#### **RESEARCH FELLOW**



Job Title:	Research Fellow in Epidemiology & Population Health
Department:	Public Health, Environment & Society
Faculty:	Public Health & Policy
Location:	Tavistock Place
FTE:	1.0 FTE
Grade:	G6
Accountable to:	Professor Steven Cummins (PI & HoD)
Job Summary:	We are seeking to appoint an experienced, motivated and enthusiastic post-doctoral epidemiologist or population health researcher to join a team working on the Kids' Environment & Health (KeCH) cohort in collaboration with UCL.  The postholder will lead the two demonstrator studies within this project aiming to explore how (i) greenspaces and (ii) the education environment affects children's mental and physical health.  The successful candidate will ideally have skills in advanced quantitative methods including longitudinal data analysis, the use of time-series and panel data, and the generation and linkage of neighbourhood environmental exposure data to large-scale administrative data.

### **General Information**

The London School of Hygiene & Tropical Medicine (LSHTM) is one of the world's leading public health universities.

Our mission is to improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

Staff and students are committed to helping create a more healthy, sustainable and equitable world for everyone, because we believe our shared future depends on our shared health.

We embrace and value the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements to improve health worldwide. We believe that when people feel respected and included, they can be more creative, successful, and happier at work. While we have more work to do, we are committed to building an inclusive workplace, a community that everyone feels a part of, which is safe, respectful, supportive and enables all to reach their full potential.

To find out more please visit our Introducing LSHTM page.

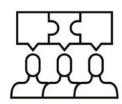
## **Our Values**

Our values establish how we aspire to achieve our mission both now and in the future demonstrating what it means to work and study at LSHTM. Please visit our LSHTM Values page for further information.









Work



Create

# **Faculty Information**

The School is divided into three academic faculties, of which the Faculty of Public Health & Policy is responsible for research and teaching in the policy, planning and evaluation of health programmes and services. Its interests are both national and international, encompassing industrialized and low and middle-income countries.

The Faculty has three research departments:

- Global Health and Development
- Health Services Research and Policy
- Public Health, Environments and Society

In the Faculty there are about 50 Professional Services staff members, and 280 academic staff drawn from a variety of disciplines including medicine, statistics, epidemiology, sociology, economics, anthropology, operational research, psychology, nursing and history. Each department is responsible for its own research. The School has adopted a rotating system of management for its academic departments and faculties. The management of a department is under the control of the Department Head, appointed by the Director for a period of three years in the first instance. The Faculty Head is appointed in a similar manner but for an initial period of up to five years.

The Faculty of Public Health and Policy is responsible for organizing a one-year Master's course in Public Health, which allows students to take either a general MSc in Public Health, or to follow one of several more specialised streams: Health Services Management, Health Promotion, Environmental Health or Health Services Research. The Faculty also jointly teaches the MSc Public Health in Developing Countries and MSc Control of Infectious Disease (with the Faculties of Infectious and Tropical Diseases and Epidemiology and Population Health), and MSc Health Policy, Planning and Financing (jointly with the London School of Economics). Master's courses are organized in a modular format across the whole School. One of the growing areas of Faculty teaching is distance-based learning, with MScs in Public Health and Global Health Policy. In 2019/20, over 370 students were registered for our face-to-face Masters programmes and 1367 students were registered for distance learning MSc's.

The Faculty has also reorganized and expanded its research degree (MPhil/PhD; DrPH) training. Currently there are about 164 students and 36 staff members registered for a research degree.

#### Department of Public Health, Environments and Society (PHES)

The Department (headed by Professor Steven Cummins) is one of three in the Faculty of Public Health and Policy and based in a new building (opened July 2023) in Tavistock Place. PHES carries out internationally renowned research into the social and environmental determinants of health and the evaluation and analysis of public health policy. It has a strong multi-disciplinary focus, with researchers working in the fields of sociology, anthropology, geography, history, epidemiology, and evaluation. Its principal areas of research include: drug use and health behaviour; sexual and reproductive health; young people's health; the social determinants of health; social interventions in health; the built environment and health; the environment, climate change and health; and history and health.

#### Population Health Innovation Lab (PHI-Lab)

Hosted within PHES is the Population Health Innovation Lab (PHI-Lab), where this role is located. PHI-Lab, co-directed by Professor Steven Cummins and Dr Laura Cornelsen, is dedicated to using expertise in epidemiology and public health, economics, sociology, evaluation and geography to understand and change the social, economic and environmental system drivers of population health. We have expertise in diet, food systems and health, and the socio-environmental drivers of obesity and NCDs.

We are a dynamic and social research group committed to supporting and developing the careers of talented post-doctoral researchers. The team currently consists of 8 academic staff, 6 PhD students and 3 Honorary Staff, making it one of the larger groups of researchers in this area in the UK. Current research is focused on understanding the social and economic drivers of food choice using big data (Cornelsen, Kalbus, Tanasche, Uilian); the built, digital, natural environment and diet and physical activity (Eling, Cummins, Basu); complex systems thinking and the use of agent-based models in population health (Cummins, Karapici, Greener), the evaluation of the impact of policy interventions such as banning junk food advertising, reducing takeaway proliferation, and taxes on sugar-sweetened beverages on diet (Cornelsen, Cummins, Hassan, Savory, Yau) and the impact of food system interventions on diet and sustainability (Cornelsen, Cummins, Savory, Yau, Kalbus). A range of funders including MRC, UKPRP, ESRC, BBSRC and NIHR supports our work. PHI-Lab is also affiliated to the NIHR School of Public Health Research @ LSHTM (SPHR@L) where we run a range of joint projects.

#### The Role

Phi-Lab@LSHTM is offering an exciting career-development opportunity for an ambitious post-doctoral researcher with an interest in the neighbourhood environment and children's health to join the team. We are seeking to appoint a Research Fellow with a track record in epidemiology and population health and has experience and expertise in conducting longitudinal data analysis of large-scale administrative data and generating and linking neighbourhood environment exposure data to routine data using geographic identifiers. Expertise and understanding of natural experiments and analysis techniques such as interrupted-time series or difference-in-difference analysis would also be useful (but not essential).

The KeCH Study is lead by Professor Pia Hardelid (UCL) with co-investigators Professor Steven Cummins (LSHTM), Dr Emilie Courtin (LSE), Professor Alison MacFarlane (City) and Dr Samanthan Hanja (Brock). The Research Fellow will be based at LSHTM and supervised by Cummins, with support from Courtin & Hanja. The postholder will ideally have experience in epidemiology and population health research, urban analytics and/or health data science; and the use, linkage and analysis of spatially referenced data.

The postholder will derive environmental exposures and undertake data linkage and analysis for two demonstrator projects (i) the effect of greenspace on children's mental health and (ii) the role of the local education environment on educational attainment, and health. Analysis will be conducted using a new large-scale linked administrative data resource of c14 million children and their mothers (the KeCH Study) funded by ADRUK.

The portfolio of duties outlined below will vary in accordance with the academic expectations of the role, which may be varied from time to time, and agreed at your annual Performance and Development Review (PDR).

# **Job Description**

#### Main Activities and Responsibilities

# **Knowledge Generation**

- To undertake high quality research & scholarship, including contributing to drafting major grant proposals and/or leading on drafting small grant proposals, and evaluating teaching practice;
- 2. To contribute to peer-reviewed publications and other outputs, including as lead author;
- 3. To make a contribution to doctoral student supervision, as appropriate to qualifications and experience;
- To manage small grants or elements of larger grants, ensuring compliance with good practice in relation to the conduct of research, the ethics policy and other relevant LSHTM policies.
- 5. You will work closely with Cummins, Courtin and Hajna to co-ordinate and ensure delivery of the programme of work scientifically and operationally, against objectives, on time and within budget. As part of this work you will be expected to:
  - a. Contribute to development of statistical analysis plans, technical protocols, workflows and study data user guides;
  - b. Link and integrate diverse environmental data sets (using geographic identifiers) to create residential greenspace and education environment exposures that will be subsequently linked to the KeCH data held in a secure research environment.
  - c. Undertake cross-sectional and longitudinal analyses and interpretation of KeCH data with a focus on (i) understanding the role of greenspace on children's mental health and (ii) exploring the impact of the local education environment on educational attainment and health.
  - d. Write up results in the form of peer-reviewed publications as first author, and contribute to other collaborative publications
  - e. Disseminate results to academic and non-academic audiences.

#### Education

- To contribute to the delivery of high quality, inclusive, research-informed teaching and assessment in relation to your specific subject and within the broader area covered by your department and disciplinary field;
- 2. To contribute to the improvement of the quality of LSHTM's education, by participating in the development of new and updated learning and teaching materials or approaches.
- 3. To provide ad-hoc methodological and analytical mentoring/support to colleagues in PHI-Lab and the wider Mandala consortium

- 1. To undertake activities that support the Department, Faculty, MRC Unit or LSHTM;
- 2. To reflect LSHTM's EDI goals in your work and behaviour;
- 3. To participate in LSHTM's PDR process.

#### **External Contribution**

- 1. To demonstrate good external citizenship by contributing to learned society/conference events, journal and grant reviews etc;
- 2. To contribute to the wider activities of LSHTM in London and the UK.

### **Professional Development and Training**

- 1. To keep up to date with the latest research/thinking in your academic field and with changes to pedagogic practice within LSHTM and more generally;
- 2. Where the length and nature of the position permits, to apply for and, if accepted, undertake a doctoral degree (if not already acquired);
- 3. To undertake and successfully complete the mandatory training required by LSHTM as appropriate to the role.
- 4. To acquire/update skills in epidemiological, statistical, evaluation and data science methods as applied to population health research.

### General

All academic staff are free within the law to question and test received wisdom, and put forward new ideas and controversial or unpopular opinions, to enable LSHTM to engage in research and promote learning to the highest possible standards.

All staff at LSHTM are also expected to:

- 1. Act at all times in LSHTM's best interests;
- 2. Treat staff, students and visitors with courtesy and respect at all times;
- 3. Comply fully with LSHTM policies, procedures and administrative processes relevant to the role, including when acting as Principal Investigator, accepting academic, managerial, financing and ethical responsibility for a project
- 4. Uphold and support LSHTM's values (as set out in the LSHTM Strategy);
- 5. Act as ambassadors for LSHTM when hosting visitors or attending external events.

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### **Academic Expectations**

All academic roles have a statement of academic expectations attached to each level. Please ensure that these have been read and understood. For further information please refer to the Academic Expectations page.

The above list of duties is not exclusive or exhaustive and the role holder will be required to undertake such tasks as may reasonably be expected within the scope and grading of the role.

Role descriptions should be regularly reviewed to ensure they are an accurate representation of the role.

# **Person Specification**

This form lists the essential and desirable requirements needed by the post holder to be able to perform the job effectively.

Applicants will be shortlisted solely on the extent to which they meet these requirements.

### Essential criteria:

- 1. A postgraduate degree, ideally a doctoral degree, in a relevant topic.
- 2. The ability to review and critically appraise quantitative population health research literature including the role of the neighbourhood environment in children's health.
- Training and experience in advanced epidemiological and/or data science and/or statistical methods with expertise (or capacity to develop expertise) in longitudinal quantitative data analysis, including analysis of panel data and ITS/DiD techniques.
- 4. Knowledge of generating, linking, and analysing spatially referenced neighbourhood environment data specifically: a) experience in the derivation of environmental measures using GIS software (e.g. ArcGIS Pro) and b) experience in the analysis of linked environmental and administrative or epidemiological data.
- 5. Proficiency in the use of software and coding languages appropriate for data handling and statistical analyses for example Stata, R, Python, Python Dash, SQL or other languages and experience in large-scale database management
- 6. Contributions to written output, preferably peer-reviewed, as expected by the subject area/discipline in terms of types and volume of outputs.
- 7. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.
- 8. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing
- 9. Evidence of good organizational skills, including effective time management.

#### Desirable Criteria

- 1. Some experience of contributing to research grant applications.
- 2. Some experience of teaching and assessment.
- 3. Some experience of supervising and supporting junior researchers and/or research degree students, and non-academic staff.
- 4. Understanding and appreciation of methods underpinning public health evaluation including using natural experiments.

# **Salary and Conditions of Appointment**

The post is full time 35 hours per week, 1.0 FTE and fixed term for 18 months. The post is funded by the Economic and Social Research Council (ADRUK/ESRC).

The salary will be on the Professional Services Academic Pathway salary scale, Grade 6 in the range £43,947 - £49,908 per annum (inclusive of London Weighting). The post will be subject to the LSHTM terms and conditions of service. Annual leave entitlement is 30 working days per year, pro rata for part time staff. In addition to this there are discretionary "Wellbeing Days". Membership of the Pension Scheme is available. The post is based in London at LSHTM.

LSHTM has a Hybrid Working Framework, which alongside agreed service requirements, enables teams to work more flexibly (if the role allows), promoting a greater wellbeing and work/life balance.

### **Application Process**

Applications should be made on-line via our jobs website. Applications should also include the names and email contacts of 2 referees who can be contacted immediately if appointed. Online applications will be accepted by the automated system until 10pm of the closing date. We regret that late applications cannot be accepted. Any queries regarding the application process may be addressed to jobs@lshtm.ac.uk.

The supporting statement section should set out how your qualifications, experience and training meet each of the selection criteria. Please provide one or more paragraphs addressing each criterion. The supporting statement is an essential part of the selection process and thus a failure to provide this information will mean that the application will not be considered. An answer to any of the criteria such as "Please see attached CV", "Yes" or "No" will not be considered acceptable and will not be scored.

Please note that if you are shortlisted and are unable to attend on the interview date it may not be possible to offer you an alternative date.

# **Asylum and Immigration Statement**

LSHTM will comply with current UKVI legislation, which requires all employees to provide documentary evidence of their legal right to work in this country prior to commencing employment. Candidates will be required to email a copy of their passport (and visa if applicable) to HR prior to their interview and if appointed will be asked to bring the original documents in to be copied and verified before their start date.

Applications from candidates who require sponsorship to work in the UK will be considered alongside other applications. Applicants who do not currently have the right to work in the UK will have to satisfy UK Visas & Immigration regulations before they can be appointed.

Further information about Sponsorship and eligibility to work in the UK, can be found on the government immigration rules page.

Date amended: Jan 2024