

ORGANISATION NAME:		Public Health England & London School of Hygiene and Tropical Medicine							Assumptions		Notes	
PROJECT NAME:		UK Public Health Rapid Support Team							Assumptions		Notes	
OBJECTIVE	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	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. geographic, 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.	
		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	Increased 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 three 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/processes/4hr-monitoring-framework-and-evaluation/country-reports		Validation of data						
		OUTCOME		UK and partner ODA-eligible countries' responses to outbreaks strengthened through improved response, research and capacity building		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 >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.	
	ODA eligible countries and key supporting international partners' response to outbreaks strengthened through more rapid UK deployment, research and capacity building	Outcome Indicator 1		Milestone 1 - Year 1	Milestone 2 - Year 2	Milestone 3 - Year 3	Milestone 4 - Year 4	Target - Year 5	Assumptions		Notes	
		Change in UK responses 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 >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 follow progress reports, training certificates and feedback from partners		Validation of data						
		Planned		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	ODA eligible countries and key supporting international partners' response to outbreaks strengthened through more rapid UK deployment, research and capacity building		Planned	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 other 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 other UK-PHRST deployments; >80% of international partners (WHO/GOARN, other RSTs) 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.		
	Minimum target of UK-PHRST deployments in response to appropriate requests for support with outbreaks and/or public health emergencies	Achieved		Source: Deployment reports								
		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	
		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 UNDSO basic security, UNDSO advanced security, induction, SAFE, SAFE+, and deployment course.		Planned	> 80% of core team in post and ready for deployment; draft reservist development plan; 33% (24) FETP fellows trained and available to deploy	> 80% of core team in post and ready for deployment; training needs to reserve cadre identified; logistics of contracts considered; 33% (24) FETP fellows trained and available to deploy	> 100% of core team in post and ready for deployment; 2 additional reservists recruited; 67% (48) FETP fellows trained and available to deploy	100% of core team in post and ready for deployment; full team of reservists; 100% (66) 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 follow progress reports, training certificates and feedback from partners		Validation of data						
	Laboratory capacity supported in response through development of a 'boutique laboratory' for deployment in ODA-eligible countries	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 'boutique 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	Sharing of lessons learnt from deployment within the team to continuously improve performance		Planned	N/A	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 developed	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 developed	1) Team members are willing to engage in reflection on deployments to support improved practice		
		Achieved		Source: Attraction 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	Monitoring framework developed	Monitoring framework completed quarterly	Monitoring framework completed quarterly	1) Team members are willing to engage in reflection on deployments to support improved practice			
	Value for money assessed through benchmarking salaries and training costs of those deployed (including baselining of reservists) against hiring external consultants	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 baselining 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 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/adopted to guide early, mid- and end-of-outbreak investigation; review of existing tools started	Implementation of research strategy; >2 research protocols developed/adopted 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/adopted to guide early, mid- and end-of-outbreak investigation; >1 impact case study of a tool developed/adopted, or in use	Development and undertaking >2 cross-disciplinary research project in line with strategy; >4 research protocols developed/adopted to guide early, mid- and end-of-outbreak investigation; >2 impact case study of a tool developed/adopted, 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.		Pre-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-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.		
	Knowledge sharing through presented and published analyses of evidence on optimal approaches to outbreak response	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	>3 articles or abstracts submitted for publication or international presentation; >4 presentations on UK-PHRST or its work at meetings and conferences where audience includes key stakeholders	>8 articles or abstracts submitted for publication or international presentation; >8 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 relation 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, APHO, 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 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 Asian hub site identified and capacity development plan made; implementation commenced	Capacity of three hub sites developing toward independent response capacity	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						