Field Epidemiology Training Programme prospectus
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Field Epidemiology Training Programme prospectus

“The Field Epidemiology Training Programme (FETP) is not just what you learn but what you become”

Rationale for the FETP

Epidemiology is a core science of public health. The review of epidemiology, commissioned by the Health Protection Agency (now Public Health England) in 2008, identified that there was no obvious plan for developing the next generation of national and international epidemiology experts, and little evidence of strength in depth across many epidemiological subject areas. The review highlighted the need to promote greater professional esprit de corps amongst epidemiologists across the Agency, and recommended the development of a Field Epidemiology Training Programme to address these issues.

What is a field epidemiologist?

Field epidemiology can be described as the as “the practice of epidemiology in real time and real place, which in turn involves both science and art, and applies when the problem is unexpected. A timely response may be demanded: public health epidemiologists must travel to and work in the field to solve the problem, and the extent of the investigation is likely to be limited because of the imperative for timely intervention”. Thus field epidemiologists are professionals who apply epidemiological methods to identify and respond to emerging situations in order to support rapid public health actions, and to provide the evidence for future guidance. They work in varied and very complex, often political, situations which require excellent communication and negotiation skills in addition to technical expertise.

What you can expect from the FETP and what will be expected of you?

As an employee of Public Health England, you will be expected to become a valuable member of the team at your training site. Each training site will have a set of service delivery priorities, out of which FETP learning opportunities arise. You will need to support these priorities, work flexibly, and take responsibility for exploiting learning.

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opportunities as they arise. You will need to develop an understanding of the public health context within which field epidemiologists work, not only developing technical skills, but also developing the broader skills required of an effective independent practitioner.

Your 2-year fellowship will enable learning, focusing on your individual training needs, through on-the-job supervision. You will experience significant personal and professional growth and development, but the programme does not offer automatic career progression at the end of the fellowship. By the end of your training you can expect to become an independent field epidemiology professional with the capability to apply your knowledge, skills and experience in the real world.
Training sites

FES South West, Bristol

Why we became an FETP training site

The field epidemiology team in Bristol has a strong commitment to training and developing the field epidemiology workforce and we have previously offered fellows a rich and diverse training experience given the close link with our local health protection team and other local stakeholders. We are rated as an excellent training location by the South West Public Health Training Programme and have been a European Programme for Intervention Epidemiology Training (EPIET) training site since 2004. Our first FETP fellow joined the team in 2013.

We provide fellows with an opportunity to participate in all main activities carried out by the field epidemiology team. Our team is skilled and committed to using our experience to train and support fellows. We have a strong focus on developing the scientific evidence base through involvement in health protection research studies and evaluations. We have a keen interest in developing tools and methodologies for field epidemiology, and are committed to continuous staff development and training. We work closely with the South West PHE Centre, Bristol Public Health Laboratory, South West Lead Public Health Microbiologist, NHS organisations, Local Authorities and the University of Bristol. We can offer a wide and varied range of joint projects.

Description of the site

Our office is located in the centre of Bristol with railway links to London (1 hour 45 minutes) and other major towns. We are co-located with the Field Service Director and Central Team, South West PHE Centre, PHE South of England Region and the South West Local Knowledge and Intelligence Service.

The field epidemiology team in Bristol is responsible for the surveillance of communicable diseases in the South West, as well as providing advice and assistance during incident and outbreak investigation and control. The field epidemiology team in Bristol runs an in hours duty desk rota of consultants, scientists and information staff to coordinate the response to outbreaks and incidents and ad hoc requests for surveillance data. FETP Fellows are encouraged to participate in the duty desk rota.

The field epidemiology team in Bristol comprises 2 consultant epidemiologists, an epidemiology scientist, an information manager and 4 information staff and associated support staff. Public health registrars and academic clinical fellows are also based with
our team. Our consultant epidemiologists undertake lead roles nationally for the Field Epidemiology Service (bloodborne viruses and emergency preparedness, resilience and response). One of our consultant epidemiologists has a strong research background and is an associate editor of a scientific journal. Our team has developing strengths in automation and skills in SQL, R, STATA, MS Visual Basic and GIS mapping.

We provide field epidemiology services for a population of approximately 5.5 million people. The South West has large areas where zoonoses are an important public health problem and cities with areas of deprivation where we have a high incidence of TB and sexually transmitted infections.

The team's main functions are:

Surveillance of communicable disease: data is collected via routine reporting and enhanced epidemiological surveys. Following the analysis of these data, reports are generated and disseminated to those professionals for use in maintaining and providing preventative measures. We manage a range of reporting systems for communicable disease, including laboratory reporting, clinical reporting and statutory notification systems.

Investigation and control of communicable disease: We provide support and advice to public health colleagues, clinicians and others in the control of communicable disease. Our staff work closely with the local health protection team, hospital laboratories, NHS authorities and local authorities during epidemiological investigations.

Epidemiological research: We are part of the NIHR Health Protection Research Unit in Evaluation of Interventions at the University of Bristol and some of their researchers are based in our team. We undertake research projects in association with academic departments or research institutes in particular the University of Bristol. We have specialist interests in bloodborne viruses, hospital acquired infection and respiratory infections.

Teaching and training in communicable disease epidemiology: senior staff lead in courses and seminars for public health staff and others concerned with health protection. A number of specialist registrars in microbiology have been placed on attachment with us to enable them to gain field experience of communicable disease control and health protection issues. We also have co-supervised masters' dissertation students and provide teaching at undergraduate and postgraduate level.
East of England, Cambridge

Why we became an FETP training site

The UK FETP is a world class training programme which we believe we can contribute to by offering a unique training experience and opportunities for a FETP fellow. The East of England has been hosting fellows since 2012 though we have revamped our approach this year to ensure a richer experience for the fellow, with the PHE Centre, Health Protection Team (HPT) and Field Epidemiology Service (FES) equally invested in its success. We offer an integrated FES and HPT placement. We believe that the diversity of opportunity afforded by this placement is exceptional and we are certain we can support the fellow to take opportunities that both meet their training needs and career interests.

Description of the site

East of England has a population of ~6.4 million and covers a large geographical area encompassing the counties of Norfolk, Suffolk, Cambridgeshire, Essex, Hertfordshire and Bedfordshire. The population comprises both urban and rural populations and some of the most deprived and some of the most affluent areas of the country.

The base training site for the fellow is FES East in Cambridge with field training also delivered at health protection units in Harlow and Thetford. The fellow will be line managed by a FES Consultant Epidemiologist who will provide supervision for epidemiological aspects of training and a Lead Consultant in Health Protection will provide supervision to ensure quality of experience and access to opportunity across settings.

The FES team is based at the Institute of Public Health, part of the University of Cambridge and on the Addenbrookes Hospital site. The team has particularly strong links with the University; microbiologists and infection control teams and infection professionals within NHS Trusts. The team has developed particular expertise in investigation of hospital outbreaks. The FES team collectively has a wealth of experience in infectious disease surveillance, and includes national lead scientists in sexual health and TB. The team is actively engaged with a wide range of stakeholders including CCGs and local authorities and works closely with colleagues in the HPT to meet a broad range of stakeholder needs. The FES team also collaborates with international organisations and is currently undertaking a diphtheria surveillance appraisal for the World Health Organisation. The FES Primary Field Supervisor (former FETP fellow) works half time internationally on the IHR strengthening project currently supporting capacity building in surveillance in Nigeria. The team is also engaged in development of environmental epidemiology. The team contributes to teaching and training at the University and is co-located with epidemiological researchers.
The health protection team has close links with local authorities, clinical commissioning groups, NHS England, local and national microbiology, national infection service, CRCE and hospital infection control teams. The HPT contains highly experienced and skilled professionals with ample outbreak experience. The Centre also has strong collaborations on international projects some of which are centred on global health security. The field epidemiology and health protection teams work closely together on a day to day basis and are looking to further integrate activities.

The context and setting is conducive to ‘real field epidemiology’. The fellow will be supported to undertake projects according to their needs and interests and will have access to wealth of potential opportunity from outbreak investigation to international surveillance strengthening, to research and teaching.

CRCE Chilton and PHE Thames Valley

Why we became an FETP training site

The Chilton training site has 2 training locations; PHE South East Thames Valley, Health Protection Team (TVHPT) and the Centre for Radiation, Chemicals and Environmental Hazards (CRCE). Fellows split their programme into 2 distinct phases with opportunities to collaborate with other fellows located at the site. Both teams have a track record of excellence in field epidemiology, research and publications, teaching and training. The site offers fellows an excellent opportunity to benefit from the breadth of experience that working with a local Centre and a national Centre provides. Fellows have an opportunity to adapt their training experience to take advantage of acute response opportunities and to tailor the training programme to an individual’s interests and learning needs. Fellows at this training site have worked on large research projects, played a key role in outbreak investigations, established and evaluated surveillance systems, presented work to national and international conferences and published work in international journals.

Description of the site

The office is located in South Oxfordshire with railway links to London via Didcot Parkway. Chilton has been a training site for the fellows since 2011.

Thames Valley team

The PHE South East is one of 9 PHE centres in England, which were established on 1 April 2013. We are part of the South of England region and support local government and the NHS in our area with their responsibilities for protecting and promoting health. The health protection team of PHE South East is a busy team serving a population of
2.1 million people. Core business of the unit is providing an acute service for responding to cases and incidents of communicable diseases and non-infectious environmental hazards. The team have recognised strengths in surveillance and using epidemiological methods in outbreak and incident investigation and therefore provides an excellent training location for field epidemiologists. The site has a rolling programme of evaluation of surveillance systems, audit and data quality improvement, providing opportunities for fellows to gain experience in these core field epidemiology learning areas.

The unit produces an annual report of surveillance data on health protection issues in the Thames Valley and there will be opportunities to be involved in subsequent publications including evaluation and development of improved methods for reporting local data. The unit has a track record of conduct of high quality and complex epidemiological studies and applied research, again providing fellows with ample opportunity for training. Staff of the unit have affiliations with local universities for teaching and research. The centre team also have expertise in healthcare public health and health improvement, providing opportunities for the fellow to engage in field epidemiology support for the broader public health agenda.

Centre for Radiation, Chemical and Environmental Hazards

PHE’s Centre for Radiation, Chemical and Environmental Hazards (PHE-CRCE) is being developed as a beacon for evidence-based public health advice for protection from hazards in the environment, including radiation, chemicals, poisons and extreme weather events. An essential component of the evidence basis for advice provided by CRCE is provided through the CRCE Epidemiology Department which provides direct quantitative evidence of human health effects of radiation and other environmental hazards.

Key areas of the department’s work include:- conducting epidemiological studies; applying results of epidemiological studies to ensure that risk estimation and health protection guidance and advice to government has a sound scientific evidence base; developing epidemiological methodologies and techniques, especially for dealing with uncertainties in the science base underlying health protection advice; operation and management of long-term follow-up epidemiological databases; providing training for staff in CRCE, the wider PHE and externally - including internationally; providing internal consultancy on study design and statistics.

CRCE epidemiology services are provided as part of the national PHE function to provide epidemiology advice on non-infectious hazards and health in England and the UK. CRCE offers specialist training opportunities in radiation, chemical and environmental incident preparedness and response for specialty registrars (StRs). In addition, preparedness and response to chronic hazards is also part of the remit and offers training opportunities. Population follow-up of both acute and chronic
environmental hazards has been a component of the training offered. CRCE is aware of training needs of a range of professionals (public health registrars, scientists, FETP fellows, StRs in medical specialties such as psychiatry etc) and staff have provided training opportunities across the whole spectrum of professions involved in environmental public health. For a FETP, all the following CRCE departments would be potentially relevant in terms of providing supervision or specific resources (expert views, data, etc):

- CRCE Epidemiology Department (head: Giovanni Leonardi) is involved in the following areas of work: development of tools for public health response to acute events, surveillance and tracking, epidemiology studies (radiation, chemicals, environmental hazards), health impact assessment or analysis, sustainability, climate change and teaching
- CRCE Environmental Hazards and Emergencies Department (head: Naima Bradley)
- CRCE International Environmental Health Protection and Extreme Events Section (head: Virginia Murray)
- CRCE Dosimetry Services Department (including radon programme)
- CRCE Toxicology Department (including air pollution)
- CRCE climate change research group

**PHE Colindale**

**Why we became an FETP training site**

The Public Health England (PHE) National Infections Service (NIS) and the North West London Health Protection Team (NWLHPT) are co-located on the Colindale site. We became an FETP training site because we were already actively committed to public health and epidemiology training, education and research. We see involvement with training as very important in developing the highest quality service now and in the future, stimulating us all to critique our practice, and improve our own knowledge and skills.

Both units are accredited public health training sites. As a combined FETP training site, we offer national and local experience, for example, registrars and epidemiology fellows based at NIS have supported NWLHPT outbreak investigation and response. There are also opportunities to gain some experience of international investigations, and port health.

The opportunity to train with peers from other disciplines is valued highly by our current fellows. We have a number of registrars and fellows from public health and other disciplines including microbiology, infectious disease, general practice, and with fellows from the European training programmes in epidemiology and microbiology (EPIET and EUPHEM).
Description of the site

NIS

NIS is the national centre for the surveillance and control of communicable disease in England, and relates to similar organisations in Scotland, Wales and Northern Ireland. There is close working with laboratory colleagues in specialist and reference microbiology and molecular epidemiology, also located on the Colindale site.

NIS is a Faculty of Public Health ‘national treasure’, with a strong commitment to public health and epidemiology training. There are places for up to 10 specialty registrars, and 2 or 3 epidemiology fellows at any one time.

NIS’s main public health and epidemiology functions are:

- communicable disease surveillance
- information provision, risk assessments, and clinical advice for communicable diseases
- surveillance of immunisation programmes and associated research
- detection, investigation and control of national communicable disease outbreaks, and assisting with more localised outbreaks
- applied epidemiological research
- training and teaching in communicable disease epidemiology
- co-ordinating the investigation and cause of national and uncommon outbreaks
- developing national policy and guidance
- providing expert advice to government on the risks posed by various infectious threats
- responding to international health alerts
- applied statistical approaches to mathematical modelling and economic evaluation

Staffing: NIS has approximately 25 senior medical or scientific epidemiologists with varying backgrounds in public health, clinical/medical microbiology and research/clinical epidemiology. Support staff provide statistical, data-handling and information expertise, and administrative and clerical functions. A bioinformatics, statistics, modelling and economics unit based at Colindale provides statistical services throughout PHE.

North West London Health Protection Team

The North West London Health Protection Unit (NWLHPT) is responsible for the health protection of a population of nearly 2 million in NW London, and has in its geographical area Heathrow Airport and the highest concentration of restaurants and teaching hospitals in the country. NWLHPT has the second highest number of notifications of tuberculosis, typhoid and paratyphoid fevers and it deals with an above average number
of outbreaks and incidents of communicable disease and incidents of non-
communicable environmental hazards.

The HPT currently provides health protection training to specialty registrars in public
health (5 to 6 per year) and to FY2 Senior house officers (8 per year).

The activities of the unit include:

- daily handovers of acute work
- monthly lunchtime seminars
- quarterly half day training workshops
- incident management (eg HCW infected with BBV, application under the Part 2A
  section of the HP 2010 regulations)
- local communicable disease surveillance
- information provision to stakeholders and the public and risk assessments
- investigation and control of outbreaks of communicable disease
- training and teaching in local communicable disease control

Staffing: The HPT has 5 whole time equivalent consultants in communicable disease
control (including the unit director), 1 nurse consultant, 3 health protection practitioners,
2 surveillance scientists, and 5 administrative assistants.

FES East Midlands, Nottingham

Why we became an FETP training site

We recognise the need to build greater capacity for field epidemiology across Public
Health England. We feel that the site in the East Midlands offers special opportunities
related to Academic Health Protection in the areas of collaborative WHO work, research
and undergraduate and postgraduate teaching

Description of the site

The East Midlands Fellow will work across 2 sites, which are currently co-located in
different parts of the same building at City Hospital Nottingham. Besides the standard
service based domains of surveillance and outbreak investigation, Fellows in the East
Midlands will have above average levels of exposure to research and teaching through
the academic unit. Primary supervision of the East Midlands Fellow is undertaken by
Professor Van-Tam based in the academic unit. The academic unit is currently a WHO
Collaborating Centre for pandemic influenza and research and this status has provided
unique access to international WHO work for 2 previous fellows (one based in
Nottingham, the other based in the north-west of England). In addition the fellow will
have wider access to epidemiologists and statisticians within the wider university
division of epidemiology and public health. The academic unit has its major interests in respiratory virus infections and this site would especially suit a fellow who:

1. is interested in respiratory infections
2. is open to engagement with WHO work
3. is academically inclined and able to show some evidence that they have a keen interest in undertaking research and acquiring publications in peer-review journals
4. has ideally had ‘above average' previous exposure to outbreak investigation and is looking to acquire other epidemiological skills
5. because of the extreme busyness of the academic unit and the possibility of sudden demand from WHO, the East Midlands placement will best suit a fellow who:
   • is very highly motivated
   • is self-starting and self-driven
   • prefers to be given space to get on with things, using their own initiative
   • is capable of self-management to a high degree, but understands the value of collaboration
   • is capable of and enjoys working under pressure (especially important for urgent WHO tasks that come in)
   • has very strong senses of teamwork and ‘mission’
   • understands how generating the evidence base is related to service requirements. (In common with all FES staff with research commitments, there will sometimes be a need to prioritise service work.)

FES Yorkshire and Humber Leeds

Why we became an FETP training site

The field epidemiology team (Leeds) is co-located with the Public Health England Centre for Yorkshire and Humber. We have an established commitment to training and creating an active learning environment. The site also provides a range of short and long-term placements for public health specialist registrars, junior doctors and microbiologists. We are enthusiastic about being an FETP training site to develop the range and depth of the training we can offer. We see this as part of an overall programme of quality improvement and capacity development for epidemiology in the UK overall and for our local teams. We welcome the opportunity to engage with wider networks of individuals who share the same interests and passions to generate new questions, new solutions, and contribute to the wider public health goals through applied epidemiology.
Description of the site

The main training site is in the Leeds Office of the field epidemiology service which is co-located with the West Yorkshire health protection team and main Yorkshire and Humber Public Health England Centre base. The field epidemiology team works collaboratively with the health protection teams located in Leeds, Sheffield and York, providing access to a wide range of outbreak investigations, surveillance, teaching and project opportunities. There is also the possibility of projects integrated with other disciplines in the Centre such as health and well-being where a field epidemiological approach or investigational research would be appropriate.

The Leeds office is sited in the centre of Leeds with good transport links to the rest of the Centre geography and major road and rail networks. Yorkshire and Humber has a population of 5.3 million and presents a wide variety of public health challenges. It includes the urban centres of Leeds, Sheffield and Hull but also extensive rural areas with a significant farming community. There are areas of considerable ethnic diversity particularly in parts of West Yorkshire; areas of considerable population turnover and migration and areas of long standing population stability. The area served includes 3 international airports and 2 major seaports and is also host to a number of military bases including the largest garrison in Europe in Catterick. PHE staff work closely with local partners to support and investigate incidents in all of these settings. There are also several prisons ranging from remand centres, mother and baby units, to high security sites, and offender health is a topic of active research and development in this locality.

The key activities within the field epidemiology team include:

- maintaining an overview of case and incident activity to fulfil an effective alert function, recognising patterns, detecting outbreaks and reporting to local and national stakeholders
- provision of surveillance outputs with relevant epidemiological interpretation appropriate to the intended audience to inform commissioning and service design, this is subject to a continuing programme of review and development
- detailed epidemiological analysis of specific surveillance datasets to improve epidemiological understanding and to contribute to the evaluation of health interventions
- investigation of case clusters and outbreaks at Centre and local level, contributing to national outbreak investigations
- supporting colleagues within the Centre and across FES in the design and analysis of research projects and leading on individual projects
- supporting and delivering training and mentored learning opportunities for PHE staff, external staff, medical and nursing students, MPH students, and public health specialist trainees
One of our consultant epidemiologists leads for the field epidemiology service on vaccine preventable diseases, and antenatal infection screening/children’s health which gives rise to opportunities to lead and contribute to national projects in these fields. The epidemiology team is also leading for FES on evaluating and developing the adoption of data visualisation techniques and tools.

**FES London and South East (Skipton House)**

**Why we became an FETP training site**

The field epidemiology team in Skipton House (FES SEaL) is the busiest FE team and has a long tradition of training EPIET fellows, specialist trainees in public health and now FETP fellows from the start of the FETP programme. FES SEaL serves an area comprising of almost a third of the population of England, with both urban and rural parts with extremes of deprivation and affluence, including a highly mobile, multi-ethnic population with many prisons, care homes, hospitals, major UK airports and commercial sea ports. The rich variety of our population and our central location in London makes us a fantastic place to gain experience in all aspects of field epidemiology. Our team is skilled and committed to using our experience to train and support fellows. We have a keen interest in developing tools and methodologies for field epidemiology, and are committed to continuous staff development and training. We can offer a wide range of projects, outbreaks, joint working with academic institutions, Colindale and CRCE. We work closely with our Public Health England Centres and Health Protection teams (which were included as partners in our training site).

We provide fellows with an opportunity to participate in all main activities carried out by the FE team. Based on the fellow’s previous experience and interest, appropriate assignments can be arranged, including joint projects with other teams or placements with a local Health Protection team where the trainee can gain experience in first line response to local health protection problems.

**Description of the site**

The field epidemiology team in Skipton House provides advice and support in the control of communicable diseases and environmental hazards to the NHS and other organizations in London and the South East of England. This covers a population of around 17 million people and consists of 2 Public Health England Centres and 7 health protection teams.

Our office is located in Elephant and Castle in central London with railway links to those PHECs we support.. We are co-located with the South London Health Protection team and CRCE and a number of national PHE teams.
FES SEaL is responsible for the routine and enhanced surveillance of communicable diseases as well as providing advice and assistance to health protection teams in incident and outbreak investigation and control.

We are a busy and supportive team, including 4 consultant epidemiologists; a senior epidemiologist, senior scientists who are skilled in supporting work on Stata, R and ArcGIS.

The team's main functions are:

Surveillance of communicable disease: regional data is collected via routine reporting and special epidemiological surveys. These data are analysed and interpreted to monitor trends and identify risk groups, and reports disseminated for use by colleagues in infectious disease control. We manage a range of regional reporting systems for communicable disease, including laboratory reporting, clinical reporting including the London TB Register, and statutory notification systems.

Investigation and control of communicable disease: we provide support and advice to public health physicians and others in the control of communicable disease. We work closely with locally based public health, NHS, laboratory and local authority staff during epidemiological investigations. We supported almost 40 incidents and outbreaks in 2015 to 2016.

Epidemiological research: we have excellent links with academic departments or research institutes in particular LSHTM and UCL and links to the Sexual Health HPRU, and have a strong publication record. Members of the team have several specialist interests for example we include the FES lead for TB and sexual heath and invasive Group A streptococcus and there is a wide range of projects to take on. As we cover such a large population, we have many opportunities to analyse substantial datasets of our surveillance data.

Teaching and training in communicable disease epidemiology: fellows have numerous opportunities to teach. We have weekly team training sessions, monthly scientific presentations that we host for all South East and London HPTs, and also routinely hold outbreak investigation case studies and analytical teaching sessions. In addition we teach on academic courses.

**FES North East, Newcastle**

**Why we became an FETP training site**

Before the FETP commenced we recognised that the lack of a suitable epidemiology training scheme was a significant problem. It was hard to find people with suitable skills
to work in epidemiology at any level within field epidemiology teams and to allow for succession planning. We put a lot of effort into recruiting and providing in-house training to epidemiological scientists in order to help meet this need, and have been delighted with the success of several in progressing their careers in epidemiology.

When the FETP was proposed we were very keen to be involved. The greater infrastructure behind the FETP provides for a range and depth of training beyond what could be provided locally, as well as more opportunities to interact and learn from peers and having the advantage of being a recognised training programme which those seeking these skills will value.

Description of the site

The north east site is based in the field epidemiology service team (FES NE) for the north east of England (FES NE), based in Newcastle-upon-Tyne. The team is co-located with the North East Public Health England Centre Health Protection Team (HPT), directly opposite St. James Park in the centre of Newcastle, 5 minutes' walk from Newcastle Central Station. We serve the same area, ranging from Berwick-upon-Tweed on the border with Scotland to Darlington and Teesdale on the border with North Yorkshire, with a population of 2.6 million, and together provide a closely integrated health protection and epidemiology service.

Similarly to other FES teams the main functions of the FES NE are:

- investigation and control of outbreaks of communicable disease
- surveillance of communicable disease
- epidemiological studies and research
- teaching and training in communicable disease epidemiology

A benefit of the close integration with the health protection team is that the FES is routinely involved in north east outbreak control teams (OCT) leading on provision of both descriptive epidemiology and analytic investigation. This arrangement provides opportunities to gain experience in epidemiological outbreak investigation. In addition fellows will have the opportunity to observe and gain experience of front line health protection work in both outbreak situations and routine practice.

We provide a unique surveillance and information service meeting the needs of both HPT and FES, using an in-house surveillance system in addition to national systems, and fellows with suitable interests will have the opportunity to work with and contribute to the development of exceedance, coincidence and cluster detection systems, and to develop skills in the use of STATA, R, ArcGIS, iAnalyst and SQL as well as standard Office and freeware programmes.
We take opportunities for involvement in epidemiological studies and research, and have a good record of publishing in peer reviewed journals and making conference presentations. There are opportunities to become involved in teaching and training, in particular through links with Newcastle University, within PHE and with NHS and local authority partners.

**FES North West, Liverpool**

**Why we became an FETP training site**

We applied to become a training site because we are keen to help develop field epidemiological capacity within PHE. We enjoy training and FETP fellows allow us to work on interesting projects that we might not have time to do ourselves.

We benefit from working with FETP fellows by learning from them and keeping up to date. FETP fellows provide training to our staff and that of our local centres. We also appreciate the opportunities to get involved in the wider training activities of FETP and EPIET.

As a unit we can provide the full range of experience required for a career in field epidemiology: outbreak investigation, surveillance work, data management, data analysis, statistics, research methods, and scientific writing and presenting. We aim to provide a supportive environment in which trainees can develop. We have a good team including consultant epidemiologists, analysts and information management staff.

**Description of the site**

The North West of England has a population of 8.2 million, and has 3 HPTs (Cheshire & Merseyside, Cumbria & Lancashire and Greater Manchester) with approximately 17 CscDC and 3 nurse consultants/senior health protection practitioners. The area includes both densely populated urban areas and sparsely populated rural areas. It is a great place to live, with easy access to the Lake District, Peak District and North Wales. Manchester, Liverpool and other towns and cities offer the full range of cultural activities.

The north west has lower life expectancy than many other parts of the country and also major health inequalities. Parts of the north west have some of the highest rates of TB and STI (including hepatitis) in the country. In recent years we have had large outbreaks of Salmonella and measles. There is an on-going major issue with carbapenem-resistant Enterobacteriaceae at a number of Manchester hospitals. We also have a huge legacy of contaminated land resulting from the chemical industry in parts of Cheshire and Merseyside, and of course 2 nuclear reprocessing facilities within our area.
FES Liverpool is based in central Liverpool on the waterfront, in one of Liverpool’s iconic landmarks: the Cunard building. Similar to other FES units, the main functions of FES Liverpool are:

- surveillance of communicable disease
- investigation and control of outbreaks of communicable disease
- epidemiological studies and research
- teaching and training in communicable disease epidemiology
- communications and media support work both in response to acute incidents and in proactive engagement with local, regional and national media, working in collaboration with the north west press officers

We work hard in outbreaks and have shown that we can take a lead role in outbreaks extending outside our area. We are proactive, alert and attentive to detail in matters of surveillance. We are very research active – we have a number of on-going funded studies and would like more. We are ready to try our hand at anything.

We have an enthusiastic and versatile team and we like to explore new tools, techniques and technologies. We have more ideas than time to develop them. We have excellent working relationships built on mutual respect and we provide opportunities for all our staff to develop professionally and maintain interest in their work – our admin staff (all 2 of them) can use EpiData Entry, for example. We collaborate readily and have excellent relationships with colleagues in the local public health system, across FES, in specialist centres and in academia. We have a strong ethic of service to our stakeholders.

FETP fellows who join us will have opportunities to lead a range of interesting research and surveillance projects. We encourage strong analytical skills and IT literacy – fellows can learn one or more of STATA, R, SQL, Python, EpiData or anything else which does the job.

**Northern Ireland, Belfast**

**Why we became an FETP training site**

The Health Protection Service in Northern Ireland (HPSNI) was formed in 2009, as part of the new Public Health Agency (PHA). This brought together the epidemiology and surveillance functions of the previous Northern Ireland Communicable Disease Surveillance Centre with the local communicable disease surveillance, investigation and control functions.

Northern Ireland has been an EPIET training site, hosting 6 fellows since 2000, and fully recognises how important it is to maintain and develop field epidemiological capacity.
within the UK and beyond. Hence we are delighted to have joined the UK FETP programme in 2014. We feel that the integrated nature of our service offers particular opportunities for training in field epidemiology, with opportunities to become involved in the first response to both routine and outbreak events.

Description of the site

The fellow will be based in the main PHA site at Linenhall Street, Belfast. The main University Medical Library, the Northern Ireland Public Health Laboratory and the Regional Virology Laboratory are sited 2 kilometres away at the Royal Victoria Hospital. The HPSNI has close working relationships with the Department of Health and Social Services, Health and Social Care Board, the hospitals and their laboratories, and with the Department of Agriculture (Scientific and Veterinary Services). There are good links with the Queen's University of Belfast Centre for Public Health through provision of teaching to the MSc Public Health programme, and participation in joint research projects.

Key activities at our site include:

- surveillance of communicable disease at the local and regional levels
- provision of support to primary and secondary healthcare professionals around health protection issues
- field investigation of communicable disease outbreaks in the community and healthcare setting
- multi professional training in communicable disease epidemiology and audit of communicable disease control
- provision of support to the Department of Health and Social Services and Public Safety on communicable disease policy and to the Health and Social Care Board on the commissioning of health services around health protection issues
- implementation and monitoring of vaccination programmes
FES West Midlands, Birmingham

Why we became an FETP training site

The field epidemiology team in West Midlands has been a training site for public health and other specialist trainees (eg clinical scientists) for years and was a pioneer in developing specialist training in health protection. The team is committed to supporting all activities to improve the capacity and capability for public health and Field Epidemiology through an enabling training framework supported by our local health protection teams and other local stakeholders. We had our first FETP fellow join the team in September 2010.

We provide fellows with an opportunity to participate in all main activities carried out by the field epidemiology team and other relevant teams/groups that we collaborate with such as the real-time syndromic surveillance team (ReSST), a unique national resource, who are co-located in the same building. As part of the fellows training, where appropriate, assignments can be arranged which could include placements with a local health protection team where the trainee can gain experience with the first line of response to local health protection problems and a collaborative project with the chemical and environmental hazards team based in the same offices.

In addition, due to our close links with University of Birmingham, University of Staffordshire and Warwick University, the fellow will also have the opportunity to contribute to post-graduate teaching and research activities at these institutions and also have access to all relevant training opportunities provided by the West Midlands Public Health training scheme.

Description of the site

The field epidemiology team in West Midlands provides advice and support in the control of communicable diseases and environmental hazards to the NHS, local authorities and other organizations in the West Midlands region of England. This covers a population of around 5.6 million people, the largest English geographic region and includes Birmingham, which is the second most populated British city. The West Midlands is geographically and ethnically diverse, a situation that presents several health protection challenges including a high incidence of tuberculosis, healthcare associated infections and sexually transmitted infections.

Our office is strategically located in centre of Birmingham with railway links to London (1 hour 20 minutes) and other major towns. As we are co-located with the West Midlands PHE Centre, we have a diverse group of PHE professionals and teams that our fellows can engage with, these include Centre for Radiation, Chemicals and...
Environmental Hazards (CRCE); Emergency Planning, Knowledge and Intelligence, Local Health Protection; Health Improvement teams among others.

Similar to other Field Epidemiology Teams, the West Midlands is responsible for the routine and enhanced surveillance of communicable diseases in our region, as well as providing advice and assistance to the units in incident and outbreak investigation and control.

The field epidemiology team in West Midlands is accountable to the director of field epidemiology and comprises 2 consultant epidemiologist; 2 epidemiology scientists, 1 information manager and a project manager and 2 senior information officers and an information scientist; 2 information officers and a unit administrator/PA. We also share an Information Officer with the ReSST team.

The FE team's main functions are:

Intelligence and surveillance activities for infectious diseases and health protection related issues required for health protection, health improvement and healthcare public health work: sub-national data is collected via routine reporting and special epidemiological surveys with appropriate analysis undertaken. We produce a range of surveillance reports to meet the needs of a diverse group of stakeholders and organisations. We manage a range of regional reporting systems for communicable disease, including laboratory reporting, clinical reporting and statutory notification systems and environmental monitoring.

Lead and/or support field investigations and response to outbreaks, incidents and other situations arising from actual or potential exposure to infectious agents or environmental hazards that require prompt public health action: we provide support and advice to public health physicians, hospital clinicians and others in the prevention and control of outbreaks of communicable diseases in a variety of settings.

We lead/contribute to/support staff in the PHE centre and local government to apply epidemiological methods to assess and develop the evidence-base to inform public health actions including the evaluation of public health interventions. Due to our collaborations with Warwick University, University of Staffordshire and ReSST, we undertake a range of research projects that includes systematic reviews, descriptive and analytical studies such as case-control studies or cohort studies. We have a specialist interest in evaluating the evidence base for health protection and work closely with Warwick Evidence (www2.warwick.ac.uk/fac/med/about/centres/warwickevidence) at the University of Warwick; Hospital acquired infections & Antimicrobial Resistance and, with ReSST, developing and accessing syndromic surveillance systems as part of the EPTT HPRU (www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses) and another collaboration with University of Liverpool.
Teaching and training in communicable disease epidemiology: Senior staff lead in courses and seminars for public health personnel and others concerned with health protection in a variety of settings that include Universities. Our team coordinate and participate in regular training/educational opportunities within PHE and more widely across the region. These training sessions are primarily focussed on developing knowledge and expertise in field epidemiology, communicable disease control and health protection issues.