RESEARCH FELLOW

Job Title:	Research Fellow
Department:	Infectious Disease Epidemiology & International Health
Faculty:	Epidemiology and Population Health
Location:	Keppel Street, London
FTE:	Flexible from 0.5 to 1.0 FTE
Grade:	6
Accountable to:	Neal Alexander
Job Summary:	The role holder will conduct methodological research as part of a project to advance and facilitate the use of multiple systems estimation across disciplines, particularly in humanitarian and public health applications. Specifically, the Research Fellow will design reproducible, multilingual workflows to identify and analyse social media platforms across regions; build and benchmark search strategies and data pipelines in R/Python; and develop open-source tools for text and feature extraction. They will also quantify biases in social media data, explore how they can be mitigated, and develop and test evidence-based heuristics to support researchers in their choice and application of methods for multiple systems estimation.

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.

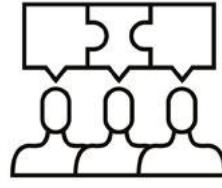To find out more please visit our Introducing LSHTM page.

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.

Act with integrity   **Embrace difference**   **Work together**   **Create impact**

Faculty Information

The Faculty of Epidemiology & Population Health (EPH) houses a large group of epidemiologists, demographers, statisticians and nutritionists working on major issues of importance to public health provision in the UK and globally. EPH employs approximately 560 people in five research departments.

- Department of Infectious Disease Epidemiology & Dynamics
- Department of Infectious Disease Epidemiology & International Health
- Department of Medical Statistics, which includes the Clinical Trials Unit
- Department of Non-communicable Disease Epidemiology
- Department of Population Health

The Faculty has a postgraduate teaching programme including eleven intensive MSc courses: Epidemiology, Demography and Health, Medical Statistics, Health Data Science, Public Health for Development (jointly with Faculties of Infectious & Tropical Diseases and Public Health & Policy), Nutrition for Global Health, Global Mental Health (jointly with Kings College London, Institute of Psychiatry), Reproductive & Sexual Health Research, Sexual & Reproductive Health Policy and Practice (online), Veterinary Epidemiology (run jointly with the Royal Veterinary College) and Climate Change and Planetary Health. There are also two Distance Learning MSc courses: Epidemiology and Clinical Trials. The Faculty also has approximately 220 research students studying for an MPhil, PhD or DrPH degree.

The Dean of Faculty is Professor Elizabeth Allen.

Department Information

The Department of Infectious Disease Epidemiology and International Health conducts research on the epidemiology and control of infectious diseases, and other topics relevant for global public health. Work is carried out in low-, middle- and high-income countries, including in the United Kingdom, in close collaboration with country partners and global stakeholders.

The Department has research groups working on maternal, perinatal and child health; adolescent health; infectious diseases including HIV, tuberculosis, malaria and Neglected Tropical Diseases; vaccines; and humanitarian crises. Most staff have a disciplinary training in epidemiology or medical statistics, and a background in one or more of biology, medicine, mathematics, or social science. The Department works closely with the Department of Infectious Disease Epidemiology & Dynamics. The Department Heads are Professor Oona Campbell and Professor Sian Floyd.

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

1. 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;

4. 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. Design and implement reproducible workflows to identify and prioritise social media platforms across multiple linguistic and regional contexts, incorporating platform penetration data, API availability, and data accessibility constraints

6. For the platforms identified above, develop, test, and optimise multilingual search strategies, including the construction of lexicons (keywords, n-grams, dialectal variants, synonyms) in collaboration with local experts, and benchmark their performance in terms of recall, precision, and computational efficiency.

7. Engineer and maintain scalable data acquisition pipelines from social media sources, primarily using R and/or Python, ensuring reproducibility through documentation, containerisation, and version control.

8. Contribute to the design and development of an open-source R package (or equivalent resource) for automated variable extraction, including modules for text preprocessing (tokenisation, stemming/lemmatisation, emoji parsing), feature extraction (named entities, numeric variables), and integration with classification models (traditional ML and/or deep learning approaches).

9. Design and carry out comparative analyses of large-scale social media datasets, including estimation of yield under alternative search strategies, normalisation by platform penetration and population denominators, and systematic validation against manually curated gold-standard subsamples.

10. Collaborate on the design and implementation of methods to quantify and mitigate biases in social media data (e.g. selection bias, survival bias, ascertainment bias), applying statistical and epidemiological approaches - such as weighting, survival analysis methods for length-biased sampling and Bayesian frameworks - and validating these against empirical data.

11. Develop and test evidence-based heuristics to support researchers in their choice and application of multiple systems estimation methods.

12. Collaborate with local partners and civil society organisations in the development of the above resources.

13. Collaborate on the design and delivery of a literature review of relevant potential biases in social media data.

14. Contribute to project reports, publications and meetings, including up to three overseas meetings per year, each of 1-2 weeks.

15. Assist in dissemination of findings, including preparation of manuscripts, presentations, and stakeholder briefings.

Education

1. 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.

Internal Contribution

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. Where appropriate, to represent the project and its outputs in external-facing engagements, e.g. with media or key international stakeholders.

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.

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.

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. Demonstrated experience in data science or a related field, including quantitative analysis, with application to large or complex datasets.

3. Knowledge of social media data sources, for example data accessibility, platform characteristics, and ethical considerations, and including development or application of search strategies and lexicons.

4. Demonstrated experience fitting statistical models and/or machine learning algorithms, and validating these in terms of performance and/or model assumptions.

5. Proven proficiency in R and/or Python (or similar tools) for data processing and analysis.

6. Familiarity with language processing techniques, such as text pre-processing (e.g. tokenisation, stemming/lemmatisation) and feature extraction.

7. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.

8. Contributions to written output, preferably peer-reviewed, as expected by the subject area/discipline in terms of types and volume of outputs.

9. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.

10. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing

11. 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. Fluency (especially reading) in Arabic, French and/or Spanish.

5. Previous working experience in or lived experience of humanitarian crises and/or low- and middle-income countries

Salary and Conditions of Appointment

The post may be offered on a full-time basis (1.0 FTE, 35 hours per week) or part-time basis (0.5 FTE, 17.5 hours per week) and is fixed-term until 30 November 2027.
The post is funded by NIHR and is available immediately. The salary will be on the LSHTM scale, Grade 6 in the range £45,728 - £51,827 per annum pro rata (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.

LSHTM operates a Hybrid Working Framework which, alongside agreed service requirements, enables teams to work more flexibly where the role allows - promoting wellbeing and a better work/life balance. Please note that roles based in London are required to work on-site a minimum of two days per week.

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 but due to the salary range for this role not meeting the UKVI requirements, only applicants under certain circumstances may qualify for sponsorship for this role. Please refer to the details on the Skilled Worker visa pages to check if you are able to be paid below the general threshold. Please indicate this in your application and proceed if you are able to meet the requirements.

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: January 2026