance structure in terms of where capacity building sits [...] may still not be universally understood. [We] have been trying since the mid-term evaluation to pull together a manual on this. [...] Governance for deployments is clear, and for research is clear. For capacity building work [...] it still sits in a gap in the middle. What I'd like to do is have an overall framework to hold it all together.' (KII, UK-PHRST)

As noted in the mid-point evaluation, a key reason for this is that contracts and partnership agreements do not explicitly outline where the responsibility lies for reporting against capacity development activities.^{64, 65} Other factors include the nature of LSHTM as an academic institution; the focus of the TSC on research only (prior to late 2019), with no equivalent committee for capacity development activities; and the fact that many capacity development activities are intrinsically related to research and outbreak response activities, rather than being separate.⁶⁶

Funding arrangements

Finding 3.11: UK-PHRST's financial arrangements and administrative processes, albeit motivated by VfM principles, do not facilitate 'rapid' access to research funds during deployments and epidemic outbreaks. UK-PHRST recently developed a Rapid Research Proposal process to overcome this challenge. While the overall governance of the research portfolio has been strengthened, stakeholders noted that the processes for applying for and accessing funds to conduct research during deployments and epidemic outbreaks are slow, which does not facilitate 'rapid' research. Some stakeholders perceived that subcontracting processes for academic partners not included in the original consortium have been 'complicated' and produced delays in contracting and disbursement of funds. However, other stakeholders noted that the time required to subcontract new external academic partners is often determined by standard due diligence processes that UK-PHRST/LSHTM must follow to ensure that partners are financially sound and can deliver VfM.

UK-PHRST recently developed a Rapid Research Proposal process which facilitates speedy approval of research activities arising in context of response by delegating responsibility for approval of a maximum £15,000 to the UK-PHRST Deputy Director of Research or Programme Manager. Following a deployment in

⁶³ Many stakeholders perceive that outbreak response is primarily overseen by PHE, and that research is primarily overseen by LSHTM (although both PHE and LSHTM staff are involved in deployments and research projects), whilst it is unclear exactly who is driving and accountable for capacity development activities.

⁶⁴ UK-PHRST, 2017. Research Contract Between Secretary of State for Health and LSHTM: UK deployment and research reporting arrangements are explicitly outlined. In comparison, capacity development is only mentioned in passing, with LSHTM expected to support PHE with an initial scoping exercise.

⁶⁵ UK-PHRST, 2017. Partnership Agreement between PHE and LSHTM: The Partnership Agreement between PHE and LSHTM makes no reference at all to capacity development activities.

⁶⁶ Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST), p.25. Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

Bangladesh, this new process was used to respond quickly to the need for a UK-PHRST data scientist to support a WHO/GOARN deployment for a COVID-19 seroprevalence study in Cox’s Bazar Rohingya refugee camp.

Finding 3.12: Differences in financial and administrative procedures between LSHTM and PHE can at times cause some confusion among UK-PHRST staff. The need exists to clarify, and as far as possible harmonise, these procedures to facilitate logistics and payments during field visits. PHE and LSHTM use different systems for financial management, logistics and administration. Depending on which institution is leading a particular research project, either PHE or LSHTM financial procedures must be followed. Some stakeholders noted that this creates confusion, and felt UK-PHRST should be able to apply a harmonised set of procedures, especially for logistics and financial management during field visits.

‘In terms of lower level, day to day operations, the systems across the organisations are quite separate. We are having to go through systems in each of the organisations which are quite rigid. It’s not like we can just develop a new UK-PHRST system. [...] For example, when it comes to how funds are managed in-country, it is very different.’ (KII, UK-PHRST)

3.2.4 Consortium partnership and internal communication

EQ3.5 To what extent do UK-PHRST work as a complementary and coordinated partnership between the consortium partners?

EQ3.6 How effective are internal communication processes within the consortium and how can they be improved?

High-level findings: EQ3.5, EQ3.6	
<p>There is evidence that UK-PHRST to a large extent work as a complementary and coordinated partnership between the two main consortium partners, PHE and LSHTM, drawing upon the comparative advantages of each organisation. There is good collaboration across the different workstreams and organisational boundaries, and increasingly a sense of being unified as a team. COVID-19 and the shift to remote working helped reinforce effective virtual communication practices independent of institutional affiliation or the geographic location of team members.</p> <p>Strategic questions were raised by some stakeholders around PHE–LSHTM equal partnership and how to better engage additional academic partners to support the triple mandate and programme outcomes. On balance, with significant efforts already made to improve internal collaboration and communication and of the advantages provided by the consortium model, maintaining the equal partnership with added academic collaboration seems the right way forward. Key reflections emerged as a result of challenges experienced during the collaboration with King’s College London and Oxford University, which fed into a wide consensus that the current consortium composition would benefit from being more inclusive of a broader range of academic institutions, in order to adequately counter research gaps across multiple disciplines. Plans to do this in the next phase have already been outlined.</p> <p>While internal communication between UK-PHRST and DHSC has generally been good, some stakeholders felt there is a need to share information on key strategic issues with the GHS Programme Board more regularly to help inform and influence the overall strategic direction of UK-PHRST. Also, the development of a communications strategy could further solidify communication processes within the consortium.</p>	<div style="text-align: center;">  <p>1</p> </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 3.13: Internal communication within the UK-PHRST team and collaboration between the two lead consortium partners has improved significantly over time. Overall, there is increasingly a sense of being unified as a team, although there are still some tensions due to differences in organisational cultures. UK-PHRST have endeavoured to enhance internal collaboration by strengthening team working practices and greater integration of the different workstreams. Stakeholders noted an increased awareness among UK-PHRST staff as to the importance of team working across PHE and LSHTM:

‘It has been quite challenging to work across the triple mandate, but it has improved over the last six months, and the importance is now being recognised within the programme, that we need to integrate into one team, across the workstreams. That is what optimises the way it can work. We have made some progress – we did integrate more across workstreams than what was actually articulated.’ (KII, UK-PHRST)

There are indications that UK-PHRST internal communication processes have been enhanced over time. UK-PHRST team members report effective sharing of information through both formal and informal lines of communication. Regular meetings of the TSC, Project Board, SMT and Full Team Meetings, as well as between the two Programme Managers and the academic partners, are all viewed as beneficial ways to share knowledge and discuss operational issues. Some stakeholders mentioned that the two lead partners have learned to better collaborate and overcome initial challenges caused by different organisational cultures. There appears to be positive dialogue between the LSHTM programme manager, the UK-PHRST Deputy Director for Research and the NIHR regarding research projects.⁶⁷ UK-PHRST have developed a Matrix Management Approach Paper with the intention of further clarifying lines of reporting and improving cross-team collaboration.⁶⁸

However, some stakeholders noted that the organisational differences between PHE and LSHTM, and the UK-PHRST ‘in the middle’ as a bridge across the two, still produce some tensions and challenges to an effective collaboration within the consortium:

‘Disadvantages [to the consortium model] are largely [...] in terms of lots of different ways of working that you have to contend with. There have been a lot of delays due to negotiating doing things the way each organisation does things, each organisation’s different finance systems, different reporting systems.’ (KII, UK-PHRST)

Moreover, the employees of the two institutions have different salaries and benefit packages and measure individual performance differently, which may lead to some discontent when working as one team on common projects.

Finding 3.14: While some strategic questions were raised around the PHE–LSHTM equal partnership, the model may represent the best way forward. Bringing together a government and an academic institution posed a number of primarily operational challenges. In light of these, some wider HMG stakeholders did raise questions on whether an equal partnership between PHE and LSHTM was the best way forward in terms of maximising successful operationalisation and improved outbreak response. Given the significant efforts UK-PHRST have already made to improve internal collaboration and communication (see above) and the advantages provided by the model described in **Section 3.1.1**, however, the proposal of maintaining the same equal partnership in draft business case for a future UK-PHRST programme may be, on balance, the best way forward.

⁶⁷UK-PHRST Research Portfolio_30.4.2020.pdf

⁶⁸UK-PHRST314 - SMT Minutes (27 May 2020).pdf

Finding 3.15: COVID-19 and the shift to remote working strengthened internal communications and helped creating a stronger sense of being ‘one UK-PHRST team’. There are strong indications that The shift to remote working during the COVID-19 pandemic helped establish effective virtual communication practices independent of institutional affiliation or the geographic location of team members. Team meetings became more frequent and opportunities to work together on the same topics multiplied. Shifting to virtual meetings and adopting the use of WhatsApp as a communication platform encouraged colleagues to step out of their usual ‘office bubble’, helping to erode institutional barriers and increasing team spirit.

‘We’ve seen with everyone working from home, that in some ways this has been reduced in terms of communication difficulties, because you don’t think of people as part of a separate organisation if you’re not in a bubble in the same office.’ (KII, UK-PHRST)

Finding 3.16: There were some challenges integrating the work of KCL and Oxford University into the broader UK-PHRST research portfolio and partnership, which resulted in key reflections on how best to involve academic partners in the next phase of the programme. While KCL were brought into the UK-PHRST partnership to provide specific expertise around mental health, stakeholders noted that KCL’s mental health research was less integrated with the broader work of UK-PHRST across the triple mandate, potentially due to the scope and oversight structure of the partnership.

‘King’s didn’t have full-time members or staff who were deployed [...] King’s was brought in for a particular area of expertise around mental health, which is quite narrow [...] Another problem is that we try to manage research projects that in reality are being managed by another institution. To ensure quality and timely delivery, this becomes operationally more difficult, as you are one step removed from the actual project.’ (KII, UK-PHRST)

The UK-PHRST team collaborated more closely with Oxford University on different research projects, including the clinical studies related to Lassa Fever in Nigeria. Oxford had full-time staff members employed at UK-PHRST, which reportedly led to greater involvement of Oxford in both research and deployments. However, as the research projects led by KCL and Oxford University are being completed, some of these full-time positions have ended, which reduces their interaction with UK-PHRST. Moreover, the decision not to include Oxford in the SMT meetings affected their ability to fully integrate and enhance collaboration with the UK-PHRST core team. It is important to note that all stakeholders who mentioned the challenges experienced working with KCL and Oxford also reflected on the ways forward in terms of working with academic partners in the future, as highlighted in the next finding.

Finding 3.17: There is wide consensus that the current consortium make-up would benefit from being more inclusive of a broader range of academic institutions, to adequately counter research gaps across multiple disciplines, and plans to do so in the next phase have already been outlined. A few stakeholders were concerned that the current consortium model leads to a narrower set of research proposals, in turn reducing the ability of UK-PHRST to counter research gaps across multiple disciplines adequately. UK-PHRST have been open to partnerships with other academic institutions. However, the challenge has been to identify academic institutions that are fully aligned with the UK-PHRST triple mandate and focus on operational research during outbreaks. Plans are already underway to increase flexibility in UK-PHRST’s academic partnerships, allowing the opportunity for a broader range of academic institutions to apply for research funds in the next phase of UK-PHRST. For example, UK-PHRST have already established collaboration with the University of Glasgow. This has the potential to improve the ability of UK-PHRST to respond adequately to the requests of partner countries for research support in

disciplines currently uncovered by UK-PHRST, such as WASH, environmental health, and risk communication.

Finding 3.18: Communication between UK-PHRST and DHSC has generally been good, but could be strengthened. The communication between UK-PHRST and the GHS DHSC Delivery Team is, reportedly, good, with weekly updates and regular discussions related to the approval process for deployments. However, some stakeholders from the wider PHE felt that information on key challenges and strategic opportunities is not sufficiently shared and discussed at the DHSC GHS Programme Board meetings. This is a perceived missed opportunity for addressing some of the issues at a higher level and for informing and influencing the overall strategic direction of UK-PHRST.

3.2.5 External communications

EQ3.7 To what extent do UK-PHRST effectively externally communicate their activities and impact?

High-level finding: EQ3.7	
<p>UK-PHRST recently scaled up external communication activities through novel platforms such as the UK-PHRST Knowledge Hub.</p> <p>At regional and country levels, UK-PHRST communicated effectively with a wide range of stakeholders during deployments and research projects. However, there is little evidence of how UK-PHRST disseminate research findings at country level to inform national policy dialogues and research uptake. A research dissemination and uptake strategy is yet to be developed.</p>	<div style="text-align: center;">  <p>1</p> </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 3.19: UK-PHRST have scaled up external communication activities and sharing of methods, tools and resources for outbreak response through existing and novel communication platforms such as the UK-PHRST Knowledge Hub. UK-PHRST share knowledge and results of their work through formal and informal channels, including the LSHTM website, external newsletters, webinars, Twitter posts, and the UK-PHRST Knowledge Hub. The latter was launched in June 2020 on the Global Health Network platform⁶⁹ as an interactive platform for sharing publications, resources and tools among researchers and practitioners. UK-PHRST team members felt that the UK-PHRST Knowledge Hub has created greater ownership of communication activities as they are directly managing the site and can easily share information without first having to go through several approval steps. UK-PHRST also support the Social Science in Humanitarian Action Platform (SSHAP), an online knowledge platform for sharing research on the social dimensions of emergency responses.

UK-PHRST have shared a broad range of existing and new methods, tools and resources for outbreak response with LMIC partners⁷⁰ through the UK-PHRST Knowledge Hub, other organisations' websites (e.g. Africa CDC), MOOCs, open access publications, TWGs, WhatsApp groups, and during deployments. Some of these tools, including two MOOCs and various data tools, are currently being evaluated. UK-PHRST recently developed a paper on their approach to learning which aims to strengthen knowledge sharing and learning with a wider range of partners. In addition, AARs have served as an important platform for sharing lessons learned within the UK-PHRST team and with external partners.

⁶⁹ www.uk-phrst.tghn.org

⁷⁰ These include, for example: 'DABA from a Lassa Study, data tool on the UK-PHRST Knowledge Hub. COVID-19 MOOC, outbreak response MOOC, MOOC framework to inform future MOOC design and delivery in the context of an outbreak. COVID-19 PERC data, Africa CDC COVID-19 IPC guidelines, training & research tracker, Africa CDC COVID-19 & Community Health Workers (hub)' (source: UK-PHRST 1.0 Logframe and Monitoring Sheet Final Jan2021).

Finding 3.20: While UK-PHRST have made efforts to reinforce external communications, there is still scope for improving overall coordination and implementation of communication activities. The UK-PHRST communication strategy is still pending due to human resource constraints. A communications manager based at LSHTM is spending only one day per week on UK-PHRST communication activities, which limits the ability to implement and follow-up effectively on various communications activities. Some stakeholders felt that the coordination of communications activities between LSHTM and PHE is constrained by the limited capacity and availability of the PHE communications team to work on UK-PHRST internal and external communications.

There is still no UK-PHRST logo and branded identity of UK-PHRST, and the two main consortium partners continue to use their own institutional branding for UK-PHRST activities. For example, the MOOC on outbreak response was branded entirely as LSHTM although it was a UK-PHRST activity. One stakeholder noted that it has been difficult to develop a joint logo due to changes in government communication guidelines for the use of logos and the creation of the National Institute for Health Protection. Some stakeholders felt that UK-PHRST could communicate more proactively and regularly with the wider PHE about their activities and results.

'They [UK-PHRST] probably prioritise academic outputs. There's certainly been very little communication with PHE more widely. I had to ask to be included in some communications. I don't think their activities are very visible potentially outside [their] very immediate network.' (KII, UK-PHRST Project Board member)

Finding 3.21: Efforts have been made to systematically document and disseminate lessons learned, including strengthened processes for collecting external feedback. UK-PHRST recently developed a paper on their approach to learning, focusing on how to reinforce the documentation and dissemination of lessons learned, both internally and to external stakeholders. This includes standardised methods and tools for collecting external feedback on UK-PHRST support, such as a written questionnaire and a stand-alone verbal debrief with external partners after deployments and capacity development activities.⁷¹ This is expected to further strengthen external communication and learning practices.

Finding 3.22: UK-PHRST communicated effectively with regional and country-level stakeholders during deployments and research projects. Regional and country partners in LMIC felt that UK-PHRST staff deployed to the field are communicating effectively before, during and after field visits and, most recently, during remote deployments. UK-PHRST are seen as highly responsive and transparent in their communications, which helps to build trust and establish collaborative partnerships. UK-PHRST staff are engaging with a wide range of partners, from senior government officials to front-line health workers, to identify needs and gaps and discuss how UK-PHRST can best contribute to outbreak responses or research activities. However, the triple mandate, the consortium model and the wide range of technical skills offered by UK-PHRST are not always consistently or explicitly communicated to partners at country level.

Finding 3.23: UK-PHRST have shared research results effectively with local stakeholders and partners involved in the research projects at country level. However, there is little evidence of how UK-PHRST dissemination activities target 'the right people' to influence national policy dialogues, and research dissemination and uptake strategy is still lacking. UK-PHRST have made some efforts to strengthen the link between research and response, including in the most recent implementation plan. While final research reports and articles are shared with national counterparts who have been involved in the research projects, there are few examples of how UK-PHRST contribute actively to the dissemination of research findings to senior policymakers to influence the national and related policy dialogue, except for the PPE/IPC Lassa Fever study in Nigeria that informed the revision of the national IPC guidelines for viral haemorrhagic fevers (VHFs). There is scope for UK-PHRST to improve active dissemination of research

⁷¹ UK-PHRST, 2020. UK-PHRST approach to learning.

findings at country level to a wide range of partners and a research dissemination and uptake strategy remains still to be developed. Such a strategy should recognise that it can take 17 years for research results to translate into changed practice, and the targets for research uptake and changed practice should be realistic and adjusted to the longer term.⁷²

3.2.6 UK-PHRST and the UK ODA health security programme landscape

EQ4 To what extent do UK-PHRST complement or duplicate other UK ODA health security?

EQ4.1 How effective are the mechanisms in place in the UK and at country level to ensure a coordinated/complementary UK response?

EQ4.2 In what ways have UK-PHRST augmented, complemented or duplicated pre-existing arrangements for deployment from the UK and other UK ODA-GHS programmes in partner countries?

High-level findings: EQ4, EQ4.1, EQ4.2	
<p>UK-PHRST do not duplicate other UK ODA health security programmes at UK, regional or country levels, given their unique profile as a rapid response team that offers support across the triple mandate. In some cases, UK-PHRST have made deliberate efforts to coordinate and complement other HMG GHS actors.</p> <p>For example, there are several examples of how UK-PHRST collaborated effectively with PHE IHR and FCDO/DFID to jointly plan activities at country level. However, these initiatives appear to remain at least partly reliant on individual initiatives at country level. There is no evidence of duplication between UK-PHRST and other UK deployment mechanisms. However, there is an opportunity for UK-PHRST to strengthen collaboration with other similar initiatives to identify concrete opportunities for joint deployments to enhance synergies and complementarity as well as knowledge sharing and mutual learning.</p>	<div style="text-align: center;">  <p>1</p> </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

How well do UK-PHRST coordinate with partners at country level?

Finding 4.1: UK-PHRST recognise the need for close collaboration and alignment of activities with other HMG GHS actors. There are good several examples of how UK-PHRST endeavoured to enhance coordination with the FCDO⁷⁰ and the PHE IHR Project at regional and country levels. In Nigeria, UK-PHRST collaborated closely with the PHE IHR Project, DFID⁷³ and the High Commission to support laboratory capacity strengthening for MiniON sequencing, as well as logistics training. Moreover, UK-PHRST and PHE IHR jointly developed a Monkey Pox project in collaboration with Nigeria CDC, integrating capacity development, research and laboratory support. At the onset of the COVID-19 pandemic, they collaborated to jointly support the NRL for scaling up PCR testing capacity.

In Cox’s Bazar, Bangladesh, UK-PHRST coordinated well with the FCDO and the WHO office to identify needs and priorities in the areas of rapid research and strengthening surveillance systems, case management, and lab equipment, as part of the COVID-19 outbreak response.

‘We’ve also tried to regularly have conversations [among] ourselves, FCDO, UK-PHRST and UK-EMT, exchanging info on how the [COVID-19] health response is going. This has

⁷² Morris, Wooding & Grant (2011) ‘The answer is 17 years, what is the question: Understanding time lags in translational research’. *Journal of the Royal Society of Medicine*. Available at: <https://journals.sagepub.com/doi/10.1258/jrsm.2011.110180>

⁷³ Now known as the Foreign, Commonwealth and Development Office (FCDO).

been useful and effective to keep communication flowing between core UK assets and interests.’ (KII, UK HMG)

In the DRC, the prolonged and repeated deployments to support the EVD outbreak response facilitated strong working relationships between FCDO/DFID and UK-PHRST. In Sierra Leone, UK-PHRST engaged actively with FCDO by joining monthly FCDO GHS calls, and proactively notifying FCDO/DFID when they are going on deployments. UK-PHRST also collaborated with FCDO/DFID and the PHE IHR Project to conduct a rapid needs assessment for the mudslide response.

At regional level, UK-PHRST partnered with the PHE IHR Project to support Africa CDC in the design of a COVID-19 sero-surveillance study. The work of the PHE IHR Project and UK-PHRST is viewed as complementary as UK-PHRST provide technical support in specific disciplines while PHE IHR focuses on broader governance and health systems strengthening. For example, the PHE IHR Project built upon UK-PHRST’s initial training needs assessment of Africa CDC’s Epidemic Response Team (ERT) for Africa CDC by supporting the establishment of a database for the much larger African Volunteer Health Corps AVoHC volunteers.⁷⁴

While UK-PHRST have collaborated effectively with the FCDO in some instances, there is a need to communicate more proactively and consistently with FCDO at country level to increase their awareness of the UK-PHRST remit and explore opportunities for collaboration and complementarity between UK-PHRST and other HMG GHS programmes.

How effective are the mechanisms for collaboration between UK-PHRST and other HMG GHS programmes at UK level?

Finding 4.2: Efforts have been made to enhance the effectiveness of existing coordination mechanisms at HMG central level to ensure the best possible coherent UK response. While examples of good coordination and engagement exist, they appear to remain at least partly reliant on individual initiatives at country level. The DHSC GHS Programme Board provides a mechanism for high-level coordination between the different HMG GHS actors, including UK-PHRST, FCDO and PHE GHS programmes. The senior leadership of UK-PHRST participate regularly in these meetings, which enhances their understanding of the wider HMG GHS Programme and provides an opportunity for asking questions and bringing issues to the table. However, some stakeholders mentioned that the fact that the GHS Programme Board covers numerous programmes limits the opportunities for in-depth strategic discussion about UK-PHRST and cross-programme coordination. DHSC is currently reviewing the GHS Programme Board and its links with the Project Boards of the five HMG GHS programmes.

Finding 4.3: UK-PHRST have made efforts to reinforce collaboration with the PHE IHR Project at central level, although some stakeholders mentioned that more needs to be done to enhance the synergies to ensure an even more productive partnership. UK-PHRST and the PHE IHR Project have recently communicated and have conducted more frequent meetings to develop strategies for enhanced collaboration at UK and country levels.

‘We have set up regular meetings with IHR, but they were not at a particularly strategic level before, whereas we have now set up additional meetings with a strategic focus, predominantly to look at IHR and UK-PHRST countries, so we know what each other are doing to reduce duplication and look at capacity development, because this is where

⁷⁴ The ERT at that time was a group of approximately 60 personnel embedded across various countries, including Cameroon, DRC, Nigeria, South Africa, and Cote D’Ivoire, while those at African Union regional collaborating centres provide a two-way channel for data validation and technical support. The African Volunteer Health Corps (AVoHC) is a network of African medical and public health professionals, established by the African Union to support the response to public health emergencies in Africa. AVoHC provides a mechanism for the rapid deployment of experts from African Union Member States, including epidemiologists, laboratory scientists, communications professionals, logisticians, data managers, physicians and social scientists.

the overlap is the strongest. This is now happening, and it is now a regular feature.’ (KII, UK-PHRST)

Nevertheless, the meetings have focused primarily on information sharing and how to avoid overlap at country level, while strategic discussions about specific opportunities for collaboration and joint initiatives have yet to occur.

Finding 4.4: Closer collaboration and alignment between UK-PHRST and other deployment organisations and their funders is needed to enhance complementarity and joint learning, thereby benefiting the overall UK response and that of UK-PHRST. There is a number of parallel UK deployment mechanisms in addition to UK-PHRST. These include UK-EMT, the PHE field service, the public health agencies of Scotland, Wales and Northern Ireland, who mainly deploy through GOARN, and the Abdul Latif Jameel Institute for Disease and Emergency Analytics, which is administered by Imperial College London. UK-EMT and UK-PHRST have a common mandate, as they both offer emergency response capacity. While UK-EMT primarily focuses on clinical care and UK-PHRST on broader public health, potential overlaps occur in areas of clinical case management, IPC, laboratory diagnostics and preparation of staff, all of which warrant closer collaboration and coordination.

In the past year, UK-PHRST have communicated more regularly with the FCDO and have established a working group with UK-EMT at UK level to discuss ways for the teams to avoid overlap and to liaise deployments. However, this has not yet translated into improved coordination of deployments at country level.⁷⁵ The sub-optimal collaboration may in part be due to the fact that the FCDO is the coordinating body for the UK-EMT, and the DHSC is the coordinating body for UK-PHRST. As noted by one stakeholder, coordination therefore needs to be reinforced at a strategic level between the FCDO and the DHSC in order to enhance collaboration between the EMT and UK-PHRST at operational level. The need still exists to strengthen UK’s external appearance as ‘One UK GHS Team’, as partners at country level continue to find it difficult to distinguish between UK-PHRST, the PHE IHR Strengthening Project and UK-EMT.

3.2.7 Coherence and collaboration at country, regional and global levels

EQ5 To what extent have UK-PHRST supported coherent and collaborative national and international health activities on response?

EQ5.1 How effective is UK-PHRST’s external engagement with key strategic health actors nationally, regionally and globally?

EQ5.2 How effective is the joint UK-PHRST/DHSC/DFID/HMG engagement with WHO HQ, GOARN and WHO-AFRO, and how could this be improved?

EQ5.3 How effective are UK-PHRST’s working relationships with GHS programmes from other organisations and how could they be improved?

EQ5.4 Does the work of UK-PHRST complement or duplicate similar initiatives from other countries/organisations?

⁷⁵ In the past, UK-PHRST only deployed with UK-EMT on one occasion, to support an outbreak of diphtheria in Bangladesh. Recently, both teams deployed simultaneously to Cox’s Bazar, Bangladesh, to support a cholera outbreak, although there is mixed evidence of how well they coordinated their support.

High-level findings: EQ5, EQ5.1, EQ5.2, EQ5.3, EQ5.4	
<p>UK-PHRST have coordinated effectively with other strategic health actors at national, regional and international level, both during deployments and research activities. They take a proactive role in coordinating activities with other partners, especially during bilateral deployments, which has helped prevent duplication and overlap between UK-PHRST and other programmes at regional and country levels.</p> <p>UK-PHRST have a strong partnership with GOARN and are generally viewed as a highly qualified and reliable partner for outbreak responses. UK-PHRST have enhanced collaborative partnerships with a number of regional institutions, especially during the COVID-19 pandemic. The shift to remote working facilitated effective virtual coordination with other GHS partners at regional and country levels, which helped prevent duplication and overlap with similar initiatives from other countries and organisations.</p> <p>Beyond GOARN and bilateral partnerships at country level, UK-PHRST have not sufficiently assessed other avenues for outbreak response, e.g. through the Inter-Agency Standing Committee (IASC), and with prominent international outbreak response actors including IASC, NGOs (MSF, Save the Children) and the ICRC. This could be improved by proactively establishing communication and collaboration with those partners, in particular with the IASC.</p>	 <p>3: Evidence comprises few data sources across limited stakeholder groups (limited triangulation) and is perception-based, or generally based on data sources that are viewed as being of lesser quality.</p>

Finding 5.1: UK-PHRST coordinated effectively with national and international actors during deployments and research activities. They take a proactive role in collaborating and aligning with other partners, especially during bilateral deployments. When deploying through GOARN, UK-PHRST operate under the overall coordination led by the WHO country office. During bilateral deployments, they take a more proactive role in aligning with government priorities and coordinating their work with other partners. There are several examples of UK-PHRST engaging with a wide range of national and international partners, from operational to senior government level, to identify needs and gaps in order to understand how best to contribute and position themselves within the broader landscape.

UK-PHRST have increasingly received bilateral requests for technical support from governments in LMIC and have established research projects with partners in a number of countries. This has enabled them to build strong bilateral partnerships with national institutions, for example in Bangladesh, The Gambia, Nigeria, Sierra Leone, and Sudan, in addition to Africa CDC. Overall, these bilateral partnerships are seen as being most supportive of being able to work across the triple mandate and contribute towards programme outcomes. UK-PHRST appear to have made great efforts to align objectives and work closely with senior Ministry of Health leaders who were requesting their support and approving the deployments.

In Nigeria, UK-PHRST have established a strong partnership with Nigeria CDC and the NRL as well as regional hospitals. In Sudan, UK-PHRST successfully engaged with the Federal Ministry of Health, National Public Health Laboratory, Kassala State Ministry of Health and Kassala University, for the implementation of a research study using metagenomics investigating a chikungunya outbreak in Kassala. The research study laid the groundwork for future partnerships and led to a subsequent visit to Sudan in February 2020 to identify needs and jointly plan activities to strengthen outbreak response capacity together with national counterparts.⁷⁶

In the DRC, UK-PHRST are also acknowledged for their excellent collaboration with other governmental and non-governmental actors and partners on the ground supporting the EVD outbreak in Kivu. In Bangladesh, UK-PHRST liaised and collaborated effectively with a broad range of partners⁷⁷ to enhance coordination of support to the cholera outbreak response in Rohingya Refugee camp. UK-PHRST currently

⁷⁶ However, the implementation of these activities remains on hold due to the COVID-19 pandemic.

⁷⁷ During the cholera outbreak, UK-PHRST collaborated effectively with MoH, Cox's Bazar Emergency Centre, UNHCR, IOM, UNICEF, International Centres for Diarrhoeal Disease Research, Bangladesh IEDCR/IEDCR-FL, FCDO, UK-EMT, Save the Children and Relief International. Source: UK-PHRST Bangladesh deployment - Cholera - End of Mission Report.pdf

collaborates closely with WHO, Red Cross and MSF to jointly support a COVID-19 seroprevalence study in Cox's Bazar.

Finding 5.2: The shift to remote working during COVID-19 facilitated UK-PHRST's coordination with other GHS partners at regional and country levels, which helped prevent duplication and overlap. UK-PHRST team members actively participated in virtual meetings and TWGs that served as platforms to coordinate multiple interventions. For example, UK-PHRST were invited to participate in various virtual TWGs with Africa CDC, Nigeria CDC, Bangladesh and The Gambia during the height of the COVID-19 outbreak. Their contribution to these TWGs reportedly strengthened coordination between UK-PHRST and other GHS programmes supporting the COVID-19 outbreak response. Regional and national partners appreciated UK-PHRST's technical contribution to these TWGs and their responsive and collaborative working style.

Finding 5.3: UK-PHRST contributions are generally highly regarded by GOARN and WHO. However, there is concern that the quality of UK-PHRST work could be compromised as more junior staff are deploying. GOARN/WHO appreciate UK-PHRST as an exceedingly reliable partner for outbreak response, offering excellent technical expertise, and ensuring effective and rapid deployment. The UK-PHRST team are generally viewed as flexible and adaptive, well aligned with the priority pillars of GOARN/WHO and working well in partnership with a wide range of other stakeholders at regional and country levels. For example, UK-PHRST contributions to the DRC EVD outbreak, Nigeria CDC Lassa Fever outbreaks, cholera and COVID-19 outbreaks in Bangladesh, and Africa CDC during COVID-19, are all regarded as critical to outbreak response in both quality and efficacy.

The Director of the UK-PHRST is a member of the GOARN Steering Committee and is the Co-Chair of the GOARN Research Working Group,⁷⁸ contributing to a strong partnership between UK-PHRST and GOARN/WHO. An opportunity exists to improve the bridge between UK-PHRST's capacity development work, such as the MOOC, with the WHO Academy, to enhance synergies and cross-programme linkages.

Furthermore, some stakeholders mentioned that, on some occasions, UK-PHRST deployed junior staff with limited overseas experience through GOARN, without the necessary guidance and support from more senior UK-PHRST staff. This was perceived by GOARN as less beneficial as compared to the deployments of senior UK-PHRST experts. As UK-PHRST aims to strengthen capacity among a wider network of both junior and senior staff across the UK, there is a need to ensure proper training and preparation of these experts before deploying, and pairing junior staff up with more experienced experts wherever possible.

Finding 5.4: UK-PHRST have established partnerships and collaborated effectively with numerous regional and global institutions, including Africa CDC, WHO-AFRO, the West African Health Organization (WAHO), the East, Central and Southern African Health Community (ECSA-HC), the International Federation of the Red Cross (IFRC) and the United Nations Children's Fund (UNICEF). UK-PHRST have progressively made a strategic shift to increase their focus on regional institutions in order to broaden impact on more countries, which was further accelerated by the COVID-19 pandemic since international travel was restricted. Working with regional institutions is viewed as a more sustainable and long-term way to build outbreak response capacity at regional and country levels.

'I think the shift to support regional institutions was the right one. It is a good move strategically, instead of supporting individual countries. The difference is that everyone was supported through the regional focus. The need was so great, and that has probably forced prioritisation.' (KII, UK-PHRST)

⁷⁸ UK-PHRST, 2018. UK Public Health Rapid Support Team Annual Review.

As described in the case study on Africa CDC (**Section 3.3.1** and **Annex 7**), UK-PHRST have established a strong partnership with Africa CDC. This partnership recently led to a joint UK-PHRST, Africa CDC and IPD mission to The Gambia to assess their emergency preparedness and response capacity. Africa CDC stakeholders felt that UK-PHRST collaborated effectively with US CDC, China CDC and other bilateral and multilateral partners who supported Africa CDC during the COVID-19 pandemic, avoiding overlap or duplication.

UK-PHRST also contributed to strengthening regional collaboration between WHO-AFRO, Africa CDC, WAHO and the ECSA-HC. UK-PHRST/LSHTM supported the development of a joint regional research project to assess the impact of COVID-19 on mental health in Africa, which led to more regular meetings and strengthened collaboration between these regional organisations. UK-PHRST also collaborated closely with WHO-AFRO on both infodemic⁷⁹ management and risk communication, as well as community engagement networks led by IFRC and UNICEF with the participation of WHO and WHO-AFRO. Further, UK-PHRST contributed to a regional initiative that aims to strengthen collaborative social science research for epidemic response in the West African region, by introducing the West Africa Social Science Epidemic Response Network (WASSERN). The initiative was kickstarted at a meeting in July 2019 by researchers from Sierra Leone, Nigeria, The Gambia and Liberia, with support from the Ministry of Health and Sanitation Sierra Leone and UK-PHRST.

Finding 5.5: Across the GHS landscape, UK-PHRST appear to be unique in having a full-time team dedicated to outbreak response with an explicit mandate to combine deployments with both research and capacity development into a single provision to partner countries. There is no evidence that UK-PHRST are overlapping with other rapid response teams and similar initiatives. As described in the mid-point evaluation report, several other partners, including the AU, the EU and Japan International Cooperation Agency, all deploy public health teams in support of health emergencies. None of these has a mandate to conduct research and capacity development. US CDC supports outbreak response, capacity development and research, but these activities are not integrated nor conducted by a single team. Compared to these other mechanisms, UK-PHRST are viewed by stakeholders as unique in terms of their ability to: deploy quickly and early; offer continuity of support via rolling deployments; deploy a multidisciplinary team across manifold response pillars; and provide exceptional levels of technical expertise. While other major deployment mechanisms mainly support the national level, UK-PHRST are applauded for working at district level and in less secure environments such as the DRC.

A few other entities are similar to the UK-PHRST model, including: i) the Outbreak Research Team of the Institute of Tropical Medicine, Antwerp; ii) the German Epidemic Preparedness Team (SEEG); iii) the Epicentre, an agency of MSF who provide field epidemiology, capacity development and research support to MSF; and iv) the Dutch Development Cooperation agency, who have a large roster of experts who can be deployed quickly and do a lot of capacity development in emergency settings. The Antwerp mechanism has plans to establish a similar mechanism to UK-PHRST.

In general, UK-PHRST seem to have made efforts to identify other partners and initiatives working on the outbreak response when deploying to a specific country. However, there is no indication that they collaborated directly with these other deployment mechanisms, either at international or country level, to enhance complementarity and synergies.

Finding 5.6: There is an unexploited opportunity for UK-PHRST to strengthen collaboration with NGOs and global actors involved in humanitarian emergency response. This could help better maximise UK-PHRST's contribution and complementarity with other actors in humanitarian contexts. UK-PHRST have collaborated primarily with WHO (HQ, GOARN and country offices), MoH and regional and national

⁷⁹ According to Merriam-Webster's dictionary, Infodemic is 'a blend of "information" and "epidemic" that typically refers to a rapid and far-reaching spread of both accurate and inaccurate information about something, such as a disease. As facts, rumors, and fears mix and disperse, it becomes difficult to learn essential information about an issue. Infodemic was coined in 2003, and has seen renewed usage in the time of COVID-19'. Available at: Infodemic: An Epidemic of Information | Merriam-Webster (merriam-webster.com)

institutes of public health, when deploying to an outbreak response or engaging in research with LMICs. There are only a few examples of collaboration with NGOs such as MSF and Save the Children. Some stakeholders felt that UK-PHRST should strengthen collaboration with NGOs, as they often implement long-term projects and have a strong presence and knowledge of the contexts that they work in. Also, there seems to be an unexploited opportunity for a stronger collaboration with the IASC, which brings together the UN, other global organisations and NGOs involved in outbreak response.⁸⁰ Stakeholders felt that the future is focused on continental partnerships and promoting leadership in-country, and that UK-PHRST should therefore strengthen collaboration with such partners, including establishing linkages with the IASC in the next phase of the programme.

'UK-PHRST has not got any engagement with the IASC structure. [...] They missed out on who the major response actors are in humanitarian response and limited themselves to public health response specific to outbreaks [...] We need to work with all these organisations and we need to maximise the importance of continental leadership in delivering another century of public health themselves, instead of relying again on the UN or bilateral support from the UK.' (KII, UK HMG consortium staff)

There is some indication that UK-PHRST are aware of these opportunities and have discussed how UK-PHRST fit into complex humanitarian emergencies in a more efficient way, and how they can bridge the gap with other international groups working on building response capacity at country and regional levels. They intend to explore how internationally deployable standing capacity can be maximised in collaboration with other partners, using a networked approach for better effectiveness.

Finding 5.7: UK-PHRST can maximise their complementarity to other similar global or regional initiatives by strengthening collaboration and coordination with partners offering long-term capacity development at regional or country level. Many stakeholders mentioned that UK-PHRST will inherently always be limited in their ability to provide long-term capacity development since they do not have any permanent presence in partner countries and have limited capacity to work effectively across the triple mandate.

'How do you make that bridge between the short and long term and what has to happen to prevent the next emergency? It was more difficult in the past, because the funders did not exist for that kind of thing [develop long-term and sustainable capacity]. But this has changed completely. [...] Now it is clear that there are mechanisms that can be used to do and UK-PHRST should be thinking about that [...] I don't think it's their responsibility to do it, but it is their responsibility to think about what is necessary to make the bridges with organisations that could do it.' (KII, UK HMG)

There is an obvious opportunity for UK-PHRST to develop a partnership strategy with programmes such as PHE IHR Strengthening or the DHSC Fleming Fund and country-specific action plans that foster those linkages and ensure that UK-PHRST contribution to capacity development, whether it is provided remotely or in-country, is complementary to the support of these other initiatives. To maximise these synergies, UK-PHRST could 'hand over' certain activities to these other actors to continue the support to partners and thus enhance the sustainability of capacity development efforts initiated by UK-PHRST. Similarly, stakeholders in the Global South highlighted that long-term relationships are fundamental to the effectiveness of the collaboration and capacity development, and that UK-PHRST should prioritise their scarce resources to provide continuous support to selected partners either at regional or country level. As

⁸⁰ IASC is the 'highest-level humanitarian coordination forum of the UN system, bringing together the executive heads of 18 UN and non-UN organizations to ensure coherence of preparedness and response efforts, formulate policy, and agree on priorities for strengthened humanitarian action'. ICRC (Red Cross), MSF, and Save the Children are members of the IASC. Source: <https://interagencystandingcommittee.org/the-inter-agency-standing-committee>

discussed in **Section 3.1.2**, UK-PHRST are conscious of this opportunity and have already discussed how to build closer links between UK-PHRST and PHE IHR in order to transition from response to longer-term capacity development and system strengthening.

3.3 Workstream 3: Performance

This section explores UK-PHRST’s performance to date in terms of results at outcome level against the revised ToC across the different areas of the triple mandate. This is followed by a review of contextual factors that affected progress towards outcomes and unintended outcomes of UK-PHRST’s activities. Finally, the sustainability, transparency and value for money of the programme (against DFID’s 4Es of VfM: effectiveness, efficiency, economy and equity) have been assessed, and an evaluation of current MEL systems used by the programme is provided.

3.3.1 Progress against programme goals

EQ6 What contribution are UK-PHRST’s deployment, research and capacity building outputs making to achieve programme outcomes?

EQ6.1 To what extent have programme goals (desired outcomes and impact) been achieved?

EQ6.2 How have UK-PHRST contributed to, or how are they likely to contribute to, these outcomes and intended impact?

High-level findings: EQ6, EQ6.1, EQ6.2	
<p>There is evidence of positive contribution of UK-PHRST, especially to STOs 1 (on response) and 3 (on capacity development). UK-PHRST work is likely to have made a positive difference to cholera and COVID-19 responses in Cox’s Bazar (Bangladesh), as well as to Africa CDC’s COVID-19 response. There is also evidence of capacity having been developed as a consequence of UK-PHRST’s interactions with Africa CDC, Nigeria CDC and Cox’s Bazar.</p> <p>Evidence of UK-PHRST’s research findings being applied by the team and partners to influence response and/or policymaking in LMICs remains, to date, limited (STO2), with the notable exception of research on PPE for Lassa Fever directly influencing Nigeria CDC IPC for VHF guidelines.</p> <p>While it is plausible that the programme has made a positive contribution to intermediate and longer-term outcomes, there is insufficient evidence to express a definitive judgement at this stage.</p>	 <p>2: Evidence comprises multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources (limited triangulation) of decent quality but that are perhaps more perception-based than factual.</p>

Finding 6.1: Evidence from our KIIs and document review suggest that UK-PHRST have positively contributed as part of wider outbreak response on a number of occasions (STO1). To cite the most noticeable examples:

- **Through multiple deployments and remote support to Cox’s Bazar, UK-PHRST contributed to improve timeliness and quality of response to different outbreaks including cholera in December 2019 and COVID-19 in March 2020.** The team did so by deploying skilled technical experts that were able to quickly plug capacity gaps among country partners in alignment with urgent needs. In the context of the current COVID-19 pandemic, they have contributed to the provision of epidemiological and data analytics that supported WHO to undertake development of surveillance strategy, situation reports, data systems for capturing and visualising case information (including automated sitreps and a dashboard for use by partners), on which to base public health decision making (see summary in **Box 2** below and **Annex 9** for the full case study).

- **In 2020 UK-PHRST strengthened response by Africa CDC to COVID-19 through four main avenues:** 1) Deployment of a multidisciplinary team of seven people (face-to-face initially, then remote) which contributed to provide surge capacity at the start of the COVID-19 outbreak in Africa; 2) Provided support to set up alert, testing and contact tracing systems, airport monitoring, and data systems which increased the epidemiology support available to Africa CDC; 3) Supported the development of regional IPC guidelines which are now in use by member states, which strengthened IPC, and 4) Developed lab/diagnostics policies/SOPs/equipment and reagent specs to guide COVID-19 response (see summary in **Box 3** below and **Annex 7** for the full case study).
- **UK-PHRST contributed to the effective response by Nigeria CDC to two Lassa Fever outbreaks in 2018 and 2019, and to the establishment of COVID-19 testing and sequencing capacity in early 2020, by providing cutting-edge technical knowledge and skills in a wide range of disciplines.** As far as supporting the Lassa Fever outbreak response in 2018 and 2019, they contributed to the rapid deployment of multidisciplinary experts, to the provision of epidemiology and surveillance support, to case management and to logistics. UK-PHRST are also credited with building Nigeria CDC capacity for next generation sequencing for Lassa Fever and Monkey Pox, which has enabled Nigeria CDC to conduct sequencing of other pathogens using domestic capacity, including COVID-19 (see case study summary in **Box 4** below and **Annex 8** for the full case study).
- **PHRST provided additional human resources and tools to strengthen the EVD response in the DRC over a long period of time.** UK-PHRST have been supporting WHO–GOARN’s response to the EVD outbreak continuously from May 2018 to January 2020. As part of their support, UK-PHRST established an epidemiological analytical data cell to provide routine and advanced analyses for the strategic coordination of the response. As the work of the cell progressed and became more established, the analytical data began to influence decision making; although, as our mid-point case study found, there was scope to strengthen the use of the analysis to better inform management decisions (see **Annex 20**, mid-point evaluation report)⁸¹ and to turn this opportunity into a more deliberate capacity development effort.⁸²

Finding 6.2: Evidence of UK-PHRST’s research findings being applied by the team and partners to influence response and/or policymaking in LMICs remains, to date, limited (STO2). UK-PHRST experience here aligns with a common challenge across the academic and global health sectors of integrating research into practice, which can take many years.⁸³ While UK-PHRST’s contribution to wider outbreak response in most contexts where the team intervened is relatively well evidenced, examples of research findings or tools developed by UK-PHRST being applied in future outbreak response or in policymaking at country level are rare. The most cited exception to this is research conducted by the team on the use of PPE during Lassa Fever outbreaks in Nigeria, which informed the revision of national guidance for IPC for VHF. The research also informed an adaptation of training protocols and logistical support to the Lassa Treatment Centres (LTCs) (see Nigeria CDC case study summarised in **Box 4** below and in full in **Annex 8**).

Finding 6.3: Since the mid-point evaluation was conducted, evidence of in-country capacity for outbreak prevention and response in LMICs as a result of interactions with UK-PHRST has increased (STO3). It is likely that this has been enabled by the organic shift to more remote support (which, by definition, implies guiding others through how to do things rather than doing them oneself, as well as a stronger integration between the three elements of UK-PHRST’s mandate) and by an enhanced focus on capacity development. Evidence from the case studies shows, for instance, that:

- In Cox’s Bazar, evidence suggests improvements in the overall capacity of the COVID-19 response in Cox’s Bazar are associated with UK-PHRST support to strengthen surveillance

⁸¹ Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

⁸² UK-PHRST epidemiologists were leading the epidemiologic analyses rather than training local epidemiologists.

⁸³ Morris, Wooding & Grant (2011) ‘The answer is 17 years, what is the question: Understanding time lags in translational research’. *Journal of the Royal Society of Medicine*. Available at: <https://journals.sagepub.com/doi/10.1258/jrsm.2011.110180>

strategies and epidemiological mechanisms, streamlining of procedures, and development of laboratory guidance and SOPs (see **Box 2**).

- There was strong qualitative evidence from key informants that UK-PHRST contributed to vital improvements in important in-country capacity, through the creation, training and mobilisation of various cohorts of rapid responders who made a critical impact on outbreak prevention and response across Africa CDC member states. There was also agreement that a continent-wide rumour tracking system was an important area of outbreak response capacity (see **Box 3**).
- There is also evidence to suggest that Nigeria's outbreak response capacity has been reinforced by UK-PHRST through continuous capacity development of national institutions across multiple disciplines (see **Finding 6.1** about the establishment of Nigeria CDC COVID-19 testing and sequencing capacity).

Finding 6.4: While it is plausible that the programme has made a positive contribution to higher-level results, there is insufficient evidence to express a definitive judgement. Given the evidence we could collect of contribution to effective response to outbreaks and capacity developed for prevention, detection and response at STO level, and given the overly positive feedback the end-point evaluation collected from a vast majority of national counterparts, it is likely that UK-PHRST have made a difference to some degree to the ToC's longer-term outcomes, but this cannot, unfortunately, be corroborated by enough evidence at this stage.

Box 2: Cox's Bazar, Bangladesh – Case Study Summary

Context

As of 2020, in response to extreme violence, an estimated one million members of the Rohingya ethnic group have crossed from Myanmar's Rakhine state into Bangladesh in several waves of displacement, 860,000 of whom have settled in two registered and 32 unregistered camps in Cox's Bazar. UK-PHRST have deployed team members to Cox's Bazar four times since December 2017 in response to an outbreak of diphtheria (December 2017–January 2018, UK-EMT; February–March 2018, WHO/GOARN); acute watery diarrhoea (November–December 2019), and COVID-19 (multiple deployments, March–November 2020), providing support to the wider disease response in the fields of epidemiology, microbiology and IPC.

STO1 'UK-PHRST contribute effectively as part of wider outbreak response'

UK-PHRST were perceived by stakeholders to provide a consistent and high level of expertise in support of disease responses in Cox's Bazar, across diphtheria, cholera and COVID-19 deployments. In the case of the COVID-19 outbreak, the effectiveness of UK-PHRST contributions to wider outbreak response was attributed to the ability of UK-PHRST deployees to integrate 'seamlessly' and 'hit the ground running', taking advantage of previously established relationships and accumulated familiarity with the context, and working effectively with existing WHO capacity and national laboratory staff. UK-PHRST activities were considered to be operationally focused and aligned with the needs in Cox's Bazar. Improvements to the surveillance system, case reporting and streamlining processes appear to have been particularly welcome as a UK-PHRST contribution to the effectiveness of the overall disease response architecture in the camps.

STO 2 'Research findings are applied by UK-PHRST and partners in outbreak response and inform LMIC policymaking'

Research needs for a seroprevalence study, identified during a UK-PHRST deployment (COVID-19 microbiology deployment, August–September 2020) and operationalised in September 2020 using UK-PHRST's rapid research protocols, are intended to inform the next phase of the COVID-19 response in Cox's Bazar. The survey analysis will help to refine and configure the response to COVID-19 in Cox's Bazar to balance and prioritise resources for epidemic response and support for routine health care facilities. Stakeholders internal and external to UK-PHRST perceived the seroprevalence study as demonstrating both effective integration of research in deployment and the ability to flex quickly using rapid research protocols to the wider needs of outbreak response in an LMIC.

STO3 'Improved UK and in-country capacity for outbreak prevention and response in LMICs'

Evidence to suggest improvements in the overall capacity of the COVID-19 response in Cox's Bazar are associated with UK-PHRST support to strengthen surveillance strategies and epidemiological mechanisms, streamlining of procedures, and development of laboratory guidance and SOPs. Stakeholders referenced the effective integration of UK-PHRST team members as key to facilitating informal and integrated capacity development of national staff, and UK-PHRST team members deployed underscored the significance of established relationships built over multiple deployments as contributing to the success of deployments.

Intermediate Outcome: 'UK and global response to epidemics improves in speed and quality'

There is insufficient evidence on the Cox's Bazar deployments to support the intermediate outcome of improved UK and global response to epidemics. It is also difficult to ascertain whether improved capacity for outbreak prevention in response in Cox's Bazar will be maintained longer-term, as the dynamics of the Rohingya humanitarian crisis and short-term structures and resources shift.

Box 3: Africa CDC – Case Study Summary

Context

UK-PHRST started working with Africa CDC in 2018 by supporting training for their rapid response team. This started a positive partnership, which complements the PHE IHR Project's subsequent ongoing support. The next key support provided by UK-PHRST was towards Africa CDC's 2020 COVID-19 response.

STO1 'UK-PHRST contribute effectively as part of wider outbreak response'

The deployment of expert personnel to Africa CDC at the start of the COVID-19 pandemic in Africa provided vital surge capacity in the critical initial stages of the pandemic. This ensured that Africa CDC were able to provide vital support to member states, which ultimately helped to mitigate the impact of the pandemic in Africa.

UK-PHRST contributed to these areas through provision of key outputs, including: rapid, timely and successful deployments; provision of valuable and essential expertise and capacity development; and successful collaborative partnerships. UK-PHRST provided an important contribution via deployment of the single largest team to Africa CDC: seven multidisciplinary experts across epidemiology, IPC, laboratory, social science, logistics and clinical case management. IPC support in particular was seen as important, and included development of regional IPC guidelines which were subsequently rolled out to and used by member states. Support to other areas, including epidemiology and laboratory, was also considered valuable; however, UK-PHRST's support in these areas was in the context of wider support from US CDC, WHO and China CDC amongst others.

STO 2 'Research findings are applied by UK-PHRST and partners in outbreak response and inform LMIC policymaking'

Research activities (including seroprevalence surveys and mental health research) by UK-PHRST were in very early stages at the time of the evaluation, and so no contribution towards this short-term outcome could be ascribed.

STO3 'Improved UK and in-country capacity for outbreak prevention and response in LMICs'

There was strong qualitative evidence from key informants that vitally important in-country capacity had been improved through the creation, training and mobilisation of various cohorts of rapid responders who made a critical impact on outbreak prevention and response across member states. There was also agreement that a continent-wide rumour tracking system was an important area of outbreak response capacity, given prior outbreaks wherein rumours contributed towards mistrust of, and attacks on, health personnel.

UK-PHRST contributed to these areas through provision of key outputs, including: provision of valuable and essential expertise and capacity development; and successful collaborative partnerships.

UK-PHRST conducted a training needs assessment, supported development of the training curriculum and provided some initial training for the Epidemic Response Team (ERT) in 2018. This work was subsequently used by Africa CDC to inform training and curriculum development for the much larger AVoHC. Further training was designed and rolled out during the COVID-19 pandemic for the ERT, AVoHC and community health workers with UK-PHRST's involvement. While other partners (including US CDC, WHO, EU and others) provided financial and/or technical support, UK-PHRST's support with the needs assessment, development of the curriculum, and facilitation of key sessions, were seen as pivotal even in the context of other partners' commitments. UK-PHRST also provided pivotal social science support, which included the creation of a novel continental rumour tracking system. KIIs and background documents indicated that UK-PHRST was the only partner involved in setting up this system and, as such, UK-PHRST's contribution towards this is considered vital.

Intermediate Outcome: 'UK and global response to epidemics improves in speed and quality'

It was not considered feasible to measure UK-PHRST's or other partners' contribution towards this outcome at this stage, although it can be considered that the contributions at short-term outcome level to all result in some level of contribution at intermediate outcome level.

Box 4: Nigeria CDC – Case Study Summary

Context

UK-PHRST contributed to strengthening outbreak response capacity in Nigeria across the triple mandate through multidisciplinary deployments to support Lassa Fever outbreaks, research projects on Lassa Fever and Monkey Pox, and capacity development of key institutions. UK-PHRST established a strong collaborative partnership with Nigeria CDC and provided high-quality technical support which facilitated the achievement of outputs and contribution to STOs.

STO1 'UK-PHRST contribute effectively as part of wider outbreak response'

Nigeria experienced two unusually severe outbreaks of Lassa Fever in 2018 and 2019. Nigeria CDC effectively responded to these two outbreaks with the support of partners. UK-PHRST contributed to the outbreak response by providing cutting-edge technical knowledge and skills to Nigeria CDC. Two multidisciplinary teams of epidemiologists, clinical specialists and logisticians deployed to Nigeria in 2018 and 2019 to assist the Emergency Operations Centre (EOC) across the pillars of surveillance, data management, case management, research, and logistics. Other partners also contributed to the outbreak response, including WHO, US CDC, African Field Epidemiology Network, University of Maryland of Nigeria, E-Health Africa, Robert Koch Institute (RKI), Alliance for International Medical Action, and MSF.

STO 2 'Research findings are applied by UK-PHRST and partners in outbreak response and inform LMIC policymaking'

The revision of national guidelines and training approaches for IPC/PPE for VHF, including Lassa Fever, was informed by a research study conducted by UK-PHRST in collaboration with Nigeria CDC. However, there is no evidence that these guidelines have yet been operationalised or used to improve outbreak response. UK-PHRST and Nigeria CDC jointly conducted a systematic review to identify knowledge gaps related to IPC for Lassa Fever. This led to the development of a research study which aimed to better understand how PPE was used at health facilities during Lassa Fever outbreaks. The results of this study informed the revision of the national guidelines for IPC for VHF. No other partner contributed directly to this research study. However, several other partners also participated in the revision of the national guidelines.

STO3 'Improved UK and in-country capacity for outbreak prevention and response in LMICs'

Nigeria's outbreak response capacity has been reinforced through continuous capacity development of national institutions across multiple disciplines. During the Lassa Fever deployments, UK-PHRST provided formal and informal training to EOC staff and front-line health workers in the areas of epidemiological analysis, data management, case management, laboratory diagnostics, clinical research and logistics at both national and sub-national levels. UK-PHRST are also credited with building Nigeria CDC capacity for next generation sequencing for Lassa Fever and Monkey Pox, which has enabled Nigeria CDC to conduct sequencing of other pathogens using domestic capacity, including COVID-19. The Monkey Pox programme was a joint initiative of Nigeria CDC, UK-PHRST and PHE IHR. Other partners who have engaged in capacity development include WHO, US CDC, RKI and MSF, although there is no evidence of specific activities and results.

Intermediate Outcome: 'UK and global response to epidemics improves in speed and quality'

There is insufficient evidence to assess and judge UK-PHRST's contribution to the speed and quality of UK and global responses to outbreaks.

3.3.2 Unintended consequences and results

EQ6.3 What evidence is available to suggest unintended consequences and results beyond the logframe indicators?

High-level finding: EQ6.3	
<p>With the caveat that evidence the team was able to collect for this sub-EQ is fairly weak, there are some indications that the programme might have contributed to a positive image of the UK among partners in LMICs and globally. The shift to remote support due to COVID-19 increased the flexibility, team work and ability to provide long-term capacity building, but also presented challenges in terms of the mental health of the UK-PHRST team.</p> <p>There is also a perception among some stakeholders that not mainstreaming gender/equity/human rights/mental health concerns sufficiently through UK-PHRST work could have negative unintended consequences, but there is not, to date, concrete evidence of such consequences.</p>	<div style="text-align: center;">  <p>3</p> </div> <p>3: Evidence comprises few data sources across limited stakeholder groups (limited triangulation) and is perception-based, or generally based on data sources that are viewed as being of lesser quality.</p>

Finding 6.5: With the caveat that evidence for this sub-EQ is fairly weak, there are some indications that the programme might have had the following unintended consequences:

- **Some UK-PHRST and HMG stakeholders reported that UK-PHRST activities contribute to a positive image of the UK among partners in LMICs and globally** (such as WHO). This consequence can also be deemed as ‘intended’, depending on which version of the GHS Programme ToC we refer to.
- **The shift to remote support due to COVID-19-related travel restrictions and public health measures in the UK has brought about several unintended consequences**, both positive (e.g. increased flexibility for staff; improved communications and teamwork) and less positive (e.g. challenges in terms of mental health including increased risk of staff burnout). These have been explored in detail in **Section 3.2.2** and the remote support case study (See **Box 1** in **Section 3.2.2** and **Annex 10**).
- **Some stakeholders warned about the potentially negative consequences of not mainstreaming gender/equity/human rights concerns sufficiently through UK-PHRST work. However, no concrete examples were reported** and the team is currently seeking the support of a specialist to integrate recommendations and suggestions received from the evaluators during the mid-point evaluation and in a learning brief^{f84} (see **Section 3.3.5.4** for more findings pertaining to equity).

⁸⁴ Itad, 2020. Mainstreaming Gender Equality, Equity and Human Rights concerns into the UK-PHRST Programme Learning Brief.

3.3.3 Contextual factors affecting results

EQ6.4 What impact have contextual factors had on programme results?

High-level finding: EQ6.4	
<p>Lack of government buy-in, compounded by changes in LMICs' governments, has at times hindered programme results (such as in the cases of Sierra Leone and Tajikistan).</p> <p>COVID-19 is likely to have had an overall positive impact on UK-PHRST's prospects for sustainable results, although it is too early to say.</p>	<div style="text-align: center;">  <p>2</p> </div> <p>2: Evidence comprises multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources (limited triangulation) of decent quality but that are perhaps more perception-based than factual.</p>

Finding 6.6: Lack of government buy-in, compounded by changes in LMICs' governments, has at times hindered programme results. Evidence from KIIs and documents reviewed shows that a key factor that can hinder UK-PHRST's interventions, and hence their contribution to expected results, is a lack of support for UK-PHRST activities, or sometimes a misalignment in expectations, that can be further aggravated by sudden changes in government in the countries where the team operates. The clearest examples of this are Sierra Leone, from which UK-PHRST withdrew (including closing a house there) due to a perceived lack of buy-in from partners there, and Tajikistan, where UK-PHRST decided not to intervene further after an initial scoping visit under GOARN, due to lack of sustainability prospects. In the latter case, the team reported a mismatch between UK-PHRST's remit and resources and the new Tajiki government's expectations in terms of support for COVID-19 response (see **Section 3.2.7**).

'We put significant time and money into building lab capacity in Sierra Leone, and thinking about what we would do with the mobile container lab there that was a carry-over from Ebola outbreak, and how to perhaps deploy that mobile lab. It got embroiled in long [...] back and forth and inaction and lack of buy-in from partners in Sierra Leone, so it languished, and never really got set up or started [...] This was compounded by changes in government there.' (KII, UK-PHRST)

Finding 6.7: The COVID-19 pandemic is likely to have had an overall positive impact on UK-PHRST's prospects for sustainable results, although it is too early to say. As we have seen in **Section 3.2.2**, the COVID-19 pandemic and the related shift to remote working had a whole series of consequences for UK-PHRST in 2020. While, on the one hand, it facilitated further integration across the triple mandate (and different disciplinary approaches), as well as an enhanced focus on capacity development and regional approaches, it also presented challenges in terms of the implementation of research and some types of capacity development activities. It is too early to say what the effect of all these shifts will be on programme results in the medium to long term. However, evidence from the end-point evaluation seems to indicate that, overall, these shifts in UK-PHRST approach, if retained in a 'hybrid' model combining remote and in-country support going forward, are likely to increase the likelihood of contributing to sustainable results (see **Section 3.3.4**).

3.3.4 Sustainability

EQ7 Are programme outputs and outcomes likely to be sustained?

EQ7.1 Were appropriate sustainability aspects embedded into the UK-PHRST programme design?

EQ7.2 What evidence is there that UK-PHRST short-term scoping research projects have led to long-term research collaborations between UK and other partners?

EQ7.3 To what extent are the project outcomes likely to continue after the project?

High-level findings: EQ7, EQ7.1, EQ7.2, EQ7.3	
<p>Despite early signs of progress in this area, sustainability prospects are likely to be affected by the fact that related concerns have not yet been fully embedded in UK-PHRST’s strategy or implementation plans. Prior challenges to sustainability still exist and are aggravated by the current HMG funding climate. Progress has been made on developing strategic partnerships, partly due to the shift to more remote support imposed by COVID-19 in 2020, which opened the way to more sustainable forms of engagement including an increased focus on capacity development, the opportunity of longer-term engagement, and hybrid remote/in-person approaches. As for research, while UK-PHRST have made significant progress in creating and sharing Global Public Goods such as MOOCs and research and tools made available on the Knowledge Hub, a greater emphasis on effective dissemination of research findings and a stronger link between research topics and response needs are needed to maximise chances to contribute to sustainable results.</p>	<div style="text-align: center;">  <p>1</p> </div> <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p>

Finding 7.1: Sustainability prospects are likely to be affected by the fact that concerns have not yet been fully embedded in UK-PHRST’s strategy or implementation plans. As in the mid-point evaluation, evidence from document review and interviews suggests that UK-PHRST does not yet have a solid strategy in place to guarantee programmatic sustainability.

- There are yet no formal procedures for exit/transition plans in place for UK-PHRST deployment, research or capacity development efforts.
- There is still no systematic action plan/needs assessment coming out of deployments and no systematic linking up with PHE IHR Strengthening Project or other long-term capacity development initiatives.

There are some early signs of progress in this area, such as in the case of the joint UK-PHRST–Africa CDC deployment to The Gambia and the upcoming deployment to Nepal to carry out a needs assessment and then design a training programme accordingly. However, for now these remain just a few examples of good practice that need to be further embedded to increase the likelihood of sustainability.

Finding 7.2: Prior challenges to sustainability prospects still exist and are aggravated by the current HMG funding climate. As discussed already in the mid-point evaluation report, the rapid and reactive nature of some of UK-PHRST’s work, as well as the limited scale and resources of the programme (compared to LMICs’ overall capacity development needs), mean that UK-PHRST rely on the support of partners to ensure that both short and longer-term LMIC needs can be met and improve contribution to longer-term, sustainable outcomes. These pre-existing challenges are now compounded with potentially more limited and more unpredictable funding arrangements. In November 2020 the UK government announced cuts in the ODA fund from 0.7% to 0.5% of Gross National Income (GNI). This reduction in HMG aid spending, coupled with the short-term nature of funding cycles (the team submitted a Business Case for a three-year programme but to date has secured funds only until September 2021), hinders chances of contributing to sustainable outcomes in two main ways. First, it makes it challenging for the team to plan long-term activities (essential in terms of increasing such chances) with partners across the triple mandate. Secondly, it makes recruiting and retention of needed human resources – to replace

members who have left as well as to acquire specialist skills (as is the case for the Gender, Equity and Human Rights Senior Policy Advisor) – much more difficult than would have been the case if the programme could have offered more financial stability to potential candidates.

Finding 7.3: Progress has been made on developing longer-term strategic partnerships as the shift to remote support imposed by COVID-19 in 2020 opened the way to more sustainable and longer-term forms of engagement and an increased focus on capacity development. As we have covered under Finding 2.3 and Finding 3.2, UK-PHRST have made substantial efforts since late 2019 to provide greater clarity around the research and capacity development components of the triple mandate via development of an expanded, stand-alone research and capacity development strategy. Capacity development has taken a more prominent role in the last year of the programme, with the increased deployment of multidisciplinary teams and the organic shift to predominantly remote/longer-term support to regional organisations (see **Section 3.2.2**). The team have strengthened relationships with partners (especially at regional level) such as Africa CDC and Nigeria CDC, which is an appropriate move towards enhancing chances of sustainability. Thanks to previous face-to face relationship-building opportunities, the team have been able to establish good long-term collaborations with these partners through remote work and to support these regional/national partners in their efforts to strengthen response and preparedness at national level. This is seen as a more sustainable mode to operate and develop local capacity, vis-à-vis traditional fly in/out forms of support, both from a programmatic and from an environmental perspective.

Finding 7.4: UK-PHRST have made good progress with the creation and sharing of global public goods, but a greater emphasis on effective dissemination of research findings and a stronger link between research topics and response needs are needed in order to maximise chances to contribute to sustainable results. Compared to the mid-point evaluation, UK-PHRST have made significant progress in creating and sharing global public goods such as MOOCs and research and tools made available on the Knowledge Hub.⁸⁵ As we have seen in **Section 3.3.1**, however, there is still limited evidence of UK-PHRST research findings actually being applied to influence outbreak response or related policymaking. In order to maximise chances for research to influence response (either directly or through policymaking) and therefore be ‘sustainable’, there needs to be: i) more emphasis on prioritising research topics and conducting research in a way that maximises its usefulness for intended users; and ii) a clear dissemination and uptake strategy (see **Section 3.2.5**), working in partnership with national and regional partners.

3.3.5 Value for money

EQ8 To what extent have UK-PHRST followed the NAO principles of economy, efficiency and effectiveness and demonstrated VfM?

The table below presents the high-level findings for the four components of VfM considered in this report, which have been ranked as ‘excellent’, ‘good’, ‘adequate’ or ‘poor’ according to the criteria set out in our final inception report. As shown, overall the project has offered good–adequate VfM. Performance has been stronger for economy and efficiency than for effectiveness and equity. Although sustainability is not included in this analysis of VfM, findings against EQ7 suggest that this would also be ranked as ‘poor’, for the reasons highlighted under **Section 3.3.4**.

We do, however, note that rankings for efficiency and effectiveness are likely to have been higher had the evaluation team been able to access more and better-quality data on whether outputs and outcomes had been achieved.

⁸⁵ <https://uk-phrst.tghn.org/>

High-level findings	VfM criteria	Ranking and justification	Strength of evidence
EQs 8.1, 8.2	Economy	Good: High-quality academic service providers were selected and contracted, with recent contracts being structured to incentivise achievement of project milestones. The procurement of other project goods and services appears to mostly be working well.	2
EQs 8.3, 8.4	Efficiency	Good: Actual spending has been consistently below the level of intended spending throughout the course of implementation. Despite this, there has been strong performance against output indicators, suggesting that the project has been implemented more efficiently than anticipated. Efforts to measure and monitor efficiency have, however, been very limited, and evidence suggests that the limited use of reservists to support implementation has constrained efficiency – i.e. by contributing to the underspend and core deployable team becoming over-burdened.	1
EQs 8.5, 8.6	Effectiveness	Adequate: There is evidence of positive contribution of UK-PHRST especially to STOs 1 (on response) and 3 (on capacity development). While it has not been possible to directly measure whether UK-PHRST have contributed effectively to intermediate and long-term outcomes, analysis from across the different strands of this evaluation suggests that is plausible. Despite evidence of progress, however, some challenges in operationalising the triple mandate (explored under Workstream 2) have, to some extent, constrained overall effectiveness. Most notably this relates to limited human resource capacity and a lack of integration across and prioritisation accorded to each area of the triple mandate.	2
EQ 8.7	Equity	Adequate: Gender equality, equity and human rights have been considered in the project design, although there is still limited evidence that this has been translated into implementation practices. There is, however, evidence of a greater appreciation among UK-PHRST staff of the importance of integrating these considerations in UK-PHRST's work.	2

Rank	Justification
1	Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.
2	Evidence comprises multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources (limited triangulation) of decent quality but that are perhaps more perception-based than factual.
3	Evidence comprises few data sources across limited stakeholder groups (limited triangulation) and is perception-based, or generally based on data sources that are viewed as being of lesser quality.
4	Evidence comprises very limited evidence (single source) or incomplete or unreliable evidence.

3.3.5.1 Economy

EQ8.1 Have inputs (e.g. staff, consultants, raw materials and capital) of an appropriate quality been purchased at the best possible price?

EQ8.2 What is the relative cost of a readily deployable core team (costs including salaries, training, occupational health and backfilling reservists) compared with the costs of hiring external consultants?

Finding 8.1: There is strong evidence to suggest that the right agencies/organisations were selected to implement UK-PHRST, with stakeholders widely commenting on the high quality of services provided. PHE and LSHTM are considered to be the right partners to co-lead and implement UK-PHRST and have demonstrated their ability to deliver high-quality services. Stakeholders have also commented on the high quality of research and other services provided by other academic service providers engaged in the project. While some stakeholders noted the lengthy process required to contract academic service providers, we understand that this has not impacted on project delivery. In at least one instance with the University of Glasgow, this was due to planning work for clinical research in Uganda being advanced prior to the contract being signed.

Finding 8.2: There is evidence of contractual mechanisms being used to incentivise the achievement of outputs. The mid-point evaluation found that contracts between DHSC and UK-PHRST academic service providers were structured to incentivise high levels of delivery volume, which some stakeholders reflected may give the impression of this being the primary concern and in some instances may have led to suboptimal spending choices. However, we understand that more recent contracts with academic service providers (e.g. for the University of Glasgow and Liverpool School of Tropical Medicine, and a contract variation with the University of Oxford) have included clauses to ensure that disbursements are contingent on project milestones being reached.

Finding 8.3: The procurement of project goods and services appears to mostly be working well. Project documentation observes PHE and LSHTM's '*well-established, government standard and externally audited procurement policies and procedures that ensure that the delivery of the UK-PHRST will be cost-effective and will deliver good VfM*'. While some concerns were raised in the mid-point evaluation in relation to these systems and processes not always working well to procure items in partner countries, this was not noted by stakeholders as a continuing issue. This is attributed to the significant time and effort invested in finding a global logistics provider, in hiring a logistics manager, enhancing processes and developing guidance, and learning lessons from previous deployments, including to the Philippines.

Finding 8.4: Benchmarking analysis suggests that the model of hiring a full-time core deployable team is comparable to the cost of hiring reservists. For the mid-point evaluation, staff costs across the range of core deployable team positions (including provision for overheads) were compared with the average price paid by PHE for reservists (which was translated into an annual cost for the same number of full-time equivalent positions) with a negligible difference in overall cost. As the cost bases have not changed since the mid-point evaluation, this analysis has not been updated.

3.3.5.2 *Efficiency*

EQ8.3 To what extent did actual spending deviate from the intended spending?

EQ8.4 (EQ3) How successfully has UK-PHRST been operationalised?

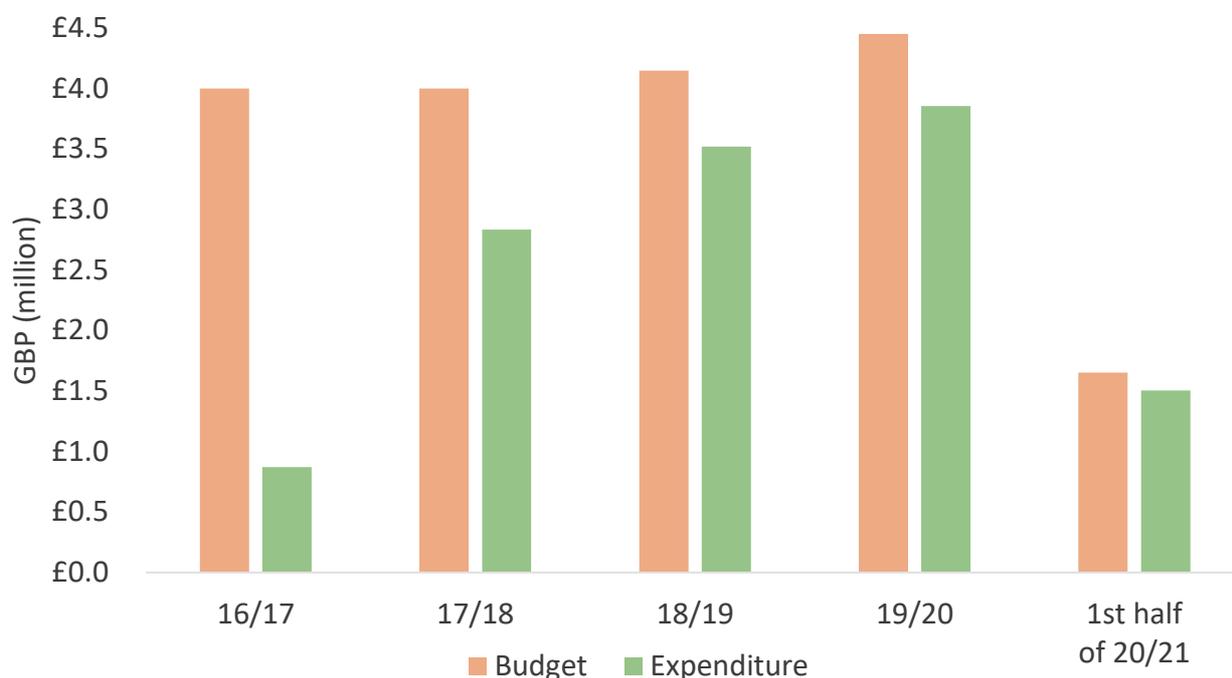
Finding 8.5: Actual spending has been consistently below the level of intended spending throughout the course of implementation. Figure 4 (below) shows the project budget and expenditure by year. Key points to note are as follows:

- The budget was originally structured for around £4 million per year, which retrospectively seems highly ambitious for the first two years of implementation, even despite the delayed start.
- The removal of unutilised budget from the first few years of implementation has significantly reduced the overall project resource envelope.
- A lack of flexibility in being able to reallocate budget from one activity/area to another was cited as a major reason for underspend in the early years of implementation.
- Even when project implementation was fully underway, there were underspends of around £600,000 in both 2018/19 and 2019/20. This is primarily due to:

- *Deployments*: Fewer bilateral deployments occurred than planned, particularly for microbiology. In addition, deployments often did not cost as much as budgeted.
- *Reserve cadre*: Lack of recruitment of reservists.
- *Capacity development*: Difficulties budgeting for this area, as well as significant underspend on a few high-cost items (e.g. container lab, house/office space in Sierra Leone).
- *Operational research*: Absorption in this area has been comparatively high, possibly as it is significantly easier to budget for than other areas.

While COVID-19 is cited in some documents as a factor in explaining low budget absorption, analysis of the financial information does not show a significant difference in spending or absorption in early 2020 as compared to previous periods.

Figure 4: UK-PHRST project budget by year



Finding 8.6: Efforts to measure and monitor efficiency remain heavily focused on budget

utilisation. Budget execution is monitored regularly, with the UK-PHRST SMT meeting regularly to review and discuss budget-related issues. This close look at portfolio finances enables joint reporting of financial information across the entire UK-PHRST and streamlines further action across all partners (PHE, GHS Delivery Team). However, as reported in the mid-point evaluation report, it is still unclear if/how project management costs are tracked and reported at aggregate and intervention levels; and if the unit costs of activities are analysed in relation to the outputs achieved (particularly in light of the issues with the MEL system noted elsewhere).

Finding 8.7: One particular issue affecting the project’s level of efficiency is in relation to the limited use of Field Epidemiology Training Programme (FETP) Fellows and reservists to support implementation.

In theory, the UK-PHRST model was to use a core deployable team to conduct research alongside and around deployment and capacity development work, drawing on FETP Fellows and reservists to provide additional capacity and ensure efficient use of staff time. In practice, there has been a reliance on the CDT to fulfil all roles and functions, with FETP Fellows and reservists only engaged in select instances, for the reasons already explored under **Section 3.2.2**. This has over-burdened the CDT and meant that some roles and responsibilities could not be fulfilled – for instance, there is evidence of staff being too busy to provide training and mentoring to more junior staff. This is also a missed opportunity for developing

capacity and international outbreak experience for FETP Fellows. Given that the project has consistently under-absorbed its budget and therefore could have afforded to engage supplementary resources, there is a critical need to get the balance of CDT, FETP Fellows and reservists right for the next phase of the project, and the team has already started thinking in this direction.

Finding 8.8: Despite some underspend, there has been strong performance against output indicators. As reported in **Section 3.2.1**, UK-PHRST have achieved or exceeded most output milestones to date and are on track to achieve most output milestones by the end of the implementation period. Progress has been particularly strong for outputs related to deployments and research. Capacity development is one area where progress against outputs has historically been slow but has improved over time, with all outputs on track to being achieved by the end of the implementation period. This suggests that the project has been implemented more efficiently than anticipated at the outset of the programme, when the budget and outputs were developed and agreed upon.

3.3.5.3 *Effectiveness*

EQ8.5 (EQ1) How appropriate is UK-PHRST's integrated model and consortium approach in contributing to improved outbreak response?

EQ8.6 (EQ6) To what extent are UK UK-PHRST activities relevant, strategic and appropriate in relation to UK-PHRST programme goals?

Finding 8.9: Analysis from across the different strands of this evaluation suggests that UK-PHRST is likely to have been a value adding and effective project. UK-PHRST is designed to facilitate improved preparation for and response to public health threats, with stakeholders widely reflecting that, in line with the ToC: deployment activities are in response to an identified need and are evidence-based, and therefore likely to make a meaningful contribution to response efforts; and research activities are also likely to support improved preparation and response.

As outlined in earlier sections of this report, UK-PHRST are unique in terms of their ability to: i) deploy quickly and early; ii) deploy at the sub-national level and to less secure environments; iii) offer continuity of support via rolling deployments; iv) deploy a multidisciplinary team from both government and academic institutions across multiple response pillars; v) provide high levels of technical expertise; and vi) tap into extensive and multiple networks through consortium partners. Qualitative evidence from a range of sources suggests that the design of the UK-PHRST project around the 'triple mandate' can be highly beneficial to the achievement of outcomes.

This evaluation's findings that the intervention logic and assumptions underpinning the project ToC broadly hold true (despite limited evidence in places) suggest that outcomes are likely to be achieved in the manner expected in most areas. A number of other factors also suggest that processes are being put in place to ensure that desired outcomes are achieved:

- Potential activities are being more consistently assessed in terms of whether they align with the project's ToC and relevant strategies.
- Significant emphasis has been placed on learning lessons from project implementation to inform future ways of working, which is intended to improve effectiveness.
- There is an increased prioritisation of working alongside and collaborating with partners for the achievement of outcomes at regional (e.g. Africa CDC) and country levels (i.e. through national public health institutes) as a pragmatic response to the project's limitations, most notably limited team capacity.

Finding 8.10: However, despite evidence of progress, several challenges in operationalising the triple mandate have constrained overall effectiveness. As noted in the report sections above, organisational and cultural differences between PHE and LSHTM remain a challenge for effective collaboration, despite recent efforts to foster a 'UK-PHRST identity' and improve how the project is

managed and implemented. However, the most critical issue has been limited human resource capacity, which has at times resulted in insufficient resources being allocated to each of the project areas. A number of team members recently leaving the core deployable team will further affect how the project is managed and implemented. There are also particular challenges to each of the three areas of the triple mandate. Most notably:

- **Outbreak response:** Some of the consequences of not having been able to leverage FETP Fellows and reservists to support outbreak response as widely as originally intended (See **Section 3.2.2**) have been that capacity among these cadres has not been built to the extent envisaged. In addition, some of the roles and responsibilities of the core deployable team have not been fulfilled – this has included training and mentoring of junior staff members.
- **Capacity development:** This area has suffered from limited ownership by both PHE and LSHTM, and has not been sufficiently prioritised. Evidence suggests that this is related to the inherent tension in the project mandate between ‘rapid’ response and the longer-term support needed to build capacity, as well as the lack of an explicit strategy in this area until late 2019. Recent efforts to ensure longer-term engagement with country counterparts to support capacity development, particularly through the use of video conferencing technology since the onset of the COVID-19 pandemic, do appear to be showing early signs of success.
- **Research:** Various issues have affected the effectiveness of research activities, including difficulties in funding research at short notice during outbreaks, some research projects not being fully aligned with outbreak response needs, and limited uptake/utilisation of completed research, which is linked to only limited efforts made to disseminate research findings and work with country stakeholders to ensure their adoption.

The level of integration across the triple mandate does appear to have increased in the final year of implementation, with several examples of deployments (in person and/or remote) where all three areas of the triple mandate were operationalised – for instance, in Madagascar, Africa CDC and Cox’s Bazar. While this represents progress, and is widely considered to be beneficial to the achievement of outcomes, qualitative evidence suggests that there are still challenges to fully operationalising this model. Some also see full integration as unrealistic, due to capacity constraints, and/or unnecessary in some instances.

Finding 8.11: There are a number of examples of how successful UK-PHRST implementation has contributed to successful outbreak response efforts and capacity development. There is less evidence on the achievement of research outcomes. For outbreak response, particular examples include the wide-ranging support provided to Cox’s Bazar, including for cholera and COVID-19, which contributed to improved timeliness and quality of the response; supporting Nigeria CDC’s response to Monkey Pox, Lassa Fever and COVID-19 by increasing the quality of epidemiologic and surveillance analytics; supporting enhanced analysis of epidemiological data to strengthen the EVD response in the DRC, and supplementing the capacity of Africa CDC’s rapid response team.

For capacity building, this has included building capacity within Africa CDC’s rapid response team; strengthening laboratory capacity in Cox’s Bazar; and strengthening data systems/analysis and laboratory capacity in The Gambia. For research, there are few examples of where findings or tools developed by UK-PHRST have been applied in future outbreak response or in policymaking at country level. One exception to this is for Lassa Fever in Nigeria, where research informed a revision to national guidelines and training protocols.

3.3.5.4 Equity

EQ8.7 What is UK-PHRST's impact as regards gender equality, equity and human rights?⁸⁶

Finding 8.12: Gender equality, equity and human rights have been considered in the project design, although there is still limited evidence that this has been translated into implementation practices. As found at mid-point, all UK-PHRST interventions are designed to comply with and champion the applicable laws of England and Wales related to equity and the promotion of human rights. In practice, however, limited progress has been made to date in tailoring and implementing suggestions presented in the Learning Brief on 'Mainstreaming gender equality, equity and human rights concerns into the UK-PHRST programme'⁸⁷ that was produced by the evaluation team to support UK-PHRST with the implementation of Recommendation 6 of the mid-point evaluation to 'Operationalise existing commitments to promoting equity and human rights'.⁸⁸ In particular, gender, equity and human rights concerns are not yet routinely embedded in project design and decision making across the triple mandate. For instance:

- Context-specific gender, equity and human rights analyses are not yet conducted pre-deployment/remote support to ensure the deployment team are sensitised in advance.
- Examples of UK-PHRST's research topics related to gender, equity and human rights-based response to disease outbreaks are scarce.
- Gender, equity and human rights-based response to disease outbreak is not yet integrated as a capacity development topic for LMICs' stakeholders.

Finding 8.13: While UK-PHRST partners in LMICs report no concerns with the team approach to these issues, a lack of integration of gender equality, equity and human rights issues into programme design and implementation has the potential of decreasing the effectiveness of the programme. Key informants in LMICs that work closely with the team reported that the team approach to gender equality, equity and human rights is adequate and team members usually show strong cultural sensitivity. As we have seen under EQ 6.3, however, some key informants voiced the potential risks that having a blind or neutral approach to these issues could have in terms of potentially worsening existing inequalities or leaving vulnerable groups behind.

Finding 8.14: In the last year, however, the team's appreciation of how gender equality, equity and human rights issues intersect UK-PHRST's work has substantially increased and steps are being taken in the right direction. Since the mid-point evaluation was conducted, the UK-PHRST team's interest in and understanding of how gender equality, equity and human rights issues intersect infectious disease outbreak, and therefore UK-PHRST's work, has considerably strengthened. The team invested substantial time in discussions around the development of the Learning Brief, and became further invested as a result of external events of 2020, such as the resurgence of the 'Black Lives Matter' movement after Ahmaud Arbery's homicide and the renewed interest in the 'Decolonisation of development' discourse. Over the last six months of 2020 the team has held several sessions, with and without the evaluators, to explore these issues and how to move forward to further operationalise existing commitments. Most notably, the team is seeking to recruit a Gender, Equity and Human Rights Senior Policy Advisor until September 2022 to provide guidance and support to the programme to mainstream gender, equity and human rights concerns in programme design and delivery. As we have seen in **Section 3.2.3**, however, current uncertainty regarding long-term funding for the programme is likely to have an impact on this and other recruitments.

Finding 8.15: The shift to more remote work is likely to increase chances to attract a more diverse team going forward. Multiple stakeholders, mainly internal to UK-PHRST, have pointed out that the CDT is currently not very diverse (in terms of gender, ethnic origin and other personal characteristics). This is not

⁸⁶ The original wording of this sub-EQ from the Inception Report and the Mid-point Evaluation Report was 'What is the UK-PHRST impact as regards equality and human rights?' but we reworded it for the end-point in line with the language used in the Evaluation Learning Brief.

⁸⁷ Itad, 2020. Mainstreaming Gender Equality, Equity and Human Rights concerns into the UK-PHRST Programme Learning Brief.

⁸⁸ Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

due to any discriminations at policy level, but is most likely a reflection of society. A shift to more remote work across the triple mandate (as opposed to the requirement of being ready to deploy in 48 hours for 4–6 weeks), if retained in a hybrid model going forward, increases the chances of attracting a more diverse core team in terms of gender and other personal characteristics, as it would make it easier for staff to combine work- and life-related responsibilities (which tend to be ‘gendered’) and lower barriers to entry for individuals that cannot travel.

3.3.6 Measuring of results and transparency

EQ9 Are UK-PHRST capturing the right data to measure results and ensure transparency, and how can this be improved?

EQ9.1 Is UK-PHRST’s current ToC measuring the right things to ensure that programme outcomes are captured? How can it be strengthened?

EQ9.2 What evidence of transparency is available?

EQ9.3 Are suitable M&E systems in place to adequately capture results and how can they be improved?

High-level findings: EQ9, EQ9.1, EQ9.2	
<p>UK-PHRST ToC, logframe and indicators for the current phase have been revised during 2019 and 2020 with support from the external evaluation team.</p> <p>MEL systems have been strengthened through these interactions but progress has taken time and operationalisation of new tools and processes is still ongoing.</p>	<div style="text-align: center;">  <p>1: Evidence comprises multiple data sources (both internal and external) (good triangulation), which are generally of decent quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.</p> </div>

Finding 9.1: UK-PHRST ToC, logframe and indicators for the current phase have been revised during 2019 and 2020 with support from the external evaluation team. Following Recommendation 5 of the mid-point evaluation report to ‘revise current MEL systems to make sure they are fit for purpose to support learning and adaptation’,⁸⁹ the evaluation team offered further support to UK-PHRST between the mid-point and end-point evaluation to: i) further refine the programme ToC that was originally co-developed during the inception period in 2019; ii) revise the logframe for the current phase and the associated indicators.

During Q3 2020 the ToC diagram was revised, with a view to make it as relevant as possible both for past and for ongoing activities and to make sure that all relevant pathways of change were captured (to inform our Contribution Analysis work). Work on the logframe continued through Q4 2020, with a template version being finalised around mid-November. This latest version of the logframe is deemed to be fully aligned with the revised ToC and to contain smarter indicators.

Finding 9.2: MEL systems have been strengthened through constructive engagement by UK-PHRST and support from the evaluation team, but progress has taken time and operationalisation of new tools and processes is still ongoing. The external evaluation team supported the strengthening of UK-PHRST MEL systems more broadly by creating a new monitoring spreadsheet that is integrated with the revised ToC/logframe and the latest implementation plan. As a result of this collaborative work, and the work of a dedicated working group on learning (see **Section 3.2.5**), the programme MEL systems are now more

⁸⁹ See Recommendation 5, p.54 - Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

robust and fit for purpose. Moreover, in line with the mid-point recommendation that 'Reflection opportunities, such as the AARs, should be maximised across the triple mandate',⁹⁰ a one-day virtual AAR meeting, covering activities across the triple mandate since the previous AAR had taken place in June 2019, was held remotely on 13 January 2021. The event was deemed a success, with more than 40 stakeholders from different partners (including multiple national and regional stakeholders) participating and engaging in lesson-learning.

Evidence from KIIs, however, points out that these reflective exercises remain ad hoc for the moment, and partners are yet to be involved in a more systematic and regular way in dissemination and lesson-learning after/during each engagement. The shift to remote and more long-term support instead of in-person time-bound deployments has also reduced, at least temporarily, opportunities for reflection. As we have seen in the limitations section, for instance, the team used to draft end-of-mission and situation reports after every deployment, but since the switch to largely remote and more longer-term support in March, the team has not reported on certain activities in the same way, as engagement (e.g. with Africa CDC and Nigeria CDC) is still ongoing and there are no standardised processes for documenting and reporting on remote support.

Furthermore, time needed to collaboratively finalise these systems and tools has meant that not enough data on progress towards outputs/STOs/Intermediate Outcomes has been collected during the period between mid-point and end-point. Hence we could not observe the full operationalisation of these revised MEL tools and processes as part of the end-point evaluation.

⁸² Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

4 Conclusions

UK-PHRST and the triple mandate originated from the lessons and insights of the West Africa EVD outbreak of 2013 and 2016. As we have seen under **Section 2.1**, it was designed to tackle the need identified by DFID and the global health community⁹¹ for additional ‘research readiness’ and ‘expert readiness’ to strengthen UK and global response to epidemics in terms of speed and quality. The below summarises areas in which the programme has succeeded (and on which UK-PHRST could build in any future phases) and areas for improvement vis-à-vis its mission.

Four years on, the UK-PHRST model is still valid and increasingly relevant in the current global context.

The idea of combining disease outbreak response, research and capacity development in a readily deployable multidisciplinary team, who are also able to conduct research during and in between outbreaks, still holds. If anything, it has become more relevant in today’s world, distraught by a pandemic which brings unprecedented global attention to the need to quickly and appropriately prevent, detect and respond to national and global health threats. The programme’s growing responsiveness to LMIC-defined requests for support, its focus on capacity development, and work in partnership with national and regional public health organisations – as opposed to ‘fly in/out’ models of support – is increasingly aligned with the direction of current debates about the decolonisation of global health. Moreover, as we have seen in **Sections 3.1.1 and 3.1.2**, the programme has made particular progress in the integration among the three components of its mandate, which has the potential to increase its chances of contributing to sustainable outcomes, through an enhanced focus on capacity development as a cross-cutting issue.

In terms of ‘expert readiness’, the programme has been successful in establishing a highly professional and well-regarded team of experts from respected institutions, ready to deploy in 48 hours. In doing so, UK-PHRST have developed positive relationships with GOARN and national governments in LMICs, who report improved speed and effectiveness of outbreak response when UK-PHRST are deployed. UK-PHRST are seen as a highly reliable team that deploy rapidly and offer cutting-edge technical expertise.

Despite limited human resources which have overstretched the team and inevitably restricted what they have been able to achieve, the programme is on track to achieve all its outputs, with some signs of positive contribution to STOs related to outbreak response and improved LMIC outbreak response capacity. As we have seen in **Section 3.2.1**, despite its limited scale and human resources, just less than a year from the end of the first phase of UK-PHRST the programme has achieved or is on track to achieve its planned outputs, despite the underspend throughout the course of implementation. In terms of contribution to higher-level results, the end-point evaluation was able to gather examples of plausible contribution to STOs linked to response and capacity development in LMICs, but little to no evidence was available to demonstrate contribution to STOs on application of research findings, or to intermediate and long-term outcomes, for the reasons explained in **Section 2.6** on limitations and **Section 3.3.1** on progress against programme goals. Additional human resources could probably have expanded the reach and contribution of the programme (and certainly decreased overwork and associated risks).

UK-PHRST have also been successful in establishing good partnerships with some national and regional-level institutions in charge of outbreak response, but more can be done to leverage partnerships for more sustainable outcomes and integrate a more well-defined capacity development approach. As we have seen in **Section 3.1.2 and 3.2.1**, the programme has been successful in establishing strong collaborative partnerships with some national and regional stakeholders such as Nigeria CDC and Africa CDC. Further, the COVID-19-related shift to more remote support in 2020 opened the way to more sustainable forms of engagement (e.g. increasing the focus on capacity development, opportunities for longer-term support, and ‘hybrid’ remote/in-person approaches). The need, however, still remains for the

⁹¹ ICAI. 2018. The UK Aid Response to Global Health Threats. A Learning Review. Available at: https://icai.independent.gov.uk/wp-content/uploads/GHT-review_final.pdf

programme to better define its capacity development 'offer' and build on existing and new partnerships with other actors to complement this offer, with a view to improving sustainability of outcomes.

As for 'research readiness', the absence of a clear, overarching approach to research dissemination and uptake has hampered contribution to programme results related to the application of UK-PHRST research findings in response and policymaking. As we have seen in **Section 3.1.1**, a research and capacity building strategy came about only in June 2019 (more than halfway through the programme lifecycle). A research uptake and dissemination strategy which sets out how to further systematically strengthen the link between research topics/questions and the needs of outbreak response, and how to work with partners (including DHSC) at country, regional and global levels to promote the application of research findings, is yet to be drafted. This has, inevitably, limited the potential positive effects of these strategies on programme results, as well as our ability to assess the effectiveness of the model.

Despite considerable progress made in strengthening its MEL systems, more can be done to enhance learning and show contribution to higher-level results. As we have seen in **Section 3.3.6**, UK-PHRST MEL systems have been strengthened through constructive engagement by UK-PHRST (including through a dedicated working group on learning) and support from the evaluation team, but progress has taken time and the operationalisation of new tools and processes is still ongoing. As mentioned under **Section 2.6** on limitations, this has somewhat limited the extent to which this end-point evaluation could assess contribution to outcomes.

5 Recommendations

This section presents six high-level recommendations. Following submission of the end-point evaluation report in January 2021, in the spirit of ‘Utilisation-Focused Evaluation’, the evaluation team facilitated a virtual co-creation workshop on 12 February 2021 with UK-PHRST SMT members, along with stakeholders from broader PHE, LSHTM, and the GHS Delivery Team. By drawing together these stakeholders, the workshop aimed to foster intended users’ engagement and buy-in around the evaluation findings and recommendations, thereby maximising the chances for recommendations to be useful and used. The workshop involved a review of the priority evaluation findings and strategic implications, and interactive discussions on options for moving forward. These were then used by the evaluation team as an additional data point to frame the recommendations presented below. As such, while the recommendations are those of the independent evaluation team, and directly follow from the findings and conclusions presented in this report with no undue influence from UK-PHRST and its partners, it is intended that these reflect the views and priorities of the evaluation users.

These recommendations can be grouped into two categories. The first three recommendations (‘act now’) are, in our view, the most critical to start addressing as soon as possible. Recommendations 4-6 (‘continue and embed’) cover areas in which UK-PHRST have already made good progress in the right direction, but more can be done to maximise and embed improvements going forward.

As of March 2021, less than 12 months of programme implementation time remain. It is important to acknowledge that while UK-PHRST can refine some of their systems and processes in the current funding period, insufficient time remains to make any radical shifts. Conclusions and recommendations originating from the end-point evaluation should therefore be fed into the design and planning of the next phase.

The remainder of the section presents the full text of the six high-level recommendations proposed by the evaluation team for UK-PHRST to take forward.

Table 5: Recommendations

Recommendations 1-3 – Act now	
Recommendation 1	
<p>Ensure sufficient capacity to adequately meet the demands of programme delivery and maximise successful outcomes across the triple mandate, by advancing recruitment plans, using reservists and FETPs where possible, and clearly articulating a request for more human resources in any future phase. As we have seen in this report, being a small UK-based team has resulted in overstretch, and inevitably limited what the team has been able to achieve. The situation has been worsened by COVID-19 and the current unpredictable funding climate, which have made access to reservists and recruitment challenging. The team should prioritise recruitment for any vacant positions, and use reservists and FETPs where possible to help fill immediate gaps. Looking towards the next phase, UK-PHRST has already articulated a request for more human resources in order for the team to be better positioned, to deliver on their strategic case. With GHS outlined as a UK government priority, and considering the team’s achievements to date, there is a strong argument for increasing the UK-PHRST programme’s resources.</p>	
Recommendation 2	
<p>Deepen in-country networks and partnerships to achieve programme objectives (particularly in relation to sustainability) through an updated approach to partnerships. Given the tensions between available resources and its mandate, as well as COVID-19-related travel restrictions, UK-PHRST should also focus on further developing their partnerships approach. This should articulate complementarity and modes of collaboration and coordination at UK level (to deepen and systematise cross-HMG programme synergies) and in countries where UK-PHRST operates. Starting during the current phase, we recommend working to build stronger</p>	

links with partners better placed to conduct long-term capacity development activities, such as PHE IHR Strengthening Project, FCDO country offices, other parts of HMG GHS such as the Fleming Fund. Partnerships with long-term in-country GHS stakeholders with a strong capacity development footprint, including WHO and US CDC should be developed, as should those with regional organisations such as Africa CDC and relevant academic institutions.⁹² UK-PHRST should also consider building stronger links with international NGOs where appropriate, and with the IASC in order to improve its access to partners with long-term in-country presence and relationships.

Recommendation 3

Put greater emphasis on ensuring that research is used to inform decision making and to guide policy in LMICs, by articulating and implementing a research uptake strategy and further aligning research questions with needs.

As we have seen through the report, a clearer approach is needed to help maximise the impact of UK-PHRST's growing body of research on policy and practices related to preparedness and response to infectious disease outbreaks (in line with their ToC). Evidence-informed policymaking (EIPM) is a long-term and highly complex process. Many conditions need to be in place beyond the availability of 'evidence' in order for EIPM to take place: for instance, evidence being available in a timely fashion and in a format that suits policymaking purposes; individuals able and motivated to play a 'translation' role between evidence and policy; and, ultimately, decision makers with time, capacity and incentives to interpret the available evidence and act upon it.⁹³



In order for research findings generated by UK-PHRST to contribute to response and related policymaking at all levels (country, regionally, and globally),⁹⁴ there is a need to examine what these other 'conditions' look like in particular contexts, and how and whether UK-PHRST could work with DHSC or any other key partners and/or stakeholders to maximise chances for it. UK-PHRST should also agree on what their role and level of ambition vis-à-vis EIPM is at different levels. This could be achieved by: i) articulating and implementing a research uptake strategy at global, regional and country levels; ii) further aligning research topics/questions and the needs of outbreak response in particular countries (including through co-design of research projects); iii) ensuring staff consider this as part of their scope of work; and iv) leveraging wider HMG and other partners in this direction.

Recommendations 4-6 – Continue and embed

Recommendation 4

Further define and embed UK-PHRST's scope of work and ways of working, especially within capacity development, and improve partners' awareness and understanding of UK-PHRST's mandate through an effective communications plan.

As mentioned in previous sections, UK-PHRST have made considerable progress in integrating the three components of their mandate. However, given the limited implementation time remaining and the human resource constraints facing the programme, as previously indicated in our mid-point report,⁹⁵ it is essential for UK-PHRST to further define their scope of work across the triple mandate. This is particularly important as regards capacity development – seen by many stakeholders to be the most strategic and relevant aspect of the triple mandate towards sustainable outcomes – where there is a need to set out clear



⁹² As already suggested in the mid-point report, p.54 (recommendation #4), UK-PHRST could first of all assess LMICs' capacity development needs (with reference to JEE and NAPHS reports) as part of their engagement. This could be followed by discussions with national and regional counterparts about where and how UK-PHRST would be able to provide short/medium-term support in these areas. At the same time, UK-PHRST should set out clear exit/transition strategies, including where necessary 'hand-over' arrangements with national, regional or international partners better-placed to conduct long-term capacity development activities.

⁹³ Itad has substantial experience in evaluating evidence to policy pathways. These reflections are based on a literature review that Itad has carried out on conditions needed for EIPM using John Kingdon's Multiple Streams Approach as an overarching framework (unpublished).

⁹⁴ The second short-term outcome in the UK-PHRST Theory of Change refers to research findings informing LMIC policy-making, so the summary text of this recommendation refers to LMICs' policies specifically, however, UK-PHRST may wish to consider contributing to policies at different levels.

⁹⁵ Ibid.

ways of working, both within the consortium and with partners. UK-PHRST's capacity development strategy should therefore be finalised (with explicit accountability mechanisms) and embedded. Greater communication and awareness raising of UK-PHRST and what they do among key partners in LMICs and across HMG and wider stakeholders is also a priority, particularly in light of recent changes within HMG. In response, the UK-PHRST team should set out, implement and monitor a communication and engagement plan⁹⁶ to help manage partners' expectations.

Recommendation 5

Continue to strengthen and implement UK-PHRST's MEL approach to maximise chances to contribute to desired outcome level results and to be able to demonstrate contribution at this level. While great efforts have been made by UK-PHRST to revise current MEL systems in line with the mid-point report recommendation 5 in collaboration with the evaluation team,⁹⁷ there remains a need to further embed the way UK-PHRST monitor and measure contribution to desired outcomes (across the triple mandate). Efforts should therefore be made to put into practice and further strengthen the work done to date on the MEL framework and on the learning side, in order to: i) ensure that sufficient evidence is made available to the programme team and oversight committees to make well-informed decisions on course correction, to maximise chances of contributing to higher-level results; ii) be able to demonstrate contribution at this level, which will be particularly important in the current financial climate.



Recommendation 6

Retain lessons learned during COVID-19 through a 'blended' approach combining in-person and remote support. As we have seen in **Section 3.2.2** and in our remote support case study (**Section 3.2.2** and **Annex 10**), COVID-19 has facilitated/sped up some changes in the way UK-PHRST operate, towards more remote, long-term and regional support. Although this specific issue did not come up as such during the co-creation workshop, the evaluators feel that, in line with findings and conclusions of this end-point report, these innovations should be retained even when travel becomes easier again, as considered valuable and particularly relevant in the current climate. UK-PHRST could do so by adopting a 'blended' model going forward, so as not to lose the advantages of in-person support (e.g. to build initial rapport and to conduct certain types of capacity development activities) and of working with individual countries when appropriate.



⁹⁶ See Recommendation 3, p.53 - Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf

⁹⁷ See Recommendation 5, p.54 – Itad, 2020. Mid-point evaluation of the UK Public Health Rapid Support Team (UK-PHRST). Available at: https://www.itad.com/wp-content/uploads/2020/12/UKPHRST-midterm-report_Final_14August_SUBMITTED.pdf



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