Department of Health & Social Care

UK Public Health Rapid Support Team Business Case Justification

1. Purpose

1. the UK-PHRST has been allocated an indicative budget of £16.5m ODA funding over the next three years from 2022/2023 to 2024/2025. The UK-PHRST is seeking approval to commit up to a maximum of £18m of ODA over three years. This would allow for a small degree of overprogramming at the beginning of the year and aim to mitigate the risk of underspend against the indicative budget at the end of the year.

   Indicative figures are set out below:

Headline figures (in £m)	22/23	23/24	24/25	Total
Indicative budget	5	5.5	6	16.5
Maximum budget (to allow for overprogramming)	5.5	6	6.5	18

2. This business case outlines the detailed case for the continued allocated SR funding of the UK-PHRST maintaining its triple mandate of deployments, research and capacity development to support outbreak preparedness and response in low- and middle-income countries (LMICs) as well as outlining the key areas in which the UK-PHRST propose to expand the team. The UK-PHRST Strategic Framework (2022-25), to be submitted in Q1 2022-23, will provide further detail on the planned direction of the programme over this three-year period.

2. Strategic Context

Background to the UK-PHRST

3. In 2016 the UK-PHRST was established following a successful bid to HM Treasury by the Department of Health. The UK-PHRST is delivered for the Department of Health and Social Care (DHSC) by the UK Health Security Agency (UKHSA) and the London School of Hygiene and Tropical Medicine. This innovative partnership aims to support LMICs to respond to infectious disease outbreaks by offering direct support during deployments, strengthening the evidence base through innovative research and developing in-country capacity. Further background on the missions of both the UKHSA and LSHTM can be found in Annex 1.

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4. The UK-PHRST is multi-disciplinary and comprised of experts in public health, epidemiology, microbiology, infection prevention and control (IPC), social science, mental health, training and education, and knowledge management. It is supported by a core management team and is overseen by the UK-PHRST Director and Deputy Director for Research.

5. Many in the team are part of the 'core deployable team' (CDT) that can deploy to support an outbreak response within 48 hours. Additional surge support is managed through a UK wide reserve cadre of public health experts. The UK-PHRST also support opportunities for Field Epidemiology Training Programme Fellows (FETPs) to engage in activities across the remit.

6. The UK-PHRST has built a global reputation as a leader in outbreak response, research, and capacity development. The team has been highlighted by Bill Gates in his regular blog (*Meet the Virus Hunters*, GatesNotes: The Blog of Bill Gates), and the Robert Koch Institute in Germany and Institute of Tropical Medicine in Belgium have liaised with the UK-PHRST for guidance and to develop a similar model.

7. The UK-PHRST has a triple mandate with the following objectives:
   1) Support partners in LMICs to investigate and respond to disease outbreaks rapidly at source, with the aim of stopping a public health threat from becoming a health emergency.
   2) Identify research gaps and deliver rigorous research with partners that improves the evidence base for best practice in disease outbreak prevention, detection and response in LMICs.
   3) Support the development of in-country capacity for an improved and rapid national response to prepare for, prevent, detect and respond to disease outbreaks.

8. UK-PHRST aims to build on the success of the programme informed by knowledge gained and lessons learned over the last 5 years. In particular, there will be a renewed focus on strengthening and broadening partnerships to support sustainable capacity development, increasing deployable surge capacity, and delivering a research programme with clear pathways to impact.

9. It will further maximise opportunities for aligning with DHSC Global Health Security and Foreign Commonwealth and Development Office (FCDO) projects and programmes (such as the International Health Regulations Strengthening Project and the successor to the FCDO Tackling Deadly Diseases in Africa Programme), and co-ordinate closely with international and national academic partners.

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Outbreak response

10. UK-PHRST deploys public health experts across multiple disciplines in response to requests for assistance directly from host governments (bilateral deployments), through the WHO Global Outbreak Alert and Response Network (GOARN deployments), or alongside the UK Emergency Medical Team (EMT). To date the team have deployed over 70 staff to 17 countries in response to 24 requests for assistance. Support has been provided in epidemiology, public health microbiology, Infection, Prevention and Control IPC) and social science. The team has deployed to outbreaks of multiple diseases including Ebola virus disease, COVID-19, Lassa fever, meningitis, cholera and plague.

11. The principal deployment mechanism to date has been through GOARN. This has facilitated the large majority of deployments, plugging into a global network of outbreak responders to support epidemic responses. UK-PHRST has increased the number and quality of UK epidemic outbreak responses. The GOARN mechanism is responsive to the needs of this network and operates almost entirely to support WHO.

12. In this next phase of UK-PHRST, bilateral deployments, directly with overseas governments, will be proactively pursued, in line with the aim set out in the International Development Strategy for the UK to have more and closer bilateral partnerships[1]. This will take place alongside responding to ongoing deployment requests from GOARN. Bilateral deployments increase the ability for the UK-PHRST to set the parameters of the deployment missions due to direct agreement of mission objectives and programmes of work with the receiving government. UK-PHRST will seek to adapt the model used by GOARN for deployments, including customising elements such as deployment length, type of technical expertise deployed and specific outputs of the objectives.

13. Bilateral deployments are entirely dependent on established/establishing partnership relationships so that UK-PHRST is both visible and recognised as an effective partner to work with. UK-PHRST will target the development of partnerships through capacity development projects to promote onward bilateral deployments. UK-PHRST will seek broader global coverage, including engaging with WHO regional offices.

14. To support this process, UK-PHRST has developed a partnership prioritisation tool, which will assess potential new partnerships in terms of standardised criteria relating to strategic alignment with UK-PHRST's mission, the potential impact of the partnership and any risks. The tool was developed through a review of stakeholders to identify opportunities and priorities for partnerships. The tool will allow the UK-PHRST to prioritise partnerships and ensure the partnership approach is connected to other important narratives, such as sustainability, equity and human rights and the UK-PHRST Strategic Framework.

[1] The UK Government's Strategy for International Development – CP 676 (publishing.service.gov.uk)

15. Extra-capacity in the core deployable team with dedicated staff to support and steer the project will enable increased focus on capacity development and this in turn will support establishing the relationships required to increase opportunities for bilateral deployments. To facilitate the impact of the UK-PHRST, capacity development projects will include building on established UK relationships at government and academic levels eg FCDO in-country offices/health advisor network/TDDAP, DHSC GHS programmes (eg. IHR, AMR) and MRC units.

16. Since 2020 the team have rapidly adapted to deliver both remote and in-person support due to COVID-19 related restrictions. This blended delivery model has enabled UK-PHRST to continue to support outbreak response during the pandemic and facilitated additional opportunities for FETPs and reservists. However, UK-PHRST has on occasion been unable to respond to GOARN requests due to insufficient CDT staff availability and/or because it does not have deployable expertise in Risk Communication and Community Engagement (RCCE), a profession that is increasingly being requested as an integrated element of outbreak response. In its strategic framework, UK-PHRST recognises the need to strengthen the CDT resource to respond to more requests and to create more deployment opportunities through strengthened bilateral partnerships.

Research

17. UK-PHRST delivers multi-disciplinary research with global partners that improves the effectiveness of outbreak response. To date UK-PHRST has undertaken 40 research studies across a range of geographies covering outbreak pathogens, vaccine strategies, diagnostics, clinical management, IPC, intervention delivery, epidemiology, and mental health. For example, UK-PHRST research validated use of cutting-edge laboratory techniques such as MinION sequencing and multi-pathogen diagnostics in low resources settings.

18. UK-PHRST’s research has also led to major externally funded research projects, e.g. a clinical trial of an Ebola virus disease vaccine in the Democratic Republic of the Congo, and a study of optimal case management for pneumonic plague in Madagascar. UK-PHRST has continued to deliver new projects during the COVID-19 pandemic using innovative approaches, contributing to COVID-19 preparedness and response efforts globally.

19. UK-PHRST recently commissioned a series of external stakeholder interviews and performed a systematic analysis of gaps in research evidence in outbreak prevention, detection, and response in LMICs to inform the development of its research strategy. This work highlighted significant gaps in research evidence and suggested the need for a research framework comprising rapid and responsive operational research

complemented by a parallel programme of scheduled multi-disciplinary research aligned with Global Health Security (GHS) Theory Change (ToC) outcomes. It also highlighted the need to prioritise research dissemination, develop pathways to impact that improve public health practice and foster genuine co-leadership in research delivery with LMIC partners.

20. Strengthening research capacity will also support outbreak response, including rapid research during outbreaks to improve response effectiveness and the provision of additional expertise in the CDT.

Capacity Development

21. Capacity development activities are embedded within UK-PHRST deployments and research projects across LSHTM and UKHSA. For example, early in the COVID-19 pandemic, UK-PHRST trained Nigeria CDC microbiologists and developed their capacity to conduct whole genome sequencing while working on a Monkeypox project. Subsequently, Nigeria CDC produced their first SARS-CoV-2 genome, and they continue to provide this service independently. Additionally, UK-PHRST has prioritised equity in research partnerships with LMICs through the co-identification and co-creation of research proposals, thereby ensuring LMIC researchers build skills and knowledge in developing and delivering research that genuinely meets their needs.

22. UK-PHRST also provides standalone training and education projects to develop skills and capacity and works with global, regional and country partners to support development of policies, protocols, training and actions in outbreak preparedness and response. For example, UK-PHRST has delivered educational support and supported digital learning through (i) an MSc in Public Health and BSc in Medical Laboratory Science in Sierra Leone, (ii) an online MSc level short course on "Pandemics: Emergence, Spread and Response", and (iii) the first Massive Open Online Course on tackling COVID-19, which was completed by over 236,000 participants from 184 countries worldwide, 123,516 of whom were from LMICs.

23. In response to external review, UK-PHRST developed a capacity development strategy informed by an external stakeholder analysis, a rapid internal review of capacity development and a rapid workforce evaluation. This highlighted the need for core UK-PHRST resources dedicated to developing, delivering, and managing the strategic direction of capacity development activities within the UK and in LMICs. The new capacity development strategy would also facilitate coordination and alignment of capacity development activities in specific technical areas.

Strategic Alignment

Table 1: UK-PHRST alignment with UK policy and government department objectives

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	Objectives met by the UK-PHRST
DHSC priority outcomes 2021-22	Protect the public's health through the health and social care system's response to COVID-19. Improve, protect and level up the nation's health, including reducing health disparities.
Global Health Security	Alignment and synergies with other DHSC Global Health Security programmes, particularly the IHR Strengthening Project
UK Integrated Review (2021)	The Integrated Review commits to working to strengthen GHS and supporting health systems using our ODA. It states that infectious disease outbreaks are likely to become more frequent in the future and commits to priority actions including strengthening pandemic preparedness, building on the PM's five-point plan to prevent future pandemics. In addition, it prioritises 'the UK as a Science Superpower'.
Sustainable Development Goals[11]	The UK-PHRST contributes to SDGs 3, 5, 10, 16 and 17.
G7 Leaders' Statement (2021)	Strengthen the global health and health security system to be better prepared for future pandemics and to tackle long standing global health threats, including AMR.
G7 Carbis Bay Health Declaration (2021)	To ensure all countries are better equipped to prevent, detect, respond to and recover from health crises.
G7 Health Ministers' Declaration	The G7 Health Ministers' Declaration emphasises the urgent need to strengthen our ability to better anticipate, prevent, detect and prepare effectively for health threats.
International Development and Global Health Strategies	The International Development Strategy states that we will reduce the risk of future global health threats, building stronger health systems, strengthening the WHO and improving global health surveillance and response capability. The Global Health Strategy also includes global health security priorities.

3. Case for Change

A. Business needs

24. The UK-PHRST is at the forefront of the UK's efforts to secure global health security and works directly with key global stakeholders to support and improve outbreak response and develop capacity in ODA-eligible countries. It fosters government-to-government collaboration, offers field support, and brings academic rigour to build the evidence base.

25. While leadership in outbreak preparedness and response in LMICs is growing e.g. through Africa CDC and similar institutions, as the COVID-19 pandemic has demonstrated, there remains considerably more work to be done to strengthen global response capabilities. The UK-PHRST model – an agile partnership between a world class national public health institute (the UKHSA) and an internationally-renowned

academic partner at the forefront of global health research (LSHTM) - is globally unique and widely respected. It remains the most effective way to deliver the triple mandate as the two organisations are able to draw from significant expertise and experience in operational response and research in infectious disease outbreaks.

26. Since launching in 2016, the UK-PHRST has created an experienced multidisciplinary team of medical and scientific experts. Experienced, high-quality staff are key to the success and international reputation of UK-PHRST. The current short-term nature of staff contracts has led to increased turnover of experienced staff and recruitment challenges. The proposed new three-year uplifted funding for the UK-PHRST will therefore allow the programme to maintain and strengthen its ability to deploy rapidly, expand the scope of its research, and intensify its capacity development activities.

B. Benefits

27. The UK-PHRST will continue to provide a vehicle for HMG to respond rapidly to requests from LMICs to help prevent, detect, prepare for and control epidemic threats, to save lives overseas, and to protect the UK population from imported outbreak-prone infectious diseases. Rapid action at the outbreak source stops infectious disease threats from becoming broader health emergencies, while robust research evidence and local capacity development significantly improves the effectiveness of ongoing and future responses.

28. The proposed three-year funding allocation will assist with staff retention and attract high-quality staff to longer-term roles, enable a more ambitious longer-term research and capacity development agenda, and provide business continuity to assure international stakeholders. This will help to secure the position of UK-PHRST as an international leader during rapid changes to the public health landscape.

29. In addition to maintaining its current capabilities, an uplift to the existing budget will allow UK-PHRST to expand and strengthen its capacity to deliver across the remit. In the first half of year 1 (2022-23), UK-PHRST will focus on building the team and growing the portfolio with the aim of operating at this greater capacity by years 2 and 3. The key new developments and deliverables over this period will be:

1. Deployments: Increased resource in outbreak response

30. UK-PHRST will expand its capacity to support multiple and simultaneous operational deployments in outbreak response in LMICs. It will increase the number of its deployments by creating new bilateral partnerships with Ministries of Health in LMICs and strengthening the depth and breadth of its deployable technical experts, including:

- A new resource in Risk Communication and Community Engagement (RCCE), a skill which is frequently requested in GOARN and bilateral requests for assistance but which the UK-PHRST currently lacks;

- New resources in genomics to build on the considerable expansion in technical support to assess new variants of SARS-CoV-2 and increase molecular genomics in outbreak prone pathogens using targeted as well as pathogen agnostic methods; and
- More senior expertise in core technical areas including epidemiology, microbiology and IPC, which remain the most frequently requested outbreak discipline.

31. This increased capacity will enable UK-PHRST to deliver, with LMIC partners, rapid and effective responses more often. It will also increase opportunities to build the evidence base and deliver capacity development projects during and in the wake of emergency responses. UK-PHRST will complement and, where appropriate, work in partnership with the FCDO's UK Emergency Medical Team, resulting in greater coherence across HMG response capabilities.

2. Research: Strengthened uptake and impact

32. UK-PHRST will deliver a more ambitious, long-term and structured research programme that will identify and prioritise research activities according to partner needs and gaps in evidence. It will better facilitate incorporation of implementation science studies to improve the effectiveness of research evidence dissemination and uptake and thereby strengthen its impact, and will create and embed new monitoring, evaluation and learning systems into routine practice. It will expand the team to deliver these priorities through:

- The creation of an implementation science team to evaluate dissemination and uptake of evidence-based practice;
- New resources in identified gaps in molecular epidemiology and genomics, epidemic risk prediction and application of digital technologies, and;
- More senior expertise in core research disciplines including social science, mental health and clinical research.

33. Much of the additional research resource will be core deployable and will therefore bolster the expertise and capacity in outbreak operational responses. However, the additional resource will also include non-core deployable researchers who can continue to deliver research activities during deployments, thereby strengthening team resilience and sustainability of the research programme.

3. Capacity development: Improved governance, accountability, quality and timeliness

34. As now, the capacity development programme will include activities integrated into operational deployments and research projects along with specialised projects and teaching and training programmes. UK-PHRST will support capacity development at local, national, regional, and global levels, working with Ministries of Health, national and regional public health institutes, and academic institutions in LMICs. It will work closely with partners to co-design and collaboratively deliver projects, including during emergency responses.

35. To improve governance, accountability, quality and timeliness of the capacity development programme, UK-PHRST will create a dedicated 'Capacity Development, Training, and Learning' team to lead strategic direction, coordinate activities and consolidate gains. The new team will be led by an experienced public health consultant who will be the focal point of capacity development activities and will include additional resources in education, training and digital content design. This new team will work across the operational deployments and research teams to enable UK-PHRST to deliver a more coherent, longer-term and sustainable approach to capacity development, and will also build resilience and facilitate rapid responses in emergency situations when needed.

4. Partnerships: Extended, strengthened and more equitable

36. UK-PHRST will provide more effective support to LMICs through strengthened, extended and more equitable partnerships, working towards genuine equity, including greater transparency and project leadership by LMIC partners to ensure it meets partner needs. For example, a concept note on how Africa CDC and UK-PHRST will work in partnership is in development and will form the base of future collaborative activities and how the two organisations will work across the UK-PHRST mandate.

37. Supported by increased technical and project management resources, UK-PHRST will broaden the geographical scope of its activities across the triple remit. It will continue to work closely with LMIC institutions that are demonstrating leadership, such as Africa CDC and Nigeria CDC, and will use existing networks to expand collaborations with similar agencies, public health institutes, Ministries of Health and universities in other outbreak-prone global regions, including in the Indo-Pacific region and Central and South America. UK-PHRST will consolidate and broaden existing UK academic links including through collaborations with the University of Oxford Pandemic Sciences Centre, LSHTM Health in Humanitarian Crises Centre and newly formed LSHTM Centre for Epidemic Preparedness.

5. Procurement Route

38. The UK-PHRST is currently delivered through a partnership between UKHSA and LSHTM. We recommend that this partnership should be continued into the next phase of the UK-PHRST.

39. The UK-PHRST model – an agile partnership between a world class national public health institute (UKHSA) and an internationally-renowned academic partner at the forefront of global health research (LSHTM) - is globally unique and widely respected. The two organisations are able to draw from significant expertise and experience in operational response and research in infectious disease outbreaks. As the UK's national public health institution, UKHSA is uniquely positioned to deliver this work drawing on its globally recognised expertise in global health and infectious diseases and established technical relationships with other national public health institutes and WHO.

40. The ITAD external evaluation stated, 'There is evidence that UK-PHRST to a large extent work as a complementary and coordinated partnership between the two main consortium partners, PHE[2] 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. 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.'

41. The report also noted there was wide consensus that the current consortium composition would benefit from being more inclusive of a broader range of academic institutions, to adequately counter research gaps across multiple disciplines. With LSHTM as the lead academic partner, the UK-PHRST will seek to leverage and contribute to the many established work of relevant academic partners through collaborations, both in the UK and in LMICs.

42. In terms of UK academic partnerships, UK-PHRST has developed strong links with the University of Oxford, Liverpool School of Tropical Medicine (LSTM), the University of Glasgow and the University of Sussex. UK-PHRST will continue its formal collaborative agreement with Oxford University, which will provide and lead a significant portfolio of clinical research and research in One Health and implementation science. UK-PHRST will also continue to work with LSHTM on the development of rapid diagnostics and has formed formal partnerships with LSHTM centres of particular strategic importance: The Health in Humanitarian Crises Centre, the Centre for Evaluation, and the newly formed Centre for Epidemic Preparedness and Response.

43. For LMIC academic partners, UK-PHRST will continue to work closely with institutions that are demonstrating research leadership such as Africa CDC and Nigeria CDC and aim to broaden and deepen partnerships with relevant LMIC universities at the vanguard of outbreak preparedness and response. The After-Action Review of the UK-PHRST in January 2021 emphasised the importance and value of co-ownership and co-creation. Of particular interest in this regard are the Medical Research Council units in the Gambia and Uganda that have been units within LSHTM since February 2018. In addition, Oxford

[2] Now UKHSA as of 1 October 2021

University has permanent tropical infectious diseases research centres in various sites, including Kenya, Thailand, Vietnam, Nepal, Laos, and Myanmar. UK-PHRST will strengthen LMIC academic partnerships through these links.

44. While research delivery and partnership working with LMICs have broadened, few have been in South East Asia and none in Central and South America. The need for greater south-south collaborations in outbreak preparedness and response research to enable exchange of mutually relevant resources, technology and knowledge between LMICs has also been highlighted. One partnership that will strengthen such a collaboration is the University of Brasilia in Brazil. This is a new LMIC partner that was identified through an existing professional network. The university was approached because it is the leading academic institute in South America for developing novel and innovative approaches for rapid outbreak detection including digital tool development, has strong research collaborations with African lusophone countries, and has a long-standing track record in international field epidemiology training programmes. Discussions with other potential partners are underway and more detail will be included in the strategic framework.

45. Downstream existing contracts will be extended or adjusted to maintain arrangements and continue to meet project objectives in the immediate term. All new procurement will be carried out in accordance with UKHSA and LSHTM procurement policies, with appropriate tender processes undertaken when spending thresholds are reached or contract end dates reached. The programme's procurement route will ensure procurements offer VfM and are compliant with relevant legal, regulatory and policy requirements. Any procurement undertaken by sub-contractors, programme partners or collaborators will be in line with the programme policies of UKHSA and LSHTM. Recognising there is a pay disparity between the organisations which is outside of the remit of the UK-PHRST to address, the UK-PRST has been focusing on ensuring there is representation from both organisations at its senior levels.

46. At a programme level, all direct procurement will be completed with options appraisals and regular internal audit to ensure all purchases consider the best value for money options available. This programme requires only a very small amount of stock to support delivery, limited to small volumes of laboratory consumables/reagents and also personal deployment kits. Stock numbers for these items will be regularly updated.

58. Under this preferred funding scenario, the UK-PHRST would continue to deliver the programme as now. The additional funding will be used to: broaden activities, collaborations and partnerships; improve coordination; increase the number and scope of outbreak and emergency response deployments; deliver a research strategy that strengthens technical expertise, dissemination and pathways to impact; and create a dedicated team to lead strategic direction, coordinate activities and consolidate gains in capacity development.

59. All new deployable roles will also contribute to the UK-PHRST's expanded research and capacity development outputs. An augmented core management team with additional programme support staff is critical to ensuring the deployments and business functions of a larger team are met in line with expectations to deliver to time and budget. This has been reflected in new posts to sit within the operations team.

60. The proposed appointment of a senior comms manager will allow the team to broaden external engagement, raise their profile and increase opportunities across the remit through the development and implementation of a comms strategy for the team. This is of particular value for increasing the profile of the UK-PHRST which will support the development of new partnerships.

61. An increase in occupational health costs is required to support increased number of core and reservist staff to be medically cleared within Y1.

62. The increase in research staff costs reflects the strengthening of the research team which will include:
    - The creation of an implementation science team (funding of three new posts)
    - Increased capacity for the social science, mental health and epidemiology research teams (funding of one new post in each)

65. Development of the UK-PHRST's research capacity and research support infrastructure, and focus on growing partnerships and collaborations, will enable delivery of an expanded research programme in years 2 and 3 to generate vital evidence on outbreak responses and preparedness. This is reflected in the increased research activity spend.

66. The dedicated budget lines on Capacity Development, Training, Education and learning reflect increased investment including:
    - The expansion of the dedicated Capacity Development, Training and Education Team
    - Increased scope in partnership working on capacity development and training

- A Public Health consultant recruited to lead, strengthen and drive implementation of Training and Capacity Development

67. Monitoring, Evaluation and Learning (MEL) costs reflect the continued role of the recently recruited MEL lead within the programme who will continue to strengthen the programme's MEL activities. The post holder will also work closely with the expanded Capacity Development, Training and Education Team to further programme learning for both the UK-PHRST and partners. This budget line also includes scope for an externally funded evaluation which will be explored.

Useful link: ODA VfM guidance

7. Management Arrangements

68. Existing management and governance arrangements will be maintained, including:

- **DHSC GHS Programme Board –** Oversight of the UK-PHRST project is through the GHS Programme Board, to which the UK-PHRST provides regular reports, including progress on deliverables, key achievements, and risks.
- **UK-PHRST Project Board –** The UK-PHRST Project Board advises and provides recommendations on the development and implementation of the UK-PHRST Strategic Framework that reflects its vision, goals and objectives. It provides assurance across the UK-PHRST's triple remit. Membership includes senior UK-PHRST, HMG and NIHR representatives as well as international experts from a range of organisations.
- **UK-PHRST Technical Steering Committee –** The Technical Steering Committee (TSC) acts to support the UK-PHRST to develop and deliver the research and capacity building programme, providing subject matter expertise and strategic guidance. Committee members are drawn from UK-PHRST partner organisations and other academic institutions.
- **Academic Advisory Group** (AAG) - Provides senior academic input into the UK-PHRST's research strategy, ensures continued engagement of senior leadership at LSHTM with the UK-PHRST, strengthens synergies with LSHTM's strategic goals and facilitates linkages with LSHTM Centres and academic groups.
- **UK-PHRST Senior Management Team (SMT)** – Day-to-day governance is managed by the UK-PHRST SMT, comprising a group of eight senior staff representing key work streams and the UK-PHRST Director. The SMT meets fortnightly to monitor progress, discuss challenges, agree actions, review the financial position, and manage risks to the programme.
- **Ethics Committees –** Assurance on ethics is delivered for all UK-PHRST research projects through approval via the ethics committees at UKHSA, LSHTM, and other academic partners as appropriate.

69. The following structures will continue to be used to ensure strong project and risk management:
    - **Deployments –** Rigorous processes, reviewed and strengthened since the initiation of the programme, are in place to support all deployment travel. All deployments and travel involving logistics support are assessed through a semi-structured post-deployment debriefing session, with the aim of identifying areas to strengthen and inform future practice. End of Mission Reports summarise each deployment and are circulated to HMG partners. An annual After Action Review involving external stakeholders takes place to assess and critically evaluate processes and gaps.
    - **Lessons Log –** The UK-PHRST is committed to continual learning and reflection to ensure that processes are always strengthened as a result of capturing and acting on lessons systematically.
    - **Research –** Robust research management processes are well established, and include research proposal scrutiny by the TSC, careful planning of research project budgets and resourcing, regular monitoring of progress against milestones, and end of project meetings with the Research Management Group to identify lessons learnt and potential next steps.
    - **Risk Management –** The UK-PHRST is committed to managing key risks to delivery and has an operational risk register in place which is reviewed and updated quarterly. The UK-PHRST are represented on the UKHSA Health Protection and Medical Directorate Risk Leads group. The UK-PHRST risk register was independently audited in 2019 as part of programme management and improvement processes.
    - **Audits –** Regular internal audits of systems and practices will take place, with lessons identified leading to appropriate updates to internal processes. This includes auditing a range of project management activities including finance, logistics and travel. The UK-PHRST management will actively support any requests from the Government Internal Audit Agency.
    - **Monitoring and Evaluation –** A new monitoring and evaluation framework is now in place with strengthened processes to communicate log frame indicator progress on a quarterly basis.

70. The GHS delivery team will be given the opportunity to comment and sign off on project plans where relevant, including any project documents which will be published.
71. Climate: For 22/23, the project will undertake a climate risk screening. This will involve looking at potential risk areas such as waste management and offsetting travel emissions. If found to be susceptible to climate risks, the project will then undertake a climate risk assessment. This will ensure the project will align with the UK's climate and environment commitments.
72. All UK-PHRST activities will determine and consider the social equity issues that exist in the contexts and circumstances that the team works, as well as those that may occur or be exacerbated because of UK-PHRST work.
73. UK-PHRST is undertaking focused and continual work to:
    - Upskill and develop the teams collective ability to recognise how issues pertaining to social equity and protected characteristics are connected to its work.

- Understand how they manifest and influence its work remit and partnerships.
- Establish and implement practical steps in addressing social equity issues have been identified with the support of partners.
- Determine how to appropriately advocate and draw focus to issues of social equity within infectious disease outbreaks, within its sphere of influence.

8. Monitoring and Evaluation

A. Monitoring

74. A MEL plan has been developed to guide the implementation of a refreshed UK-PHRST adaptive logframe. The logframe contains the proposed results (at the impact, outcome and output levels), a set of associated SMART indicators, agreed targets and data sources. UK-PHRST adopts an adaptive approach to the implementation and monitoring of its logframe. Learning generated from our data will be regularly reviewed to inform our progress. Data will be generated from diverse data sets including surveys, feedback forms, research reports, training reports, case studies and meeting minutes. The logframe will be reviewed and updated annually as required. Quarterly reports will be produces to support monitoring meetings which will be held quarterly at the project and programme board level.

75. Data is collected by monitoring officers. Each monitoring officer is assigned a result at the impact, outcome or output level, for which they compile and publish the data in a central database. Generated data originates from both sides of the partnership – UK-PHRST and the partner country/organisation. Both arms of the partnership sign off on the data before it is submitted. In addition, a partner survey is held at least twice a year. Partner feedback provides a partner perspective on the data and also serves to verify its authenticity.

76. All data generated form the basis for UK-PHRST's learning. External and internal learning sessions will be scheduled to discuss and reflect on learning from data generated and the implications for the development of the project. Learning data will enable a robust and applied evidence base to embed in the work of UK-PHRST.

B. Evaluation

77. Plans for an external UK-PHRST evaluation of the programme during the new three-year funding cycle are currently under development. Along with ongoing monitoring and learning, this will generate important evidence needed to inform decisions about the impacts, outcomes and outputs over the lifespan of UK-PHRST activities, contributing to a more comprehensive understanding of the value added by UK-PHRST. We have

designed UK-PHRST's monitoring, evaluation and learning (MEL) system with this in mind.

78. Routine monitoring feedback and learning on UK-PHRST's performance will help highlight areas of the project's quality and performance that require immediate and longer-term improvement. Additionally, implementation science – research into the uptake of evidence into policy and practice (its impact) - will form a central plank of UK-PHRST's research strategy.

79. An external impact/outcomes evaluation will take place close to the end of the project cycle and would be managed internally by UK-PHRST's MEL lead and programme team. Areas of assessment will include:
    - Whether UK-PHRST has produced the intended results (impact, outcomes and output) – for whom and under what circumstances
    - What, if any, unintended results occurred (positive and negative)?
    - What were the enablers of and any barriers to success?
    - The extent to which UK-PHRST represents the best possible use of resources for the project outcomes.
    - The extent to which the outcomes can/will be sustained.

80. UK-PHRST's MEL lead will, in addition, oversee mini-evaluations tracking UK-PHRST's ongoing progress in selected (to be agreed) thematic areas to understand UK-PHRST's progress in the area(s) and feed into general learning and the wider evaluation. We will also record evidence of VfM annually. Finally, the UK-PHRST conducts an annual review at the end of each financial year. The project embeds learning from this on an ongoing basis through reviewing the recommendations made and incorporating into planning for future years.

C. Learning

81. We are committed to learning at the UK-PHRST to support continuous improvement of the programme delivery – internally and externally. Through our learning we seek to achieve 4 key outcomes:
    - Create a team and partnership culture of evaluative thinking & learning that underpins all activity.
    - Continuously review the evidence we generate to understand the extent to which the project is on track.
    - Improve project direction, decisions & activities based on emerging learning.
    - Influence (with partners) related policy and practice in the arena directly related to the learning as well as more widely in the related sector.

82. UK-PHRST's approach to MEL embeds regular reviews of emerging knowledge from data as well as our experiential learning. The evidence generated serves as a guide to

improve the project's direction and approach. It purposefully links the generation of knowledge to its use by project teams – UK-PHRST and its partners.

9. Communications

83. Responsibility for sourcing and communicating content for UK-PHRST is coordinated between communications leads from UKHSA and LSHTM with significant input from the communication team at DHSC.

84. The UK-PHRST formally communicates to the Global Health Security Delivery Team on a regular basis on programme activity, financial spend, programme risks and against MEL indicators, including: Bi-monthly highlight reports, quarterly financial updates at both the institutional and programme level, quarterly updates of progress against log frame, end of mission reports and research progress and final reports.
    - A communications strategy for the new funding period is currently in development, however communications objectives for the UK-PHRST will include:
    - Adopting a partnership approach to communications to strengthen global networks and establish increase engagement with in-country partners
    - Bridge the gap between research in practice by disseminating research findings from UK-PHRST members and in doing so raise the profile of the UK-PHRST.
    - Maintain and build on important strategic partnerships in outbreak response, strengthening the UK's voice and visibility through supporting partner capacity and influencing the global health security architecture
    - Contribute to a One HMG approach in the UK and abroad and support continued global health engagement beyond 2022, including preparations for the Comprehensive Spending Review and through the transition from PHE to the new UKHSA.
    - Communicating and recording the impact of deployments post deployment.

85. The UK-PHRST Communications Officer is currently the main point of contact and is primarily responsible for sourcing and communicating content pertaining to UK-PHRST's work. The role is based at LSHTM but meets with cross programme colleagues on a regular basis. Within the next year, the team intends to recruit a communications lead at UKHSA in recognition of the importance that robust communication can contribute in the overarching objectives of the team.

86. The agreed communications protocol for the UK-PHRST covers commission and communicating approvals for proactive and wider proactive media activity, reactive media requests/communications and publications. A UK-PHRST communications grid is also in place to determine the accountability of general communications outputs, including presentations, website outputs, social media, blogs and academic journal and through external channels including The Global Health Network, Pandemic Action Network, Gates Venture and Devex.

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10. Additional Links

FCDO Programme Operating Framework
ODA value for money guidance
Government Procurement Agreement (WTO)
EU Consolidated Public Sector Procurement Directive (2004)
HM Treasury Green Book

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Annex 1

Background to UKHSA and LSHTM

87. The mission of the United Kingdom Health Security Agency (UKHSA) is to provide health security for the nation by protecting from infectious disease and external hazards. We are a trusted source of advice to government and to the public, focusing on reducing inequalities in the way different communities experience and are impacted by infectious disease, environmental hazards, and other threats to health.

88. The UKHSA mission is challenging, innovative and in the spotlight. We will work to ensure our people have the diverse skills, experiences and backgrounds we need to thrive, that our staff are representative of the communities we serve and feel valued and enabled to play their part in delivering our work. Creating our working culture is an ongoing process which we are developing by listening and learning together, hearing and acting upon diverse voices and opinions to develop a common sense of identity and effective ways of working.

89. The London School of Hygiene & Tropical Medicine (LSHTM) is renowned for its research, postgraduate studies and continuing education in public and global health.

90. The LSHTM mission is to improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

91. LSHTM embraces and values the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements in contribution to improving health worldwide. We believe that when people feel respected and included, they can be more creative, successful, and happier at work. While we have more work to do, we are committed to building an inclusive workplace, a community that everyone feels a part of, which is safe, respectful, supportive and enables all to reach their full potential.

92. The UK-PHRST monitors infectious diseases globally to identify situations where the deployment of specialist expertise can mitigate these threats. It rapidly deploys multidisciplinary public health professionals on behalf of the UK Government to support outbreak responses in areas of need in LMICs, following direct requests for assistance from national governments or the World Health Organisation. The UK-PHRST oversees and co-leads a growing portfolio of research and capacity development projects that support and strengthen infectious disease outbreak preparedness and response with a consortium of international and national partners.

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Annex II: Strategic framework Summary

93. In this context the UK-PHRST's updated Strategic Framework sets out our approach for improving the impact and effectiveness of the programme over the next three years. We have used our experience and learning from the last five years, together with systematic internal and external evaluations and evidence, to develop the framework.

94. The framework has three underpinning principles that are critical to programme delivery across the remit:

- Partnerships: Developing equitable partnerships with shared visions and goals to better realise the programme's potential
- Impact: Embedding monitoring, evaluation and learning (MEL) across the programme to increase impact and evidence including the sustainability of our actions
- Learning: Establishing a culture and processes to assure continuous learning across the project. Applying 5 years of experience including working through the pandemic together and from external and internal reviews

95. Partnerships will be expanded and strengthened, activities will focus on genuine co-creation and co-delivery to meet partner needs while fulfilling the UK-PHRST remit. A culture of continuous learning is also key to ensuring actions are appropriate, targeted, are evidence based and have impact. To strengthen this, UK-PHRST will create and embed a cross-cutting monitoring and evaluation programme. All UK-PHRST activities will be evaluated in terms of their impact on equity and human rights. UK-PHRST's staffing capacity will also be scaled up in terms of depth and breadth to increase impact, build resilience, enable a more ambitious research and capacity development agenda, and provide business continuity to assure international stakeholders.

96. The strategic framework has been developed across each component of UK-PHRST's remit with the following priorities:

1) OUTBREAK RESPONSE
    a. Improve IMPACT of deployments
        i. Review and improve deployment models
        ii. Support more frequent and simultaneous operational deployments
        iii. Facilitate the increased use of the bilateral deployment mechanism
    b. Provide DEPLOYABLE CAPACITY which is fit for purpose to support international outbreak responses across the globe through the provision of technical expertise.
2) RESEARCH
    a. Create a more ambitious, long-term research programme structured into themes aligning with Global Health Security Theory Change outcomes
    b. Foster greater co-creation and LMIC partner leadership in research delivery
    c. Prioritise research according to partner needs and gaps in evidence
    d. Prioritise operational research complemented by a parallel programme of scheduled multi-disciplinary research

   e. Focus on research uptake into policy and best practice including the addition of implementation science capacity
3) CAPACITY DEVELOPMENT
   a. Establish a capacity development, training and education pillar including dedicated public heath consultant and support staff leading strategic direction and enabling delivery of impactful capacity development projects
   b. Build a robust governance process to ensure accountability, quality and timeliness of capacity development projects prioritising partner needs
   c. Build and maintain UK-PHRST's partnership base by working closely with LMIC institutions that are demonstrating leadership and using existing networks to expand collaborations in other outbreak-prone countries and regions
   d. Define the operational environment of capacity development through the introduction of a conceptual framework
   e. Provision of a framework to develop capacity development across the remits
4) CROSS-PROGRAMME
   a. Resource and embed monitoring, evaluation and learning across the programme through the introduction of new processes, tools and assessments
   b. Deliver sustainable actions through applying UK-PHRST sustainability plan across capacity development and research
   c. Resource and embed equity and Human Rights r across the programme through the introduction of new processes, tools and assessments
   d. Strengthen human resourcing increasing depth and breadth of expertise to deliver a more ambitious and resilient programme
   e. Develop hybrid and remote operating modalities to increase programme efficiency

97. Feedback from evaluations and stakeholder engagement highlighted that partners want flexibility and responsiveness in the support that is offered. New situations will emerge, and UK-PHRST must be responsive to changing needs while ensuring overall programme sustainability. Therefore, the programme will have two workstreams:

    - An emergency workstream which has the agility to respond rapidly to outbreaks, including real-time delivery of operational research and capacity development activities.
    - A proactive scheduled workstream that systematically identifies capacity and evidence gaps in outbreak preparedness and response and develops a programme of scheduled and targeted research and capacity development activities.

98. These workstreams will allow the UK-PHRST to continue to respond rapidly to emerging situations and deliver longer term, directed actions that improve preparedness and ensure more sustainable outcomes. There will be flexibility across the workstreams to adapt to shifting priorities.

99. The UK-PHRST has greatly increased the speed and effectiveness of the UK’s response to global outbreaks. The underpinning principles, incorporation of two workstreams and mandate priorities will ensure UK-PHRST achieves its objectives for 2022-25:

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1) Support partners in LMICs to investigate and respond to disease outbreaks rapidly at source, with the aim of stopping a public health threat from becoming a health emergency.
2) Identify research gaps and deliver rigorous research with partners that improves the evidence base for best practice in disease outbreak prevention, detection and response in LMICs.

3) Support the development of in-country capacity for an improved and rapid national response to prepare for, prevent, detect and respond to disease outbreaks.

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ANNEX III:UK-PHRST Logframe 2022-23

RESULT	INDICATORS	ANNUAL TARGET/SOURCE
IMPACT		
Global population, including the UK, safer and more secure from global health security threats.	• Proportion (%) of ODA-partner countries with improved public health systems and/or plans for effective epidemic preparedness and response, evaluation and learning.	**Target:** 50% of partner countries can evidence improvement in infrastructure, personnel, and evaluation/learning systems in place or have plans to develop or upgrade existing systems. **Source:** Feedback from partners; evidence of those structures.
OUTCOMES (3)		
Outcome 1	Indicator 1.1	
Epidemic preparedness and response effectively contributed to through technical collaboration with partners	• Proportion (%) of UK-PHRST deployments where partner institutions have identified tangible contributions made by UK-PHRST team.	**Target**: In ≥90% of deployments UK-PHRST partners have policies, strategies or ways of working in place or in development that have been informed by UK-PHRST's deployment support for outbreak response and preparedness. **Source:** Feedback forms from partners; Monitoring and evaluation surveys; WHO End of Deployment Evaluation forms; After Action Reviews.
Outcome 2	Indicator 2.1; 2.2	
Research contributes to a robust body of evidence in public health practice and policy	• Proportion of research studies considered by practice or policy-related stakeholders locally, nationally, regionally or internationally.	**Target:** ≥50% of research studies are presented and/or discussed at a policy or practice related forum locally, nationally, regionally or internationally. **Source**: Case study reports; Partner surveys; evaluation reports; Citations in partner organisations literature/guidance/SOPs/Government and partner policy.

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	• Proportion of partners from ODA-eligible countries who assess research collaboration with UK-PHRST as positive (equitable and effective).	**Target:** 80% **Source:** Feedback from partners; evidence of those structures.
Outcome 3	Indicator 3.1	
Capacity of partners from ODA countries and UK-PHRST is enhanced for epidemic preparedness and response.	• Proportion (%) of partners from ODA-eligible countries that report skills and knowledge gained are applied in their individual or organisational work.	**Target:** ≥80% **Source:** Case study reports; Partner surveys; evaluation reports.
OUTPUTS (6)		
Output 1.1	Indicators 1.1.1, 1.1.2	
UK-PHRST trained team members deployed to provide effective support for epidemic preparedness and response within ODA eligible countries.	• Proportion (%) of deployments that occur within requested timeframe.	**Target:** 100% **Source:** Partner surveys
	• Proportion (%) of deployments assessed as useful.	**Target:** ≥80% **Source:** Partner survey
Output 1.2	1.2.1; 1.2.2	
Tried and tested resources that support deployments are available or co-developed and shared to support	• No of resources made available or co-developed and shared.	**Target:** ≥10 **Source:** Partner surveys; WHO End of Deployment Evaluation form; After Action Reviews, End of mission reports

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epidemic preparedness and response	• Proportion of partners from ODA-eligible countries who assess resources as useful.	**Target:** ≥80% **Source:** Partner surveys
Output 2.1	2.1.1; 2.1.2	
Relevant research equitably identified and delivered.	• Proportion of jointly developed and delivered research studies.	**Target:** ≥80% **Source:** Research proposals, research reports.
	• Proportion of partners from ODA-eligible countries who are first or senior authors on peer-reviewed joint publications	**Target:** 25% of partners are first or senior authors. **Source**: Final reports, publications
Output 2.2	2.2.1, 2.2.2, 2.2.3	
Research findings influence practice and policy at local, national, regional and international levels through identification of and engagement with appropriate pathways	• No of publications/other research outputs produced from UK-PHRST and partner research.	**Target:** ≥15 **Source:** Publications list
	• No of pathways/avenues engaged with to make research findings more visible.	**Target:** ≥5 different avenues identified **Source:** Research progress and final reports.
	• Proportion of partners from ODA-eligible countries who assess pathways/ avenues to be effective in making research visible and potentially useable.	**Target:** ≥80% **Source:** Partner surveys

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Output 3.1	3.1.1; 3.1.2	
Collaboratively delivered initiatives strengthen capacity of partners and UK-PHRST team at individual, organisational and systems level	• No and type of initiatives (courses, technical workshops, joint monitoring visits, CoPs etc.) that support capacity development/sharing of partners from ODA countries and UK-PHRST at the appropriate level.	**Target:** ≥10
		Source: Reports on events
	• Proportion of partners from ODA-eligible countries who report initiatives useful and report applying the skills/knowledge gained.	**Target:** ≥80%
		Source: Partner surveys
Output 3.2	3.2.1; 3.2.2	
Reflection & learning are enabled with partners and internal to UK-PHRST.	• No of reflection and learning opportunities (resulting from capacity development and other activities) held jointly with partners from ODA-eligible countries and internally within UK-PHRST.	**Target:** ≥6 (external learning); ≥3 (internal learning)
		Source: Learning sessions log
	• Proportion of participants who assess learning sessions as useful.	**Target:** ≥80%
		Source: Feedback surveys
Sustainability of UK-PHRST and partner work		
	UK-PHRST has sustainable ways of working clearly identified and implemented for all its activities as per its sustainability plan.	**Target:** By end 2022/2023 ways of working identified and operational
		Source: Sustainability taskforce quarterly meetings