



**UK PUBLIC HEALTH RAPID SUPPORT TEAM**

Implementation Plan

2019 - 2020

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## **Introduction**

The UK Public Health Rapid Support Team (UK-PHRST) is a novel and integral part of Her Majesty’s Government (HMG) response to global health security, contributing to the strategic objectives of prevention, detection and early response to global health threats. Formally launched in November 2016, the UK-PHRST’s triple mandate is to integrate outbreak response, conduct/deliver innovative research to generate evidence on best practices for outbreak control and building capacity for outbreak response in countries eligible for Official Development Assistance (ODA). The UK-PHRST is a partnership between Public Health England and the London School of Hygiene & Tropical Medicine, with an academic alliance with the University of Oxford and King’s College London. The UK-PHRST is accountable to the Department of Health & Social Care (DHSC) and works closely with diverse UK HMG and academic partners and projects, as well as in-country offices of HMG departments (e.g. Department for International Development (DFID), and the Foreign and Commonwealth Office (FCO)), to ensure alignment of UK-PHRST objectives, activities and outputs across the broader HMG global health security, health system strengthening and research agenda. In addition to cross-UK collaborations, the UK-PHRST works in partnership with local, regional, and international partners overseas, in particular in support of the World Health Organization (WHO) and the Global Outbreak Alert and Response Network (GOARN), to create and strengthen global capacities for outbreak prevention and control. The 2019-20 implementation plan aligns with the UK-PHRST 4-year Strategic Framework 2018-21, Logframe (Appendix I) and Theory of Change, all of which are oriented along the lines of the triple mandate of outbreak response, research, and capacity building, together with the supportive training and project management activities that are based in the UK. The implementation plan follows guidance provided by the DHSC (Appendix II) and highlights how planned activities for 2019-20 meet the UK-PHRST logframe indicators and milestones.

## **Acronyms**

|  |  |
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| ASC | Academic Steering Group |
| CDC | US Centers for Disease Control and Prevention |
| CDT | Core deployable team |
| CL | Container laboratory |
| CREDO | Clinical research during outbreaks |
| COMAHS | College of Medicine and Allied Health Sciences, Freetown, Sierra Leone |
| DFID | Department for International Development |
| DHSC | Department of Health and Social Care |
| EWAR | Early Warning, Alert and Response |
| FCL | Flight case laboratory |
| FCO | Foreign and Commonwealth Office |
| FETP | Field Epidemiology Training Programme |
| GOARN | Global Outbreak Alert and Response Network |
| HAI | Hospital acquired infection |
| HMG | Her Majesty’s Government |
| IPC | Infection prevention and control |
| LSHTM | London School of Hygiene & Tropical Medicine |
| ODA | Official Development Assistance |
| PHE | Public Health England |
| SOPs | Standard operating procedures |
| TDDAP | Tackling Deadly Diseases in Africa Programme |
| UK-PHRST | United Kingdom Public Health Rapid Support Team |
| WHO | World Health Organization |

## **Deployments/Outbreak Response**

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| **OUTPUT #1: DEPLOYMENTS/OUTBREAK RESPONSE** | | | | |
| **BACKGROUND:**  Timely and effective response to outbreaks in countries eligible for Official Development Assistance (ODA) is a core mandate of the UK-PHRST. It relies on (i) fully trained and skilled personnel, including the UK-PHRST core deployable team (CDT), reservists, Field Epidemiology Training Programme (FETP) fellows and other affiliated personnel and trainees, (ii) close horizon scanning for early identification of potential threats and rapid risk assessment, and (iii) operational capacity for rapid deployment (within 48 hours of HMG authorisation) and provision of logistical support to deliver optimal performance in the field.  The UK-PHRST strives to strengthen in-country capacity required for epidemic response, including for epidemiology and data analytics, laboratory support for surveillance and disease detection, clinical case management, social science, community engagement, outbreak logistics and infection prevention and control.  During the last 12 months the UK-PHRST has responded to all international outbreaks for which GOARN issued a request for assistance, as to a number of bilateral requests. These included deployments to (1) an Ebola virus disease (EVD) outbreak in the Equateur Province of DRC (May – July 2018), (2) an outbreak of diphtheria in the displaced Rohingya population in Bangladesh (July – August 2018, as a follow-up to the mission from UK-PHRST’s earlier involvement in January – March 2018), (3) the latest and ongoing EVD outbreak in North Kivu and Ituri Provinces, DRC (August 2018 – present), and (4) a Lassa fever outbreak in Nigeria (February – March 2019).  The response to the ongoing EVD outbreak has been a major area of focus for the UK-PHRST over the last six months, deploying staff to DRC since the very onset of the outbreak (August 2018), through GOARN, but also offering support to WHO in Geneva, as well as deploying bilaterally to Rwanda as part of EVD readiness and preparedness activities. The UK-PHRST has provided support to a clinical trial during the outbreak and is involved in various discussions about operational research in the DRC. Since January 2019, the UK-PHRST has closely supported the development of, and led on, an epidemiological analytical cell for the EVD outbreak, working with WHO and supporting the MoH.  Building on the experience from the last 12 months, key objectives for 2019-20 include:   * continuing to strengthen and build UK-PHRST’s internal capacity by deploying, where possible, CDT members, reservists, and FETP fellows * extending the UK-PHRST CDT capacity by forging relationships with partners in LMICs, including establishing a process by which staff from LMIC partner institutions can be fully trained and deployed as part of the UK-PHRST * strengthening tools for outbreak response, including for surveillance, data analytics, microbiology (flight case laboratory, sequencing) and others, and * steadily move towards a more focused model of deployment, in light of the latest deployment to DRC, whereby the UK-PHRST is in charge of a specific element of the response and provides resources and skills accordingly. | | | | |
| **OBJECTIVE:**  The UK-PHRST stands ready to deploy to epidemic settings within 48 hours’ notice of HMG authorisation, providing rapid risk assessment and expert advice to Ministries of Health in ODA-eligible countries, HMG, WHO/GOARN, and other local and international stakeholders, as well as human, technical, and operational support to reduce the impact of disease outbreaks.  In the context of deployments and operations, and its main outcome (see logframe), the UK-PHRST seeks to improve the speed, skill mix and workforce offered to respond to international outbreaks. More specifically, the UK-PHRST is working toward the following main **outcome indicators,** as per the logframe:   1. Change in UK response to outbreaks in speed and quality. 2. ODA eligible countries and key supporting international partners response to outbreaks strengthened through more rapid UK deployment, research and capacity building 3. Minimum target of UK-PHRST deployments in response to appropriate requests for support with outbreaks and/or public health emergencies.   To do so, the UK-PHRST is working towards strengthening the UK response to outbreaks, including established operational capacity and processes to support rapid deployment for optimal field performance (output 1), with the following main **output** **indicators**:   * 1. Trained cadre of experts deployable within 48 hours for outbreak response. Training includes UN Department of Safety and Security (UNDSS) basic security, UNDSS advanced security, induction, Situational Awareness in Fragile Environments (SAFE), SAFE+, and deployment course   2. Laboratory capacity supported in response through development of a flight case laboratory (FCL) for deployment in ODA-eligible countries   3. Sharing of lessons learned from deployments within the team to continuously improve performance   4. Monitoring framework developed and implemented into operational processes   5. Value for money assessed through benchmarking salaries and training costs of those deployed (including backfilling of reservists) against hiring external consultants. | | | | |
| **ACTION PLAN** | | | | |
| **Activity** | **Target Date** | **Lead Person** | **Anticipated Product or Result** | **Performance Measures and Source** |
| 1. *Change in UK response to outbreaks in speed and quality* | | | | |
| Epidemic intelligence,  horizon scanning and response prioritisation | March 2020 | Deputy Director for Operations | Regular attendance at epidemic intelligence meetings to identify potential deployment needs.  Technical support to the wider HMG for early identification and prioritisation of epidemic response activities.  Regular contact with the GOARN secretariat and partners through weekly partner TCs, as well as during each Request for Assistance, to identify needs and priority activities to support. | At least 80% attendance at epidemic intelligence meetings. |
| 1. *ODA eligible countries and key supporting international partners response to outbreaks strengthened through more rapid UK deployment, research and capacity building* | | | | |
| Mid-point external evaluation | January 2020 | Programme Managers | Mid-point external evaluation completed by supplier and shared with Project Board and DHSC GHS Board. | At least 50% ODA country partner institutions report an increase in capacity for detection, prevention and control of outbreaks.  At least 50% of international partners report increased capacity through support from UK-PHRST.  *(Source: mid-point evaluation)* |
| Establish a process by which staff in at least one ODA partner institution are trained to be part of the UK-PHRST deployment team, and ready for deployment | October 2019 | Deputy Director for Operations | Identification of partner institution  Training of staff | Partner institution identified and agreement in place.  Staff trained and ready to deploy as part of the UK-PHRST reservists |
| Undertake at least one deployment during which at least one staff member from an ODA partner institution is deployed with the UK-PHRST | March 2020 | Deputy Director for Operations | Deployment of staff member from ODA partner institution | Deployment of at least one staff member from ODA partner institution  *(Source: End-of-mission report)* |
| Support the roll-out and strengthening of advanced public health information tools during deployments | March 2020 | Deputy Director for Operations | Set up and/or strengthening of innovative surveillance and data analytics approaches during deployments, where appropriate | At least 50% of deployments where innovative and sustainable tools for surveillance and data analytics are introduced and/or strengthened by UK-PHRST during deployments.  *(Source: End-of-mission reports)* |
| 1. *Minimum target of UK-PHRST deployments in response to appropriate requests for support with outbreaks and/or public health emergencies* | | | | |
| Deployment of UK-PHRST CDT, reservists and FETP fellows | March 2020 | UK-PHRST Director | UK-PHRST deployments.  End of mission reports | At least 5 UK-PHRST deployments, in line with deployments of 2018-19.  End of mission reports for all deployments circulated to all stakeholders and interested parties within 4 weeks of end of mission.  Note that while the number of outbreaks for which support will be requested is unpredictable, the UK-PHRST has been able to respond to all GOARN requests for assistance in 2018-19, sometimes deploying at multiple times for the same outbreak (as for the ongoing outbreak of Ebola in DRC). In addition, the UK-PHRST has deployed bilaterally to Nigeria (Lassa fever, Feb-March 2019) and to Rwanda (EVD preparedness, Nov-Dec 2018). |
| * 1. *Trained cadre of experts deployable within 48h for outbreak response. Training includes UNDSS basic security, UNDSS advanced security, induction, SAFE, SAFE+, and deployment course* | | | | |
| Fully functional rolling UK-based training programme in place to enable CDT, reservists and FETPs to deploy within 48h | March 2020 | Training Manager | Training programme in place to ensure all CDT, reservists and FETP are able to deploy at 48h notice within 6 months of joining the team. To include UNDSS basic and advanced security, induction, SAFE and SAFE+, and deployment course. | 100% CDT trained ready to deploy at 48h notice within 6 months of start date  4/6 FETP trained ready to deploy at 48h notice within 6 months of start date |
| * 1. *Laboratory capacity supported in response through development of a “suitcase laboratory” for deployment in ODA-eligible countries* | | | | |
| Deployment of flight case laboratory | March 2020 | Senior Microbiologist | Deployment of flight case laboratory to at least one ODA-eligible country | Deploy flight case laboratory to at least one ODA-eligible country for outbreak response and/or an overseas field trial |
| Establish fully operational container laboratory in Sierra Leone | March 2020 | Senior Microbiologist | A fully operational container laboratory capable of performing outbreak diagnostics, research and capacity-building activities | A fully operational container laboratory capable of performing outbreak diagnostics, research and capacity-building activities |
| * 1. *Sharing of lessons learned from deployment within the team to continuously improve performance* | | | | |
| After Action Review workshop to identify lessons learned from deployments and establish a procedure for learning from future deployments. | June 2019 | Deputy Director for Operations | After Action Review workshop held including contributions from internal and external stakeholders involved in UK-PHRST deployments.  Procedure for learning from future deployments established, including allowing for adaptation of on-call response to incidents, accidents or near-miss in response to lessons learned. | After Action Review workshop held with contributions from internal and external stakeholders. Report produced.  Procedure for learning from future deployments established. |
| All deployments have a formal debrief and lessons learnt (After Action Review) and follow-up action taken. | March 2020 | Deputy Director for Operations | After Action Review held for each deployment, and follow-up action taken and documented. | After Action Review held for 100% deployments.  Lessons identified log updated and maintained following each deployment. |
| * 1. *Monitoring framework developed and implemented into operational processes* | | | | |
| Internal monitoring completed | March 2020 | Programme Managers | Quarterly monitoring completed against the implementation plan and reported to the Project Board.  Implementation plan reviewed at 6 months (Sept/Oct 2019). | Monitoring completed and submitted to 100% Project Board meetings.  Implementation plan reviewed at 6 months. |
| * 1. *Value for money assessed through benchmarking salaries and training costs of those deployed (including backfilling of reservists) against hiring external consultants* | | | | |
| Value for money assessment | January 2020 | Programme Managers | Value for money assessment conducted as part of the mid-point external evaluation. | Value for money assessment conducted as part of the mid-point external evaluation.  Value for money assessment shows a net benefit achieved. |

## **Research**

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| **OUTPUT #2: RESEARCH** | | | | |
| **BACKGROUND**  Through its research programme, the UK-PHRST aims to support the development of innovative approaches and evidence generation for outbreak control, and build research capacity and partnerships in LMICs through local and international collaborations. The UK-PHRST is currently collaborating with a broad array of UK, local and international partners, with a research programme focusing on five key thematic areas, namely (i) epidemiology, including modelling and data analytics; (ii) microbiology, including field diagnostics and genomics; (iii) social science; (iv) clinical research, and (v) mental health and well-being.  The UK-PHRST collaborates with a broad array of UK, local and international partners to develop and evaluate (including before, during, and after outbreaks, as appropriate) improved methods and tools for outbreak prevention and response. Evidence generation, along with direct technical support provided by the UK-PHRST, can drive the development of tailored preparedness plans and response mechanisms that can be activated by LMICs as signals are detected. Research may encompass the range of domains relevant for improved surveillance, disease control and preparedness. In addition to the generation of scientific evidence of potential immediate relevance to the field, this work, performed in collaboration with local investigators, generates local research capacity, partnership and mutual learning.  The research programme of the UK-PHRST links to the overall strategic direction of the programme by:   * Using the opportunity of deployment to outbreaks to identify key research questions, in consultation with local and other stakeholders * Conducting research with key institutions in ODA eligible countries and using this opportunity to build capacity * Answering research questions and using the findings to enhance our response to future outbreaks * Developing future research collaborations, within or external to the UK-PHRST, with these institutions, that now have enhanced capacity.   A total of 24 research projects have been sponsored by the UK-PHRST to date, of which seven are ongoing. All research pillars have made significant progress during 2018-19. The Lassa fever research programme bridges clinical, behavioural, microbiological and epidemiological studies in various settings, including Sierra Leone and Nigeria. Laboratory diagnostic tools, particularly MinION sequencing, are being tested in a number of settings, and projects are ongoing to evaluate and strengthen data analytics tools and techniques for outbreak response. We have delivered on social science and mental health projects. We have also established collaborative research projects during outbreaks, such as work on pneumonic plague in Madagascar, and are involved in several externally funded research projects.  Over the coming year we wish to consolidate our research portfolio, which is now close to full capacity, given our budget and human resources. We plan to strengthen the role of the Academic Steering Group to ensure that all projects meet high scientific standards and are in line with our strategic plan. The ASC will continue to advise on the optimal allocation of research funds from NIHR. We will seek to improve links between research and capacity building, through training of staff, and developing research projects likely to lead to long term scientific and training collaborations, with key partners in LMICs. We will look to implement findings from our research work and further evaluate tools during deployments, where possible. | | | | |
| **OBJECTIVE:**  The main objectives for 2019-20 are to:   * further develop and consolidate all five key themes, with a cohesive multi-disciplinary research programme across them by March 2020 * further implementation of research protocols during outbreaks, where feasible * broaden engagement and collaborations in the UK to complement UK-PHRST expertise, and make UK-PHRST a truly UK-wide entity, and * develop and strengthen research collaborations overseas with new partners and/or in countries where there has so far been more limited engagement and where clear needs are identified.   The overall objective of the research programme is to build an evidence-base for optimal prevention and response conducted before, during and after outbreaks, and to ensure appropriate knowledge sharing for maximum benefit. Over the course of the next year we will focus on (i) improving research management and delivery, (ii) ensuring sustainability and legacy of our research projects, including through local capacity building, and (iii) improve dissemination and impact of our research outputs  The Implementation Plan for 2019/20 outlines activities towards these goals in three categories that support the delivery of the agreed objectives as per the UK-PHRST logframe, with the following key specific **output indicators**:  2.1 Research infrastructure established (strategy, protocol development, tools)  2.2 External funding to build on the UK-PHRST platform  2.3 Knowledge sharing through presented and published analyses of evidence on optimal approaches to outbreak detection, prevention and response | | | | |
| **ACTION PLAN** | | | | |
| **Activity** | **Target Date** | **Lead Person** | **Anticipated Product or Result** | **Performance Measures and Source** |
| *2.1 Research infrastructure established (strategy, protocol development, tools)* | | | | |
| Active Academic Steering Group (ASC) | March 2020 | Deputy Director, Research | Regular minuted meetings of the ASC, shared with NIHR, with close involvement of members in developing and conducting research projects in collaboration with members of the core deployable team.  Review membership of ASC and recruit additional scientific members from other institutions as appropriate. | Monthly ASC meetings held  Proportion of proposals involving members of the ASC or the Core Deployable Team.  ASC membership is reviewed quarterly and follow-up action taken.  *(Source: ASC reports and minutes; information from newly developed project progress reports and portfolio reviews)* |
| Operational research projects undertaken in line with strategy | March 2020 | Deputy Director, Research | An international portfolio of operational research projects across the five themes with contributions from all collaborative institutions within UK-PHRST.  Specific ASC meeting for research portfolio review to identify any gaps and priorities, and subsequently issue a call for proposals so that the research portfolio for 2020/21 can be defined before March 2020. | At least 5 operational research projects completed with final reports  At least 7 operational research projects in progress during the year 2019-20  At least 3 new operational research proposals approved  At least 80% of the research budget spent  *(Source: ASC reports and minutes;* *information from newly developed project progress reports and portfolio reviews)* |
| *2.2 External funding to build on the UK-PHRST platform* | | | | |
| Supporting collaborations and leveraging external funding through grant applications | March 2020 | Deputy Director, Research | Externally funded research projects with named UK-PHRST investigator in progress or completed.  New funding applications submitted for research or capacity-building projects from external sources (named UK-PHRST investigator or collaborator included). | At least 4 externally funded research projects in progress or completed.   * Modelling of vaccine interventions for epidemic diseases (NIHR, PI John Edmunds, ends March 2021) * Anthropology of vaccination for outbreaks (NIHR, PI Shelley Lees, Jimmy Whitworth Co-I, ends March 2021) * Electronic data tools for outbreaks (NIHR, PI Chrissy Roberts, Jimmy Whitworth Co-I, ends March 2020) * African Coalition for Research and Clinical Trials in Outbreaks (EDCTP, PI Peter Horby, Jimmy Whitworth lead for LSHTM, ends March 2022)   Any new funding applications submitted for research or capacity-building projects from external sources (named UK-PHRST investigator included).  *(Source: UK-PHRST reports)* |
| *2.3 Knowledge sharing through presented and published analyses of evidence on optimal approaches to outbreak response* | | | | |
| Publication of articles and presentations at meetings. | March 2020 | Deputy Director, Research | Publication or presentation of work done by the UK-PHRST.  A showcase research event organized by UK-PHRST and also at high profile external meetings especially with ODA-rich audience to support stakeholder engagement. | At least 6 articles published, all with submitted manuscript available online (e.g. LSHTM website or other deposition platform)  At least 9 presentations given to audiences including practitioners and policy makers  *Source: UK-PHRST reports, research databases and conference proceedings.* |
| Findings from research projects shared with national stakeholders and authorities and used to inform outbreak investigation and response | March 2020 | Deputy Director, Research | Published manuscripts or conference proceedings with guidance for how findings can enhance outbreak investigation and response. | At least 3 manuscripts or abstracts with findings that can be used to inform outbreak investigation and response.  Proportion of publications with open access.  Deposition of all publications on prepublication websites.  All UK-PHRST publications are linked to from the LSHTM website.  Evidence of research used to inform practice internally/externally or guide national/international recommendations (impact).  *(Source: manuscripts and abstracts; impact case studies)* |

## **Capacity Building**

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| **OUTPUT #3: CAPACITY BUILDING** | | | | |
| **BACKGROUND:**  The UK-PHRST seeks to build capacity for outbreak prevention and response overseas, complementing other UK investments, such as the PHE International Health Regulations (IHR) programme, DFID’s Tackling Deadly Diseases in Africa Programme (TDDAP), and LSHTM’s RECAP project, where there is significant potential for synergy. UK-PHRST’s capacity building programme in LMICs is mainly focused on (i) supporting the development of a new Masters in Public Health Programme at COMAHS in Sierra Leone, (ii) engaging with key international stakeholders in Africa, including Africa CDC in undertaking, developing, and delivering teaching and training to professionals in the region, and (iii) providing ad hoc support in teaching and training activities to key partners in ODA-eligible countries during outbreaks or research activities, as well as by developing laboratory infrastructure in Sierra Leone.  In the UK, the UK-PHRST has developed a training programme for all new staff members, FETP fellows and reservists, including a one-week residential field deployment course, to provide the necessary background and training ahead of any deployment. The first field deployment course took place in November 2018.  Plans for the coming year include setting up a multidisciplinary competency framework that will underpin the development of training packages, feeding into existing and new collaborations, including or likely to include Africa CDC, WHO AFRO and national Ministries of Health, among others. | | | | |
| **OBJECTIVE:**  UK-PHRST objectives for capacity building in 2019-20 include:   * develop a competency framework for outbreak response in ODA-eligible countries, with a training package addressing each competency, for relevant professionals * ensure sustainability of the MPH programme at COMHAS by steadily transferring the teaching skills to national staff * build on existing relationships with Africa CDC and WHO AFRO and other key stakeholders to develop and strengthen the implementation of outbreak tools and techniques (e.g., lab, data analytics).   Specific **output** indicators as specified in the logframe are as follows:   * 1. Change in surveillance capacity in hub sites in ODA-eligible countries   2. Change in trained personnel for outbreak prevention, detection and response in ODA-eligible countries   3. Change in capacity through shared knowledge with key stakeholders in-country   4. Development of a competency framework for training staff in LMICs | | | | |
| **ACTION PLAN** | | | | |
| **Activity** | **Target Date** | **Lead Person** | **Anticipated Product or Result** | **Performance Measures and Source** |
| * 1. *Change in surveillance capacity in hub sites in ODA-eligible countries*   2. *Change in trained personnel for outbreak prevention, detection and response in ODA-eligible countries* | | | | |
| Training continued and expanded at selected institutions in west African countries to meet learning outcomes around outbreak prevention, detection and response | March 2020 | Deputy Director, Research | Teaching and training and workshops conducted in Sierra Leone at COMAHS and University of Sierra Leone  Training and workshops conducted in other west African countries, including Nigeria and The Gambia | Training supported in at least two ODA-eligible countries in west Africa with at least 75% of participants meeting learning outcomes.  *(Source: UK-PHRST reports and participant evaluations)* |
| Training initiated at selected key institutions in east Africa to meet learning outcomes around outbreak prevention, detection and response | March 2020 | Deputy Director, Research | Assessment of needs and opportunities for UK-PHRST contribution to building capacity.  Training and workshops conducted in east African countries (e.g. Uganda, Sudan) | Training supported in at least one ODA-eligible country in east Africa with at least 75% of participants meeting learning objectives.  *(Source: UK-PHRST reports and participant evaluations)* |
| Training supported at Africa CDC | March 2020 | Deputy Director, Research | Assessment of needs and agreement of contribution of UK-PHRST to Africa CDC training programme.  Participation in Africa Technical working group on training and support to build and act on a competency framework | Needs assessment completed and UK-PHRST contribution to Africa CDC training programme agreed.  Training programme supported. |
| Adapt the UK-PHRST Field deployment course and run a pilot in an ODA eligible country | March 2020 | Training Manager | Review existing materials from the UK based course.  Meet with GOARN and other partners to agree how to collaborate with this training.  Organise and deliver pilot event.  Evaluate the course and produce an evaluation report to share with key stakeholders. | Review of UK field deployment course completed and adapted course designed.  Adapted course piloted in an ODA eligible country.  Field deployment training supported in at least one ODA-eligible country with at least 75% of participants meeting learning outcomes.  Field deployment course evaluation report shared with key stakeholders. |
| * 1. *Change in capacity through shared knowledge with key stakeholders in-country and globally* | | | | |
| Network and skills building workshops in ODA-eligible countries  Explore establishing regional capacity and network activities in:   * clinical research * genomic sequencing | March 2020 | Deputy Director, Research | Support sustainable development of the Epidemic Response Anthropology Platform  Conduct network building workshops of Social Scientists to enhance regional capacity  Conduct a series of capacity and network building meetings on data analytics, and joint-fund events with funding from other sources  Assess opportunities and if appropriate develop regional Clinical Research for epidemic disease outbreaks (CREDO) workshops to build capacity  Assess opportunities and if appropriate develop regional sequencing capacity building workshops across multiple African countries | Enhanced support for the Epidemic Response Anthropology Platform  Hold at least 2 workshops for networking and building capacity in relevant disciplines for outbreak response and control in ODA-eligible countries.  Assessment of opportunities for developing regional CREDO and/or sequencing capacity building workshops. |
| Teaching on outbreaks enhanced at LSHTM especially for distance learning | September 2019 | Deputy Director, Research | Development and roll out of Massive Online Open Course (MOOC) on Outbreaks in LMICs  Development of distance learning module on outbreaks in LMICs  Contribute to existing modules at LSHTM to enhance teaching on outbreak detection, prevention and response | Launch of MOOC  MOOC advertised on LSHTM website (number of participants enrolled)  Distance learning module ready and approved for incorporation in MSc course.  *(Source: Course committee minutes showing that new module accepted)*  Face to face teaching conducted at LSHTM to enhance teaching on outbreak detection, prevention and response  *(Source: Student and module organizer feedback)* |
| Develop proposal for training in ODA-eligible countries | March 2020 | Deputy Director, Research / Training Manager | Adapt teaching materials for use in ODA-eligible countries.  Develop proposal for training in ODA-eligible countries | Proposal for training overseas developed and approved by all stakeholders involved |
| * 1. *Development of a competency framework for training staff in LMICs* | | | | |
| Review existing competency frameworks, determine skills gaps and training required for ODA eligible countries | December 2019 | Training Manager | Create a skills and competency framework with key performance indicators for LMIC staff to reach a determined level of competency to deploy with the UK-PHRST or independently | Conduct at least one training workshop in a key ODA country with at least 75% of participants meeting learning outcomes  Training Needs Assessment report written with key findings and next steps  Competency framework reviewed and signed off by key stakeholders (UK-PHRST, GOARN, NCDC, etc.)  Training workshop report and evaluation |

## **Risks to Delivery**

The table below shows risks to delivery of the performance measures outlined in the Implementation Plan and where appropriate, a brief description of the measures to mitigate these risks.

There are additional wider risks to the project as detailed on the UK-PHRST risk register. The below does not duplicate these risks and accepts that they are being managed and mitigated as appropriate elsewhere.

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| **Implementation plan performance measure** | **Description of risk to delivery and impact on the project**  *Describe the nature of the risk and the impact on the project if the risk is not mitigated or managed. Also identify relevant triggers that may cause the risk to be realized.* | Mitigation Actions  *Specify planned mitigation strategies:*   * *Preventative (implement immediately)* * *Contingency (implement if/when risk occurs)* | **Review date and owner for mitigation action(s)** *Specify who is responsible for undertaking each mitigation action and deadline* |
| DEPLOYMENTS/ RESPONSE | | | |
| At least 5 UK-PHRST deployments | The number of outbreaks for which support will be requested is unpredictable. If there are fewer than 5 requests for deployment support, the UK-PHRST will not be able to meet this target.  Triggers include:   * Fewer outbreaks than expected * Greater capacity for outbreak response than expected in LMICs * Lack of awareness of the offer of UK-PHRST support in GOARN and ODA-eligible countries * In-country/ UK-based politics blocking UK-PHRST deployment to specific countries | Preventive:   * Activity to increase awareness of UK-PHRST offers of support, including close working with GOARN, attendance at epidemic intelligence meetings and UK-PHRST comms strategy. * Work with FCO to apply appropriate pressure where needed. | Owner: UK-PHRST Director  Deadline: On-going activity |
| At least 50% ODA country partner institutions report an increase in capacity for detection, prevention and control of outbreaks, including after UK-PHRST deployments. | The capacity of partner institutions is heavily dependent on other factors. Therefore, there is a risk that external factors will interfere with the achievement of this measure.  Triggers include:   * Support from other donor organisations, in-country developments and any other factors impacting capacity that are not due to UK-PHRST * Mid-point evaluation will not be completed to a satisfactory standard to provide reliable data | Preventative:   * Competitive and robust selection of the external supplier. * Effective management processes established. * Work with the selected supplier for the external evaluation to ensure this measure is as valid as possible. | Owners: Programme Manager (PHE)  Deadline: July 2019 |
| Undertake at least one deployment during which at least one staff member from an ODA partner institution is deployed with UK-PHRST | There is a risk that, once we have identified and formed an agreement with a partner institution, there is no deployment request for the skills specific to a staff member from this institution, or there is a language barrier to deployment.  Triggers include:   * Delays to identifying or forming an agreement with an ODA partner institution * No outbreak request for the skills of a staff member from the ODA partner institution | Preventative:   * Establishing strong working relationships with ODA partner organisations (e.g. NCDC) * Create the capacity for regional training programmes in outbreak response (e.g. proposed training in Sierra Leone using container lab) * Invite delegates to attend/ co-facilitate UK-PHRST internal pre-deployment course * Identification of key skill sets required for deployment * Working with HR and global ops at PHE to explore any contractual considerations in advance. | Owner: UK-PHRST Director |
| Deploy flight case laboratory to at least one ODA-eligible country for outbreak response and/or an overseas field trial | There is a risk that there may not be a request/requirement for deployment of the flight case laboratory. This will prevent the UK-PHRST being able to deploy.  Triggers include:   * No outbreaks requiring flight case laboratory occur * Other organisations with skills and mechanism are deployed * Lack of logistical support mechanism to ensure safe and effective transport of equipment   There is also a risk that the field case laboratory may not be able to be deployed or tested.  Triggers include:   * Logistics of getting the lab into the field not resolved. * Not having adequate equipment or validated diagnostic assays on hand. * Delays in obtaining consumables required for deployment. | Preventative:   * Raise the profile of UK-PHRST Microbiology in ODA countries via training workshops, research projects, capacity-building programmes and attendance at regional meetings/conferences. * Procurement of equipment that allows for a flexible and dynamic response that can be tailored to meet the requirements in the field. * Collaborate with partner groups to effectively and robustly evaluate diagnostic kits on UK-PHRST equipment. * Identify and stock key consumables to enable rapid deployment. * UK-PHRST Ops team and logistics to work with microbiology to identify logistics support for a range of deployments with a range of kit |  |
| RESEARCH | | | |
| Monthly ASC meetings held | There is a risk to monthly ASC meetings occurring.  Triggers include:   * Lack of availability of members leading to ASC meetings repeatedly rescheduled * Members do not attend despite prior confirmation of attendance.   Impact:  Lack of availability will stall progress (i.e. delayed decisions will defer output finalisation, extended project timelines and staff resources will be required for longer than anticipated)  There is another risk that the ASC is not run to a high standard.  Triggers include:   * Inadequate procedures, forms, guidance etc. | Preventative:   * Highlight strategic connection - link Project Objective to relevant strategic objectives * Confirm meeting schedule for the next year in advance * Confirm membership * Put in place and review procedures, forms, guidance etc. to ensure that ASC is supported to be run to a high standard   Contingency:   * Review membership and widen representation (include other agencies) | Owner: Deputy Director, Research |
| At least 5 operational research projects completed with final reports | There will be risks to delivery for each research project that, if realised, may delay their completion date beyond March 2020. For example, delays were caused to the project on plague in Madagascar due to not having enough cases presenting.  Triggers include:   * Political issues/ instability in host-countries | Each project will have explicit measures in place to mitigate known risks. | Owner: Deputy Director, Research |
| At least six articles published | The results of the research and/or delay to research project delivery may compromise article publication. |  |  |
| CAPACITY-BUILDING | | | |
| Training supported in at least two ODA-eligible countries in west Africa and at least one ODA-eligible country in east Africa with at least 75% of participants meeting learning objectives.  Needs assessment completed and UK-PHRST contribution to Africa CDC training programme agreed. Training programme supported. | The risk common to these performance measures is the inability to effectively identify need where the UK-PHRST can deliver effective capacity-building with current capacity.  Triggers include:   * Lack of engagement in ODA-eligible countries and with Africa CDC * Lack of capacity to effectively deliver a UK-PHRST capacity building strategy | Preventive:   * Continue to work with key stakeholders in a selected range of ODA eligible countries to understand their demand and current gaps in capacity * Continue to develop a framework for UK-PHRST capacity-building options in ODA eligible countries and maintain strategic oversight of activities | Owner: Deputy Director, Research  Deadline: September 2019 |
| Review of UK field deployment course completed and adapted course designed. Adapted course piloted in an ODA eligible country. Field deployment training supported for at least one ODA-eligible country with at least 75% of participants meeting learning outcomes. | There is a risk that this activity will be delayed and the deadline will not be met.  Triggers include:   * The UK field deployment course is not easily adaptable and will take a significant amount of work to make it fit-for-purpose. * Delays in recruiting a Training Manager will impact on capacity of UK-PHRST to deliver. * Lack of stakeholder buy-in, including GOARN and suitable ODA country for piloting the study. | Preventive:   * Plan for implementing this activity agreed with new Training Manager * Meet with GOARN and other partners and agree how to collaborate on this training | Owner: Training Manager  Deadline: December 2019 |

**Appendix I:** Logframe

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ORGANISATION NAME:** | **Public Health England & London School of Hygiene and Tropical Medicine** | | | | | | | |  |  | |
| **PROJECT NAME:** | **UK Public Health Rapid Support Team** | | | | | | | **Assumptions** | **Notes** |  |
| **IMPACT** |  |  |  |  |  |  |  | 1) The progression of an outbreak can be altered by enhanced response, research, and capacity building. 2) Partner countries are working towards these goals, and are willing to work with UK-PHRST to do so. 3) Partner countries are not already highly functioning and thus there is room to increase level of core capacity. 4) Resources available to increase capacity. | More direct impact indicators, such as morbidity and mortality during an outbreak or the number of outbreaks becoming public health emergencies, are not feasible due to the complex web of causal factors (e.g. geopolitical, environmental, pathogen evolution), many of which are inherently outside of the UK-PHRST control. Consequently, we suggest using higher-level indicators reflecting country capacity. We will illustrate UK-PHRST contribution towards these goals in monitoring and evaluation through case studies. |  |
| Improved outbreak response through enhanced operational effectiveness, evidence-based research, and capacity building at global, regional and country levels, to reduce morbidity and mortality and the likelihood of outbreaks becoming public health emergencies | **Impact indicator 1** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** |  |
| Change in level of implementation of eight core capacities for surveillance and response as defined by IHR in UK-PHRST partner countries | **Planned** | N/A | N/A | Increase by one level implementation in two core capacities in one UK-PHRST ODA-eligible partner country within the period of collaboration with UK-PHRST | Increased by one level implementation in two core capacities in two UK-PHRST ODA-eligible partner countries within the period of collaboration with UK-PHRST | Increased by one level implementation in two core capacities in three UK-PHRST ODA-eligible partner countries within the period of collaboration with UK-PHRST |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Country reports to WHA: http://www.who.int/ihr/Processes\_of\_IHR\_Monitoring\_framework\_and\_Indicators.pdf?ua=1 | | | | |  |
| **OUTCOME** | **Outcome indicator 1** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| UK and partner ODA-eligible countries' response to outbreaks strengthened through improved response, research and capacity building | Change in UK response to outbreaks in speed and quality | **Planned** | UK-PHRST responds to >50% of appropriate requests within 48h of approval with appropriate skill mix | UK-PHRST responds to >50% of appropriate requests within 48h of approval with appropriate skill mix | UK-PHRST responds to >66% of appropriate requests within 48h of approval with appropriate skill mix | UK-PHRST responds to >75% of appropriate requests within 48h of approval with appropriate skill mix | UK-PHRST responds to >90% of appropriate requests within 48h of approval with appropriate skill mix | 1) Workforce can be retained. | Milestones allow for steady creep in numbers of requests, but not for substantial increases as the visibility of UK-PHRST increases. |  |
|  | **Achieved** |  |  |  |  |  |  |
|  |  | **Source:** Annual report, monitoring and evaluation of outbreak responses and evaluation of training through fellow progress reports, training certificates and feedback from partners. | | | | |  |
|  | **Outcome indicator 2** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
|  | ODA eligible countries and key supporting international partners’ response to outbreaks strengthened through more rapid UK deployment, research and capacity building. | **Planned** | N/A | N/A | >50% of ODA country partner institutions (e.g. national public health institutes, ministry of health) reporting increase in capacity for detection, prevention and control of outbreaks (interim evaluation) including after UK-PHRST deployments; >50% of international partners (WHO/GOARN, other UK-PHRSTs) reporting increased capacity through support from UK-PHRST | N/A | >80% of ODA country partner institutions (e.g. national public health institutes, ministry of health) reporting increase in capacity for detection, prevention and control of outbreaks (final evaluation) including after UK-PHRST deployments; >80% of international partners (WHO/GOARN, other UK-PHRSTs) reporting increased capacity through support from UK-PHRST | 1) Reported increased capacity is accurate |  |  |
|  | **Achieved** |  |  |  |  |  |  |
|  |  | **Source:** Monitoring and evaluation surveys |  |  |  |  |  |
|  | **Outcome indicator 3** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
|  | Minimum target of UK-PHRST deployments in response to appropriate requests for support with outbreaks and/or public health emergencies | **Planned** | Target 4 deployments | Minimum 5 deployments | Minimum 5 deployments annually | Minimum 5 deployments annually | Minimum 5 deployments annually | 1) The number of requests for assistance and deployment will at least meet the minimum target. |  |  |
|  | **Achieved** |  |  |  |  |  |  |
|  |  | **Source:** Deployment reports |  |  |  |  |  |
| **Output 1** | **Output indicator 1.1** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| More effective UK response to outbreaks, including established operational capacity and processes to support rapid deployment for optimal field performance and assess value for money | Trained cadre of UK experts (epidemiology, laboratory, social science, clinical management, infection prevention and control, data science, logistics, research) deployable within 48h for outbreak response. Training includes UNDSS basic security, UNDSS advanced security, induction, SAFE, SAFE+, and deployment course. | **Planned** | ≥ 80% of core team in post and ready for deployment; draft reservist development plan; 33% (2/6) FETP fellows trained and available to deploy | ≥ 80% of core team in post and ready for deployment; training needs of reserve cadre identified, logistics of contracts considered; 33% (2/6) FETP fellows trained and available to deploy | ≥ 95% of core team in post and ready for deployment; 8 reservists recruited; 67% (4/6) FETP fellows trained and available to deploy | ≥ 100% of core team in post and ready for deployment; > 15 additional reservists recruited; 67% (4/6) FETPs trained and available to deploy | 100% of core team in post and ready for deployment; full team of reservists; 100% (6/6) FETP fellows trained and available to deploy | 1) That those recruited are retained and/or replaced in a timely manner when needed. 2) There are sufficient applications from persons with the skills and logistical circumstances required to act as reservists (as agreed by themselves and their employer). 3) There are sufficient resources to fulfil training requirements for reservists. 4) There are sufficient FETP trainees with the skills and logistical circumstances to contribute to the UK-PHRST (as agreed by themselves and their FETP line managers) and that sufficient numbers of FETP fellows elect to participate in the UK-PHRST. | Up to 100% of the FETPs could be trained every year. However, the understanding is that at least 2 FETP UK-PHRST Fellows in each annual cohort (cohort size of 6) will be trained for deployment and deploy with the UK-PHRST. |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Annual report, monitoring and evaluation of outbreak responses and evaluation of training through fellow progress reports, training certificates and feedback from partners. | | | | |  |
| **Output indicator 1.2** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Laboratory capacity supported in response through development of a "suitcase laboratory" for deployment in ODA-eligible countries | **Planned** | N/A | Procurement of case lab equipment completed | Field test of case laboratory in UK | Deployment of case laboratory in at least one ODA-eligible country | Deployment of case laboratory in at least two ODA-eligible countries | 1) Successful results from field tests showing that the equipment is fit for purpose. 2) Countries have procedures to allow timely import of the case laboratory for outbreak response. |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Deployment reports |  |  |  |  |  |
| **Output indicator 1.3** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Sharing of lessons learnt from deployment within the team to continuously improve performance | **Planned** | N/A | All deployments with formal debrief and lessons learnt; response rota for incidents on deployment established | All deployments with formal debrief and lessons learnt; procedure for on-call response to incidents, accidents or near-miss developed | All deployments with formal debrief and lessons learnt; procedure for on-call response to incidents, accidents or near-miss adapted/updated to respond to lessons learnt | All deployments with formal debrief and lessons learnt; procedure for on-call response to incidents, accidents or near-miss adapted/updated to respond to lessons learnt | 1) Team members are willing to engage in reflection on deployments to support improved practice |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** After-action reviews and End-of-mission reports | | | | |  |
| **Output indicator 1.4** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Monitoring framework developed and implemented into operational processes | **Planned** | N/A | NA | Monitoring framework developed | Monitoring (internal) completed quarterly | Monitoring (internal) completed quarterly | 1) Team members are willing to engage in reflection on deployments to support improved practice |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Monitoring | | | | |  |
| **Output indicator 1.5** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Value for money assessed through benchmarking salaries and training costs of those deployed (including backfilling of reservists) against hiring external consultants | **Planned** |  | Net benefit | Net benefit | Net benefit | Net benefit | 1) The cost-benefit of longer-term employment and training of UK-PHRST core-deployable team and reservists is favourable compared with short-term employment and training of external consultants. |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Financial report |  |  |  |  |  |
| **Output 2** | **Output indicator 2.1** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| 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. | Research infrastructure established (strategy, protocol development, tools) | **Planned** | N/A | Research strategy established; > 1 research protocol developed/adapted to guide early, mid- and end-of-outbreak investigation; review of existing tools started | Implementation of research strategy; > 2 research protocols developed/adapted to guide early, mid- and end-of-outbreak investigation; review of existing tools completed | Development and undertaking of >1 cross-disciplinary research project in line with strategy; >3 research protocols developed/adapted to guide early, mid and end of outbreak investigation; >1 impact case study of a tool developed/adapted or in use | Development and undertaking >2 cross-disciplinary research projects in line with strategy; >4 research protocols developed/adapted to guide early, mid- and end-of-outbreak investigation; >1 impact case study of a tool developed/adapted, or in use | 1) Stakeholders are willing to engage to develop standard protocols for implementation in outbreaks. 2) Necessary human and financial resources are available for the UK-PHRST and partners. 3) Research is feasible and acceptable to local communities and governments within the context of outbreak response. | Frequent outbreaks that commit UK-PHRST personnel deployment for outbreak response may reduce their availability to conduct research. |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Annual review |  |  |  |  |  |
| **Output indicator 2.2** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| External funding to build on the UK-PHRST platform | **Planned** | N/A | >1 funding applications submitted (to complement UK-PHRST budget) for research or capacity building projects from external sources (named UK-PHRST investigator included). | >2 funding applications submitted (to complement UK-PHRST budget) for research or capacity building projects from external sources (named UK-PHRST investigator included). | >3 funding applications submitted (to complement UK-PHRST budget) for research or capacity building projects from external sources (named UK-PHRST investigator included). | >4 funding applications submitted (to complement UK-PHUK-PHRST budget) for research or capacity building projects from external sources (named UK-PHRST investigator included). | 1) Funding is inherently competitive. Submission of an application is no guarantee of funding. |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Research projects progress reports |  |  |  |  |  |
| **Output indicator 2.3** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Knowledge sharing through presented and published analyses of evidence on optimal approaches to outbreak response | **Planned** | N/A | Research projects commenced; >3 presentations on UK-PHRST or its work at meetings and conferences where audience includes key stakeholders | >3 articles or abstracts submitted for publication or international presentation; >6 presentations on UK-PHRST or its work at meetings and conferences where audience includes key stakeholders | >6 articles or abstracts submitted for publication or international presentation >9 presentations on UK-PHRST or its work at meetings and conferences where audience includes key stakeholders | >15 articles or abstracts submitted for publication or international presentation >12 presentations on UK-PHRST or its work at meetings and conferences where audience includes key stakeholders | 1) Outbreak response duties are not so burdensome to prevent UK-PHRST staff from attending to research duties. 2) Submitted manuscripts will be reviewed and published in a timely manner by journals. | Since UK-PHRST members contribute to outbreak response, research, and capacity building, heavy burdens in one area, which may be unforeseeable and unavoidable (particularly with regard to outbreak response), may impact progress in another. A UK-PHRST manuscript or abstract is defined as either (i) at least one UK-PHRST member as first, second or last author or (ii) includes UK-PHRST authors in related to an outbreak to which UK-PHRST personnel deployed or otherwise made a significant contribution (e.g. data analysis, modelling support). Audience includes key stakeholders such as WHO, GOARN, other Rapid Response Teams, AFRO, Africa CDC, National Public Health Institutes and Ministries of Health and Research in ODA-eligible countries. |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Research projects progress reports, Annual review | | | | |  |
| **Output 3** | **Output indicator 3.1** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Improved capacity for prevention, detection and control of outbreaks in ODA-eligible countries | Change in surveillance capacity in hub sites in ODA-eligible countries | **Planned** | Engagement with key stakeholders in ODA-eligible countries | Engagement with key stakeholders in ODA-eligible countries; potential hub sites visited to support capacity for improved prevention, detection, and control in ODA-eligible countries; West African hub site identified and capacity development plan made; implementation commenced | East African hub site identified and capacity development plan made; implementation commenced | South-east Asia hub site identified and capacity development plan made; implementation commenced | Capacity of three hub sites developing toward independent response capability | 1) Partner institutions and participants willing to work together and implement training delivered by UK-PHRST and that this will support capacity for outbreak prevention (i.e., infrastructure to then implement the learning). |  |  |
| **Achieved** |  |  |  |  |  |  |  |  |
|  | **Source**: Annual report |  |  |  |  |  |  |  |
| **Output indicator 3.2** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Change in trained personnel for outbreak prevention, detection and response in ODA-eligible countries | **Planned** | N/A | Training supported in >1 ODA-eligible country | Training supported in >1 ODA-eligible country with >75% of participants meeting learning outcomes | Training supported in >2 ODA-eligible countries with >75% of participants meeting learning outcomes | Training supported in >3 ODA-eligible countries with >75% of participants meeting learning outcomes | 1) Partner institutions and participants willing to work together and implement training delivered by UK-PHRST and that this will support capacity for outbreak prevention (i.e., infrastructure to then implement the learning). 2) Students/trainees engage in training activities and learning outcomes set are realistic. |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source: Learning Needs Assessment, UK-PHRST documents** | | | | |  |
| **Output indicator 3.3** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Change in capacity through sharing knowledge with key stakeholders in-country | **Planned** | N/A | N/A | Annual UK-PHRST workshop with partners in an ODA-eligible country | Annual UK-PHRST workshop with partners in an ODA-eligible country | Annual UK-PHRST workshop with partners in an ODA-eligible country | 1) Partner institutions and participants willing to work together and develop preparedness plans |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Feedback after workshop | | | | |  |
| **Output indicator 3.4** |  | **Milestone 1 - Year 1** | **Milestone 2 - Year 2** | **Milestone 3 - Year 3** | **Milestone 4 - Year 4** | **Target - Year 5** | **Assumptions** | **Notes** |  |
| Development of a competency framework for training of staff in LMICs. | **Planned** | N/A | Competency framework agreed upon by all collaborative institutions | Competency framework agreed upon by any new partner with whom UK-PHRST engages for capacity development in LMICs | Competency framework agreed upon by any new partner with whom UK-PHRST engages for capacity development in LMICs | Competency framework agreed upon by any new partner with whom UK-PHRST engages for capacity development in LMICs |  |  |  |
| **Achieved** |  |  |  |  |  |  |
|  | **Source:** Competency frameworks published | | | | |  |

**Appendix II:** Guidance provided by the UK Department of Health and Social Care for developing an implementation plan

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| **Template** |

***Implementation Plan***

The following brief description of each section will help to guide your work. (Note: Planning terms are used in many different ways. You may find other definitions of terms such as “objective” or “goal.” The list below is intended to explain how those terms are used in this document).

|  |  |
| --- | --- |
| **Objective:** | Write a broad statement of what you hope to accomplish related to this priority area. |
| **Performance Measures:** | Demonstrate in this section how you will know you are making progress. State specifically what you will measure to determine whether changes have occurred. Select indicators of progress for both the short term (1 year) and long term (3-5 years). Specify the data source you will use for those indicators and the monitoring and evaluation strategy to be implemented. |
| **Outputs:** | Describe the specific measurable end products (outputs) of the project. These should be SMART: specific, measurable, achievable, realistic, and time-framed. |
| **Background:** | Cite the evidence-base for the strategy employed in this project. This may also include the evidence that underpins the Theory of Change. |
| **Activity:** | Outline the steps you will take to achieve each objective. The activities are the “how” portion of the action plan. It is best to arrange activities chronologically by start dates. Place each activity in a separate row and add as many rows as you need to the template. This should inform the logframe. |
| **Timeline:** | State the projected start and end date for each activity. |
| **Owner** | Identify by name the key person who will own the initiation, progress and monitoring of this activity. |
| **Anticipated Result:** | Describe the direct, tangible and measurable results of the activity (ex: number of deployments or research projects) |
| **Progress Notes:** | Track progress of completion of activities. Also note any unexpected outcomes, both positive and negative. |
| **Alignment:** | Show the alignment between the project and wider programme and cross-government Global Health priorities. |