UK Field Epidemiology Training Programme Prospectus 2020
The UK Field Epidemiology Training Programme

The Field Epidemiology Training Programme (FETP) is a full-time two-year fellowship programme, which provides training and practical experience in intervention epidemiology and aims to develop specialist field epidemiology skills.

Training is provided mainly through on-the-job service provision and learning activities, but at least ten percent of time will be dedicated to formally taught training courses. The programme currently covers England, Wales and Northern Ireland.

Training sites

There are 12 training sites. The majority are within Field Service (FS) teams. These teams are part of a nationally coordinated and managed service that is geographically dispersed with specialist field epidemiology teams spread across England. In addition, there are sites in National Centres (NC) and Health Protections Teams (HPT), who provide specialist public health advice and operational support to NHS/local authorities etc., and in the Centre for Radiation, Chemicals and Environmental Hazards (CRCE).
UK FETP goals

1. To strengthen capacity and provision of public health epidemiology
2. To develop a network of skilled field epidemiologists with a shared sense of purpose, working to common standards across the UK and Europe
3. To raise the profile of field epidemiology and embed this into everyday health protection practice
4. To support PHE’s global public health workplan through provision of fellows and staff to support international response and capacity building

Graduation Criteria

These are the minimum criteria to pass the programme but the fellowship has flexibility and time to support multiple projects in different areas, based on the needs of individual fellows.

1. Outbreak investigations
   Conduct an analytical outbreak investigation

2. Surveillance
   Develop, implement or evaluate a surveillance system

3. Research
   Complete an applied epidemiology research project

4. Training
   Conduct a learning needs assessment, develop, deliver and evaluate a teaching or training session

5. Communication
   Submit a manuscript to a peer-reviewed journal and deliver an oral presentation at a national or international conference
Recruitment

MARCH:
Recruitment opens

MAY:
Interviews

SEPTEMBER:
Start of fellowship

Where have our previous fellows come from?

- PHE field service scientists
- public health registrars
- other PHE / outside organisations

For example
- scientists from national teams
- nurses
- vets
- PhD graduates

What do you need to be able to apply?

- a Master’s degree in Epidemiology or Public Health (or other scientific discipline)
- demonstration of a keen interest in field epidemiology
- at least two years of Public Health experience
Why do FETP?

The two-year fellowship will enable learning, focussing 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.

What you can gain

- knowledge, experience and confidence
- networking skills and links to professionals with a common interest
- time out for structured learning / opportunity to develop key skills
- new ways of looking at things
- exposure to variety of different project opportunities

Where have the fellows ended up?

Includes all fellows that have completed the programme, from 2011 onwards. All are current job roles as of February 2020.

From 2011 to the end of 2019:

- 38 graduated fellows
- 13 fellows in the programme

Fellows achievements

- 101 Peer reviewed papers published
- 121 Oral presentations at conferences
- 121 Poster presentations at conferences
- 45 International assignments
Graduating Cohort (C17) Highlights

Outbreaks
- A cluster of nosocomial Lassa fever cases in a tertiary health facility in Nigeria: Description and lessons learned, 2018.
- Retrospective cohort study demonstrating extensive pertussis transmission during a boarding school outbreak, England, June 2018
- Pseudomonas aeruginosa cluster linked to ear piercing at a tattoo parlour in Halifax, November 2017
- Increase in Legionnaires’ disease cases associated with Palma Nova, Mallorca, Spain, 2017
- Epidemiological investigation into an outbreak of gastroenteritis in a Golf Club, Kent, March 2019

Surveillance
- Evaluation of Nigeria CDC event-based surveillance system for detection of outbreaks of infectious disease
- Investigation into the completeness of the denominator for the Prenatal Pertussis Vaccination Uptake Indicator, September 2018
- Evaluation of Salmonella surveillance questionnaire response combined with SMS messaging in Greater Manchester, United Kingdom

Research
- 30-day all-cause mortality in monomicrobial and polymicrobial bacteraemias
- Prevalence and risk factors for protist enteroparasites Cryptosporidium spp., Giardia duodenalis and Blastocystis sp. in Mozambique
- Epidemiology, risk factors and burden of hepatitis A in England, 2007-2017
- Investigating the burden of Varicella zoster infection in England
- Economic analysis of gastrointestinal outbreaks and Public Health England outbreak investigations

Teaching
- Surveillance and data tools for outbreak response and monitoring in emergency settings
- Healthcare Epidemiology: Carbapenemase-producing Enterobacteriales in a UK hospital
- Evaluating learners’ needs and feedback from the first Environmental Epidemiology module for Ghana Field Epidemiology and Laboratory Training Programme delivered by Public Health England
- Management of Outbreak Investigations

Communication
- Clostridium perfringens in the pub with the leeks in cheese sauce: an outbreak investigation in the West Midlands, England
- Investigation of methods and barriers of call-recall for vaccinations in London
- Hepatitis C surveillance in Yorkshire, England

International Missions
- Lassa fever outbreak in Nigeria
- EVD Preparedness in Rwanda
Key Health Protection challenges

- blood borne viruses and sexually transmitted infections, particularly syphilis
- Legionella
- Tuberculosis (planning for elimination)

Recent fellow's projects

- Long-term health effects of Shiga-toxin producing E.Coli (STEC) O157 infection: a population-based matched cohort study, Wales
- Automation of Hepatitis C testing report in Wales
- BBV and STIs testing in Wales

Additional information

CDSC are co-located with the Cardiff and Vale Health Protection Team as well as the environmental epidemiology and health and justice teams. Wales has been an EPIET training site since 1996, hosting 8 EU-track and 2 MS-track fellows.

CDSC is close to University Hospital of Wales, where the Cardiff Public Health Microbiology Laboratory is situated, as well as where the UK Anaerobe Reference Unit, the Specialist Antimicrobial Chemotherapy Unit, the Mycology Regional Reference Unit, the Wales Centre for Mycobacteria and the Wales Specialist Virology Centre. We are co-located in with the Pathogen Genomics Unit in Capital Quarter.

CDSC have good links to Welsh government as well as to laboratory and communications staff who offer placements to trainees. There is also a friendly group of registrars and regular training and development sessions such as hot case debriefs.

There are good opportunities for fellows to work on large research projects, such as the “Be on the TEAM” meningitis B study.
**Key Health Protection challenges**

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.

Recent challenges:

- there has been recent ongoing Invasive Group A Streptococcus outbreaks in different local authorities linked to care homes and district nursing
- measles outbreaks continue to occur in the area, with a recent outbreak occurring in adults with learning difficulties
- we see Mumps outbreaks often occurring, particularly in the University student population
- in order to counter the increase in Syphilis diagnoses in the East of England, a recent campaign was launched to promote safe sex messages and increase knowledge
- TB outbreaks across schools, a prison and factory have led to screening in these particular settings

**Recent fellow’s projects**

- Lassa Fever in Nigeria – time to presentation of cases to healthcare facility – a project following a deployment to Nigeria
- Outbreak of Campylobacter following a wedding event, Suffolk
- Measles outbreak in adults with learning difficulties
- Epidemiology/Health Protection Teaching module to Cambridge University 4th Year Medical Student – a hospital case study

**Additional information**

Currently the FS team are based in the Institute of Public Health (Cambridge University), on the Addenbrookes Hospital Site. The Health Protection Team and FS team are not co-located with one another. The Health Protection team are based in offices located in Harlow and Thetford.
East Midlands Field Service Team

Key topic areas

Field Service topic leads: Healthcare Associated Infections (HCAI) and Antimicrobial Resistance (AMR), Tuberculosis.

Research interest: Pneumocystis jirovecii, C. difficile, AMR, HCAI

Location of office: Seaton House, City Link, Nottingham

Primary Field Supervisor: Richard Puleston. Richard.Puleston@phe.gov.uk

Academic links: Local: University of Nottingham

Key Health Protection challenges

- high rates of Tuberculosis in Leicester
- Legionnaires clusters in Nottingham
- STI rates in Nottingham
- migrant health in Lincolnshire
- HCAI outbreaks
- high levels of deprivation and homelessness in Nottingham

Recent fellow’s projects

- National outbreak of Pseudomonas aeruginosa associated with an aftercare solution following piercings, July to September 2016, England
- Is seasonal influenza vaccine effectiveness reduced in people receiving repeat vaccinations? A retrospective cohort study using the Clinical Practice Research Database
- Implementation of WGS tuberculosis cluster surveillance; rapid identification and robust public health management in the East Midlands, 2017-2018
- Prospective cohort study of Pneumocystis jirovecii colonisation in renal transplant recipients
- Phylogenetic analysis of Salmonella Typhimurium DT104 human and animal isolates in the UK
- Evaluation of the national surveillance system in Myanmar

Additional information

The Field Service and Health Protection Team are co-located in the same shared office, which enables strong working relationships and collaboration. The East Midlands and West Midlands Field Service teams recently became one team, which offers the opportunity to work with colleagues in the syndromic surveillance team who are based in Birmingham.
**Key Health Protection challenges**

- HCAI and AMR
- large agricultural sector and rural population
- challenges with healthcare staffing levels, currently unclear impact on health protection
- recent declines in vaccine coverage

**Recent fellow’s projects**

- Changing epidemiology of Pneumocystis pneumonia (PCP), Northern Ireland, UK and implications for prevention, 1 July 2011 – 31 July 2012
- Enhanced surveillance of recently acquired new HIV diagnoses in Northern Ireland
- Antibiotic prescribing in older people and trends on movement into institutional care: a record linkage study
- Evaluation of CPE screening, detection, management and surveillance, 2012-2018
- Risk factors for community- and healthcare-associated E coli BSI in NI
- Monitoring and evaluation of NI HIV PrEP pilot
- Prison-level risk factors for increased numbers of GAS cases in prisons in England and Wales

**Additional information**

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).
Key Health Protection challenges

- responding to national incidents
- national surveillance – developing new systems and improving existing systems
- authoring and/or Updating national guidance and policy

Recent fellow’s projects

Surveillance:
- Lyme disease Enhanced Surveillance Protocol - A pilot study to strengthen the surveillance of laboratory confirmed cases of Lyme disease
- Pertussis infection in preschool age children in England: Data linkage / Capture-recapture
- Cover of Vaccination Evaluated Rapidly (COVER) - Validation of GP level data to improve vaccination coverage surveillance in England

Research:
- Risk factors associated with enterovirus D68 (EV-D68) infection: a case-control study

Outbreak:
- Investigation of a cluster of Salmonella Mikawasima in the UK, 2019: Case-case study
- Acute Flaccid Paralysis (AFP) in the UK 2018: descriptive epidemiology

Teaching:
- Principles of surveillance – PHE/NIS Introduction course
- Skills mapping and learning needs assessment for the Field Service 2019

Additional information

- co-located with North West London Health Protection Team
- opportunities to be involved in national incidents e.g. Monkeypox 2019 and COVID-19
- additional duties include contributing to the daytime duty on-call rota – answering the on-call phone, responding to queries from the HPTs, conducting rabies risk assessments and immunoglobin enquiries

Location of office: Colindale, London

Primary Field Supervisor: Michael Edelstein. Michael.edelstein@phe.gov.uk

Academic links: Departments are academically linked to a range of universities through the Health Protection Research Units. London School of Hygiene and Tropical Medicine (Immunisation HPRU), Bristol University (Evaluation of Interventions), University College London (Blood Borne and sexually transmitted infection), Imperial College (Modelling and Health economics, HCAI/AMR), Liverpool University (Emerging and zoonotic infections, Gastro intestinal infections), Oxford University (HCAI/AMR)
Key Health Protection challenges

- some of the highest rates of healthcare associated infections, sexually transmitted infections and mumps nationally
- large number of prisons
- large differences in population density and high deprivation

Recent fellow’s projects

- Is the use of dating apps associated with developing sexually-transmitted infection(s) in young heterosexual adults in the North East of England?
- Understanding the epidemiology of E. coli bloodstream infections in the North of England
- Investigation into a recurring cluster of MRSA colonisations in a special care baby unit, April 2016 – November 2019
- Evaluation of the EpiNorth3 surveillance system in North East England, January 2013 – December 2017

Additional information

Co-located and close working relationship with the Health Protection Team.

The North East has a dedicated surveillance system, EpiNorth3, which has been running for many years and collates details on cases of infectious disease, testing methods, exposures, etc. This system has a wealth of information that many FETP projects have been based on.
Key topic areas

Field Service topic leads:
Genomics, governance, surveillance and automation, healthcare associated infections and antimicrobial resistance, influenza, GAS

Research interests:
Vaccine preventable diseases, gastrointestinal infections, healthcare associated infections, global health

Location of office: Blenheim House, Leeds

Primary Field Supervisor: Gareth Hughes. Gareth.hughes@phe.gov.uk

Academic links: University of Sheffield, University of York, University of Leeds, Health Protection Research Unit in Modelling Methodology

Key Health Protection challenges

- large counties with some urban areas but significant rural areas with large farming communities
- area includes three international airports, two major seaports and a number of military bases
- recent increase in group A streptococcal infections (including invasive) primarily among homeless, PWID and other vulnerable communities

Recent fellow’s projects

- Get Tested LeEDs: Estimating bloodborne virus prevalence and associated risk factors through routine opt-out emergency department testing
- Investigating the burden of Varicella zoster infection in England
- Evaluation of hepatitis C surveillance
- Inequities in access to maternal and child healthcare and poor child outcomes in a rural area of Sierra Leone: first findings of a mixed methods study

Additional information

Co-located with the Health Protection Team and the PHE Centre. Close working relationship with the health protection team staff, allowing for early involvement of FS colleagues in outbreaks. Office located in Leeds city centre. PHE Consultant in Public Health Infection also has desk space in the office.
Key Health Protection challenges

- some of the highest rates of TB, STIs (including hepatitis) in the country
- large outbreaks of Salmonella and measles in recent years
- densely populated urban areas and sparsely populated rural areas with high levels of agricultural activity
- ongoing major issue with carbapenem-resistant Enterobacterales at a number of northwest hospitals
- huge legacy of contaminated land resulting from the chemical industry in parts of Cheshire and Merseyside, and two nuclear reprocessing facilities within our area

Recent fellow’s projects

- Challenges of investigating a large foodborne norovirus outbreak across all branches of a restaurant group in the UK, October 2016
- Evaluation of Salmonella surveillance questionnaire response combined with SMS messaging in Greater Manchester, United Kingdom
- Risk factors for community-onset Escherichia coli bacteraemia in North West England: a case-control study

Additional information

Co-located with Health Protection Team
Key topic areas
Vaccine preventable disease, GI, Hepatitis, Travel and Migrant Health, Influenza and other respiratory viruses, Group A Strep, TB

Location of office: Skipton House, Elephant and Castle, London
Primary Field Supervisor: Sooria Balasegaram, Sooria.Balasegaram@phe.gov.uk
Academic links: LSHTM, Imperial, UCL, HPRUs

Key Health Protection challenges
South East and London Field Service team is the busiest and largest FS team, serves an area comprising of almost a third of the population of England 16.5 million, 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.

Recent fellow’s projects

- increasingly limited options for the treatment of enteric fever in travellers returning to England, 2014-2017
- evaluation of an event-based surveillance system for detection of infectious disease outbreaks in Nigeria 2016-18

Publications:

3. Genomic sequencing of a national emm66 group A streptococci (GAS) outbreak among people who inject drugs and the homeless community in England and Wales, January 2016-May 2017
5. An innovative approach to increase viral hepatitis diagnoses and linkage to care using opt-out testing and an integrated care pathway in a London Emergency Department.

Additional information
We are co-located with the South London Health Protection Team and CRCE’s London and South East Environmental Hazards and Emergencies team. We support 7 local health protection units in London and SE and also can support joint projects with academia, Colindale, CRCE etc.
Key Health Protection challenges

- large area with rural and urban regions
- zoonosis are an important public health problem
- areas of deprivation with a high incidence of TB and sexually transmitted infections
- there are a number of prisons in the South West region

Recent fellow’s projects

- Clonal expansion of community-associated meticillin-resistant Staphylococcus aureus (MRSA) in people who inject drugs (PWID): prevalence, risk factors and molecular epidemiology, Bristol, United Kingdom, 2012 to 2017
- Social network analysis and whole genome sequencing in a cohort study to investigate TB transmission in an educational setting
- Use of an ingredient based analysis to investigate a national outbreak of Escherichia coli O157, United Kingdom, July 2016

Additional information

We are co-located with the Field Service Director and Central Team, the South West Health Protection Team and South West PHE Centre. We work closely with the South West PHE Centre, Bristol Public Health Laboratory, NHS organisations and Local Authorities.
Thames Valley Health Protection Team (TVHPT) and Centre for Radiation, Chemical and Environmental Hazards (CRCE)

Key topic areas

Environmental Epidemiology team, CRCE – national and international projects exploring the effect of environmental exposures on health and developing national environmental public health surveillance e.g. lead exposure in children surveillance, health effects of water fluoridation, burden of disease of carbon monoxide poisoning, chemicals in private water supplies, biomonitoring.

TVHPT – Vaccine preventable diseases, hospital acquired infections, TB, influenza, invasive group A streptococcus, gastro-intestinal infections.

Location of office: Chilton, near Didcot, Oxfordshire

Primary Field Supervisors: Clare Humphreys clare.humphreys@phe.gov.uk (TVHPT);
Helen Crabbe helen.crabbe@phe.gov.uk (CRCE)

Academic links: University of Oxford and HPRU links with Imperial College, Kings College, University of Leicester, Exeter University

Key Health Protection challenges

The Chilton site is the headquarters of CRCE and the national focal point for advice and guidance for environmental health including climate change, toxicology, radiation and chemicals. Developing surveillance of such risks and the novel use of IT to provide access to data and intelligence is one of the key areas for environmental epidemiology. Thames Valley has a population of 2.1M and is part of PHE South East (8.9M people). Thames Valley is a mixture of rural and urban areas with varying degrees of deprivation. TVHPT is a busy team with recent mumps, measles, invasive Group A Streptococcus and hospital acquired C.Auris outbreaks and TB clusters.

Recent fellow's projects

- Factors associated with delay in treatment initiation for tuberculosis, and impact on treatment outcomes and transmission: a cross-sectional study in the South East, UK
- Investigation of an outbreak of gastrointestinal illness following a golfing tournament at a Golf Club, Kent, April 2019
- Investigation of an outbreak of Cryptosporidium parvum in pupils and teachers of a school in Berkshire, April 2018
- Biomonitoring and environmental sampling in Georgia to establish sources of exposure of lead in children
- Developing options for a new national air pollution exposure surveillance system
- Evaluation of the Barbados National Disease Registry for Non-Communicable Diseases

Additional information

Shared site: You will split your time between the Environmental Epidemiology team in CRCE and TVHPT, whilst also maintaining close links with London and South East Field Service. You will have access to outbreaks and other projects across the South East as well as national and international projects.
Key Health Protection challenges

• some of the highest rates of TB, STIs (including hepatitis) in the country
• densely populated urban areas and sparsely populated rural areas requiring with varying infectious disease epidemiology
• large outbreak of measles in recent years, and a large West Midlands-wide measles needs assessment completed recently

Recent fellow’s projects

• Vaccination coverage survey following the mass vaccination campaigns for measles, cholera and polio in Cox’s Bazar, Bangladesh
• Evaluation of the West Midlands Enhanced Syphilis Surveillance Scheme including a capture-recapture analysis to assess data completeness, 2012 – 2016
• Socioeconomic and geographical variation in general practitioner consultations for allergic rhinitis in England, 2003–2014: an observational study
• Utility of ambulance dispatch data for real-time syndromic surveillance. A pilot in the West Midlands region, UK
• Detection and typing methods for a rare ST99 (O96:H19) enteroinvasive Escherichia coli during an outbreak in the UK.
• Sierra Leone Ebola Response
• The potential utility of syndromic surveillance to monitor the epidemiology of arthropod bites presenting for healthcare and arthropod bite sequelae in England
• Evaluation of the antimicrobial resistance surveillance system in England, January 2013 – March 2015

Additional information

Co-located with PHE’s real-time syndromic surveillance team [link] and the Health Protection Team.
The UK Field Epidemiology Training Programme cohort 2016 and 2017
About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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