The core deployable team consists of a novel triple mandate to work in low- and middle-income countries (LMICs) to:

- Respond to outbreaks
- Conduct innovative operational research during and between outbreaks to generate evidence on best practices
- Build LMIC and regional capacity for outbreak response

**UK-PHRST MANDATE**

The 2013-16 epidemic of Ebola virus disease underscored the shortcomings of infection prevention and control experts, social scientists, clinical researchers, field logisticians, microbiologists, and epidemiologists and a clinician assisting with surveillance and clinical management to tackle the ongoing plague (Yersinia pestis) outbreak.

**MULTI-DISCIPLINARY DEPLOYABLE TEAM**

The core deployable team consists of:

- Epidemiologists
- Microbiologists
- Clinical researchers
- Social scientists
- Data scientists
- Infection prevention and control experts
- Field logisticians

**OUTBREAK RESPONSE IN 48 HOURS**

Rapid deployment is absolutely key to the successful management of disease outbreaks.

One of the primary bottlenecks in tackling outbreaks is logistical delays in deploying teams to the field. All of our core team have undergone pre-training to qualify them to WHO standards to allow their rapid deployment into the field within 48 notice. This mechanism has been tested and in all 4 deployments in 2017 UK-PHRST members have been on a plane within the 48 hour target time.

To support the core team a reserve cadre is being formed to increase the operational and surge capacity of the UK-PHRST. Through agreement with their current employers, these reserves will be on call for the UK-PHRST while maintaining their fulltime jobs. Reserves complete the same core UK-PHRST training regime to ensure their operational readiness.

**UK-PHRST IN ACTION – SIERRA LEONE**

The UK-PHRST can respond to humanitarian disasters where there is an increased risk of infectious disease outbreaks. The disastrous flooding and landslides in Freetown, Sierra Leone, in August 2017 resulted in over 800 deaths. The UK-PHRST was deployed after a direct request from the Government of Sierra Leone. A UK-PHRST team of epidemiologists, microbiologists and a field logisticians supported extended surveillance and case investigation for water-borne disease.

**UK-PHRST DEPLOYMENTS 2017**

- Ethiopia: Cholera
- Nigeria: Group C meningitis
- Sierra Leone: Water-borne disease
- Madagascar: Pneumonic plague

**UK-PHRST - Epidemiology in action**

Connaught hospital, Freetown

We are placing a mobile container laboratory in Freetown that provides the UK-PHRST with a base to train African microbiologists, conduct relevant laboratory research, and respond to outbreaks in the region. UK-PHRST is also assisting with the delivery of a Masters in Public Health at the College of Medicine and Allied Health Sciences at the University of Sierra Leone in Freetown.

**CAPACITY BUILDING**

Integral to UK-PHRST’s remit is the provision of capacity building to increase the effective outbreak response in LMICs. We are establishing a regional hub for West Africa that will provide a focus for building capacity and research activities.

**OPERATIONAL RESEARCH**

**UK-PHRST RESEARCH PROGRAMME 2016-2017**

- Impact of psychological intervention using trained peers to treat Ebola centre workers with anxiety and depression in Sierra Leone
- Building readiness for real-time pathogen sequencing for surveillance and control of infectious disease outbreaks
- An evaluation of syndromic surveillance and clinical characterization of ecology and evolution of infectious disease syndromes in refugee camps
- Patient data quality improvement in epidemics. An audit of West African Ebola data
- Rapid needs appraisal to inform clinical research priorities in response to (re-) emerging outbreaks
- Effect of acute illness on contact patterns, Malawi
- Study of the aetiology of severe undifferentiated febrile illness outbreaks in Sudan
- How should anthropologists engage with future disease outbreaks?: Perspectives from anthropologists and humanitarians involved in recent outbreaks
- Establishing real-time evaluations of WASH on disease outbreaks in emergency settings

*Email UKPHRST@phe.gov.uk or talk to presenter for project details.