Job Title: Associate Professor

Department: Infectious Disease Epidemiology

Faculty: EPH

Location: South Africa

FTE: 1.0

Grade: G8

Accountable to: Dr Kathy Baisley

Job Summary: This is an exciting opportunity for an experienced and enthusiastic medical statistician with a significant track-record of epidemiological research to be employed by LSHTM, based at the Africa Health Research Institute (AHRI), KwaZulu Natal, South Africa.

AHRI has an ambitious epidemiological, clinical, laboratory and intervention research programme, a component of which accesses extensive health record data from its demographic surveillance setting. It is building extensive clinical and biological characterization onto its long standing population surveillance programme, with the opportunities for future studies within a precision public health paradigm. The post holder will have the opportunity to take a lead in analysis of such data and participate in defining priority research questions.

The work will focus primarily on HIV and TB, although AHRI is expanding its work on non-communicable diseases (NCD), and the biological interactions and health implications of the intertwined epidemics of HIV, TB and NCDs. The post-holder will play a leading role in this research, by providing statistical and epidemiological expertise and leadership.

The applicant will have experience in the analysis of large clinical and epidemiological datasets, ideally also with an understanding of biological data, and a strong research profile demonstrated through substantial peer-reviewed publications, presentations at international conferences, and writing grant proposals and/or study/trial protocols. S/he must be willing to be based at the AHRI site in Somkhele, although would also be expected to make regular visits to the Durban site. The applicant will also be required to travel to the UK occasionally for meetings.

The post holder will also contribute to the development and application of new statistical and epidemiological methods relevant for AHRI studies S/he will also be expected to contribute to the ongoing capacity development of AHRI collaborators in statistics and epidemiology, and to contribute to the School’s postgraduate teaching programme both at MSc and PhD level.
The post-holder will be expected to play an active role in the Institute’s research and teaching activities. The main duties of the post will include:

1. To contribute epidemiological and statistical expertise to the research agenda of the Africa Health Research Institute.
2. To lead on analysis of key questions relating to the determinants of ill-health in the populations under study by the Africa Health Research Institute.
3. To lead on the statistical aspects of study design, and provide statistical input into research proposals.
4. To supervise, train and mentor junior statisticians.
5. To provide statistical and epidemiological support to Faculty and other collaborators at the Africa Health Research Institute.
6. To exploit the opportunities for research arising from secondary analyses of Africa Health Research Institute datasets and lead the preparation of publications from this work.
7. To advise on data and statistical management for specific intervention and observational studies.
8. To contribute to LSHTM’s postgraduate teaching programme.
9. To contribute appropriately to the academic life of the Africa Health Research Institute, the TEG, and LSHTM.

GENERAL INFORMATION

The London School of Hygiene & Tropical Medicine

The London School of Hygiene & Tropical Medicine is a world-leading centre for research and postgraduate education in public and global health. 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.

Founded in 1899, the School has expanded in recent years at its two main sites on Keppel Street and Tavistock Place. Our staff, students and alumni work in more than 150 countries in government, academia, international agencies and health services. Research income has grown to more than £110 million per year from national and international funding sources including UK government and research councils, the European Union, the Wellcome Trust, Gates Foundation and other philanthropic sources. The School’s multidisciplinary expertise includes clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists, and we work with partners worldwide to support the development of teaching and research capacity.

Our education provision has expanded to more than 1,000 London-based Master’s and Research students, 3,000 studying postgraduate courses by distance learning, and 1,000 each year on short courses and continuous professional development. Our free online courses (MOOCs) are studied by more than 30,000 participants globally.

The School performs well in various global university league tables. In the US News Best Global Universities Ranking 2017, we are ranked sixth in the world (together with Oxford University) in the fields of social sciences and public health. In the 2016 CWTS Leiden Ranking, the School was ranked fifth in the world for research impact across all disciplines, based on the share of institutions’ outputs within the top 1% of papers by citation in all areas of science and independent of size of output.
The School was named University of the Year 2016 by Times Higher Education, in recognition of our response to the Ebola epidemic. The School is a member of the M8 Alliance of Academic Health Centres, Universities and National Academies, the Association of Schools of Public Health in the European Region, and the Consortium of Universities for Global Health.

FACULTY INFORMATION

The Faculty of Epidemiology & Population Health (EPH) houses a large group of epidemiologists, demographers, statisticians and nutritionists working on issues of major public health importance in the UK and globally. EPH has approximately 400 staff members organised into four research departments.

- Department of Infectious Disease Epidemiology
- Department of Medical Statistics
- Department of Non-communicable Disease Epidemiology
- Department of Population Health

The Faculty has a teaching programme consisting of ten MSc courses: Epidemiology, Demography and Health, Medical Statistics, Public Health for Development (run jointly with the Faculties of Infectious & Tropical Diseases and Public Health & Policy), Nutrition for Global Health, Reproductive & Sexual Health Research, Veterinary Epidemiology (run jointly with the Royal Veterinary College), Global Mental Health (run jointly with Kings College London - Institute of Psychiatry) and the Distance Learning courses in Epidemiology, Clinical Trials and Demography and Health. The Faculty also has approximately 120 research students studying for an MPhil, PhD or DrPH degree. The Dean of Faculty is Professor John Edmunds.

THE DEPARTMENT

Department of Infectious Disease Epidemiology conducts research on the epidemiology and control of infectious diseases of public health importance. It also conducts research on maternal and neonatal health. Work is carried out in low, middle and high income countries, including the United Kingdom. Research ranges from ecological studies of variations in disease frequency in different populations, through observational case-control and cohort studies to define risk factors for disease, to randomized controlled trials to test the impact of specific preventive and curative interventions. The Department Head is Dr. Veronique Filippi.

THE MRC TROPICAL EPIDEMIOLOGY GROUP

The MRC Tropical Epidemiology Group (TEG; Director: Professor Helen Weiss), established in 1972, is a group of approximately 35 statisticians and epidemiologists based in the Department of Infectious Disease Epidemiology at LSHTM and at research centres in Africa. The group is funded by an MRC Programme Grant (to October 2023), and has an extensive research portfolio of epidemiological research in resource-poor settings covering a range of diseases of major public health importance (including HIV, TB, malaria, neglected tropical diseases and global mental health). We have an extensive network of collaborators, including the MRC Units in Uganda and The Gambia, the Aurum Institute for Health Research (Johannesburg, South Africa), the Mwanza Intervention Trials Unit (Mwanza, Tanzania), and the Wellcome Trust Bloomsbury Centre for Global Health (London UK).

Further details are available on our website: http://teg.lshtm.ac.uk/

One of our key collaborators is the Africa Health Research Institute in South Africa (AHRI; see below). The post-holder will be full-time staff of LSHTM with a joint appointment with AHRI. The research interests of TEG are closely aligned with those of AHRI, including i) a major focus on evaluating HIV and TB prevention and treatment strategies in sub-Saharan Africa; ii) extensive expertise in designing and analysing individually- and cluster-randomised trials, iii) expertise in health systems research for non-communicable diseases (including mental health) in resource-poor settings, iv) a focus on adolescent health especially related to sexually transmitted infections (STI) and HIV.
THE AFRICA HEALTH RESEARCH INSTITUTE

The Africa Health Research Institute (AHRI; Director: Professor Deenan Pillay) was formed in October 2016 when the Africa Centre for Population Health merged with the KwaZulu-Natal Research Institute for TB-HIV (K-RITH) to form a single unified institute. AHRI is funded by the Wellcome Trust and the Howard Hughes Medical Institute. Principal academic partners are University College London (UCL), LSHTM, and the University of KwaZulu-Natal (UKZN). The activities of AHRI include basic science, antimicrobial resistance, epidemiology, intervention trials, health systems and social science research, underpinned by strong policy engagement.

AHRI is based at two sites in KwaZulu-Natal, South Africa: the K-RITH Tower Building, on the campus of the UKZN Nelson R. Mandela School of Medicine in Durban, and the Africa Centre Building in rural Somkhele, about two and a half hours drive from Durban. The K-RITH building contains over 600m$^2$ of biosafety level 3 (BSL-3) and 1240m$^2$ of BSL-2 laboratory space, and has a state of the art genomics laboratory to explore genetic susceptibility to disease, and how pathogens such as HIV and TB are transmitted.

Research at the Africa Centre site in Somkhele has historically centred on a sophisticated demographic surveillance system (DSS), established in 2000 to describe the demographic, social and health impact of the HIV epidemic in a rural population going through the health transition, and to monitor the impact of intervention strategies on the epidemic. The AHRI DSS is one of the largest population-based HIV incidence cohorts in the world, with over a million person-years of follow-up. In 2016, the surveillance area was expanded to include the communities of AHRI’s recently completed ANRS 12249 Treatment as Prevention (TasP) trial. The new structure is referred to as the population intervention platform and incorporates an area of 845 km$^2$ with a population of around 150,000.

The population intervention platform collects longitudinal household-level data, with extensive Geographic Information System information, and individual behavioural and biological data, in annual surveys. In addition, memoranda of agreement are in place to provide access to routine service delivery data from public health, welfare, home affairs and education authorities. These data are linked to individuals, and include electronic patient records for all individuals on ART, electronic TB registers, admissions at the district hospital, and routine laboratory results. This linkage provides a unique framework to obtain accurate measures of population dynamics, disease burden, and health service utilisation, and for implementation and evaluation of individual and population level interventions.

The research at AHRI is led by 19 Faculty members, and spans Epidemiology, Health Systems Research, Genomics, and Clinical Research, with other senior, mid-career and junior scientists pursuing their careers within this structure. A major strength of AHRI lies in the interactions between scientific disciplines and the true multi-disciplinary nature of all the AHRI research.

AHRI aims to undertake world class research in pursuit of improved health for its local population, with relevance to providing global solutions. The main focus is on HIV and TB, in recognition of the continuing burden of infection. AHRI research will also reflect the maturing epidemic in the context of widespread use of antiretroviral therapy and will aim to address three overarching questions: i) Can HIV be eliminated from the population, and if not, why not? ii) How best to minimize morbidity and mortality from HIV related disease, including TB? iii) How best can the health service manage the epidemiological transition to non-communicable diseases?

The portfolio of duties outlined below will vary in accordance with the detailed expectations of the role and any additional role to which you are formally appointed (attached), all of which may be varied from time to time, and as agreed at your annual Performance and Development Review (PDR).
JOB DESCRIPTION

Main Activities and Responsibilities

KNOWLEDGE GENERATION
1. To deliver high quality research & scholarship in your field of study, individually and in collaboration with others, by developing and maintaining a research grant portfolio from good research funders, publishing peer-reviewed outputs and generating and securing (where relevant) intellectual property;
2. To participate in research degree supervision and examination;
3. To lead and manage research teams and promote and ensure compliance of self and others with good practice in relation to the conduct of research, the ethics policy, and other relevant School policies;
4. To support the development of early-career researchers;

EDUCATION
1. To deliver high quality education 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 the School's education, by participating in the development and review of new and updated learning and teaching materials or approaches, and/or improving assessment practices, and/or improving aspects of the student experience;
3. To support educational leadership and management by active participation in Faculty and Programme or curriculum leadership roles, as appropriate, and by collaborating with professional services staff both centrally and in the Faculty office in carrying out relevant administrative processes;

INTERNAL CONTRIBUTION
1. To demonstrate good internal citizenship by undertaking PDRs and promoting staff development, and by participating in the recruitment, mentoring and support of more junior colleagues as appropriate;
2. To participate in the activities of School committees and undertake a leadership or administrative role at School/Faculty/Department level, as appropriate;
3. To participate in the activities of AHRI as appropriate;

EXTERNAL CONTRIBUTION
1. To demonstrate good external citizenship by linking with and supporting appropriate external organisations;
2. To promote knowledge translation and enterprise by exploiting academic knowledge beyond academia;

PROFESSIONAL DEVELOPMENT & TRAINING
1. To keep up-to-date with the latest research/thinking in your academic field and with changes to pedagogic practice within the School and more generally;
2. To undertake and successfully complete the mandatory training required by the School appropriate to the role;

1 Good research funders are: Research Councils; Government Departments; NIHR; National and overseas charities recognised by HEFCE for QR; Overseas research councils or equivalent including NIH; EU; other agencies (eg NGOs, commercial companies) supporting commissioned research that is consistent with School’s mission and meets School’s cost recovery targets
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 the School 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 the School’s best interests;
2. Treat School staff, students and visitors with courtesy and respect at all times;
3. Comply fully with School 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 the School’s values (as set out in the School Strategy document);
5. Act as ambassadors for the School when hosting visitors or attending external events;

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.

[MAY 2018]
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. PhD in medical statistics / epidemiology or a closely-related subject
2. Substantial experience working independently as a medical statistician, including leading the analysis of large and complex datasets within epidemiological research projects
3. Excellent publication record commensurate with experience
4. Experience of writing/contributing to peer reviewed grant applications
5. Comprehensive knowledge of a statistical software package such as Stata
6. Proven ability to work effectively as a member of a multidisciplinary scientific team and in a multicultural environment, as well as independently
7. Experience of line management and supervision of research staff
8. Proven written and oral communication skills in English
9. Willingness to be based at the Africa Health Research Institute

DESIRABLE CRITERIA
1. Experience in developing new statistical or epidemiological methods.
2. Experience analysing epidemiological studies of infectious diseases
3. Teaching experience at University level
4. Experience of working in low income countries
5. Supervision of PhD students
SALARY AND CONDITIONS OF APPOINTMENT

This is a full-time post based in South Africa and is funded from 1st October 2018 until 30th September 2021. The salary will be on the Academic scale, Grade 8 scale in the range £54,386 - £57,459 per annum. 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 “Director’s Days”. Membership of the Pension Scheme is available.

Applications should be made on-line via our website at http://jobs.lshtm.ac.uk. Applications should also include the names and email contacts of 2 referees who can be contacted immediately if shortlisted. Online applications will be accepted by the automated system until 10pm of the closing date. Any queries regarding the application process may be addressed to jobs@lshtm.ac.uk. Please quote reference EPH-IDE-2018-35

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" will not be considered acceptable. 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

Date compiled: May 2018
Academic Expectations: Associate Professor

Examples of expected types of activities are listed; the selection of activities will vary from year to year and not all activities in each category would necessarily be done in any one year. The statement in each shaded heading summarises the general expectations for contributions in each category.

**Knowledge generation:** Excellent academic research, effective support to doctoral degree students and effective research leadership and management

<table>
<thead>
<tr>
<th>Research and scholarship</th>
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<tr>
<td>• Research grant portfolio from good&lt;sup&gt;2&lt;/sup&gt; research funders (PI, co-PI or leadership within a large proposal such as work-package lead) that is consistent with the requirements for financial sustainability across the Department/Faculty</td>
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<td>• Collaborations with other research teams/institutions/industry</td>
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<td>• Contributions, including as lead, to peer-reviewed outputs, as expected by the subject area/discipline in terms of types and volume of output; significant contributions to at least four outputs within the most recent 3 years that are at least internationally excellent&lt;sup&gt;3&lt;/sup&gt; &lt;sup&gt;4&lt;/sup&gt;; Generation and securing of intellectual property including patents as appropriate</td>
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<td>• At least one oral presentation at international conference and one invited seminar or other talk per year over 3 year rolling average</td>
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**Doctoral degree supervision**

• Effective doctoral degree supervision within the supervision teams of at least two students, and contribution to at least two advisory panels or serving as chair of two final viva examinations, on average over a year
• Supporting timely completions and peer-reviewed outputs
• Examination as internal and/or external examiner

**Research management, leadership and support**

• Leading and managing research teams
• Support to career development of research team members (e.g. named as mentor on fellowship application)

**Professional development referenced to RDF**

• Senior management/leadership development and other development activities (e.g. advanced methods training, methods/conceptual development workshops, doctoral degree examiner training/observation)

**Education:** Delivering and developing high-quality research-informed education

**Teaching and assessment**

• High quality research-informed teaching, supervision and assessment, demonstrating adaptability to different needs and contexts; participation in quality assurance and quality enhancement processes, course committees and examination boards
• Personal tutoring allocation and/or specialist support for particular student groups (e.g. international, disability, student representatives)
• Development of less experienced educators (e.g. as peer-observer/mentor or leading staff development activities)

**Educational development and innovation**

• Research-informed educational development and innovation, including acting on student feedback; evaluation of selected aspects of developments/innovations

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<sup>2</sup> Good research funders are: Research Councils; Government Departments; NIHR; National and overseas charities recognised by HEFCE for QR; Overseas research councils or equivalent including NIH; EU; other agencies (e.g. NGOs, philanthropy, commercial companies) supporting commissioned research that is consistent with School’s mission and meets School’s cost recovery targets

<sup>3</sup> i.e. of a quality that would be rated highly in assessments of research quality such as those done by UK government, and in peer review processes used by funders

<sup>4</sup> Where publications are co-authored with other School staff, the volume should be such that each person has at least 4 distinct outputs
• Contributions to solving significant learning, teaching or assessment challenges; contributions to Education Task & Finish Group, Review Group, or similar
• Soliciting and using peer review of education delivery and/or development

*Education leadership and management*

• A leadership role at Programme or School level
• Contributions to education strategies and policies through committees, forums or review groups
• Leadership and/or management of selected aspects of the curriculum, (e.g. as module organiser/deputy, or responsibility for another aspect of the student experience)

*Professional development referenced to UKPSF*

Working towards fulfilling the criteria for Senior Fellow HEA through ongoing commitment to professional development activities

<table>
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<tr>
<th>Internal contribution: Contributions to School functioning and development</th>
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<tr>
<td><strong>Internal citizenship</strong></td>
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<tr>
<td>• Contributing as mentor (both within formal scheme and informally) to help develop and motivate colleagues</td>
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<td>• Engagement in: Council; Senate or Senate subcommittees; Ethics, Biological Safety, AWERB and other safety committees;</td>
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<td>• Ongoing contributions to School/Faculty/Department/MRC Unit interview panels and committees; organising events (e.g. related to education, research, capacity strengthening, research uptake); supporting broader education and doctoral degree processes;</td>
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<tr>
<td><strong>School leadership and management roles</strong></td>
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<tr>
<td>• ADoE, TPD, FDDD, DDDC, Centre Director/Deputy Director or theme leader, safety officer roles, Chair of Faculty or School committees</td>
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<td>• Supporting School partnerships (beyond own specific research activities)</td>
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<th>External contribution: Broad engagement in activities beyond the School</th>
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<tr>
<td><strong>External citizenship</strong></td>
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<tr>
<td>• Invited research and/or educational contributions to peer review bodies/roles, DSMBs, journal leadership, participation in professional organisations, learned societies, government and or parliamentary (e.g. APPG) committees, national/international meetings/working groups etc.</td>
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<tr>
<td><strong>Knowledge translation and enterprise</strong></td>
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<tr>
<td>• Exploiting research-based knowledge beyond academia, e.g. through IP exploitation, consultancies</td>
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<tr>
<td>• Participating in and developing external networks for the School’s benefit, such as identifying sources of funding, contributing to student recruitment, securing student placements, marketing the institution, facilitating outreach work, or building relationships for future activities</td>
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<tr>
<td>• Documenting impact of research and helping prepare impact case studies</td>
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<tr>
<td>• Supporting public engagement including MOOCs/OERs or other educational outreach</td>
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5 e.g. publication, conference presentation, special interest group, engagement with external examiners or reviewers, peer-observation

6 For example, Programme Director/deputy, Admissions Tutor, leadership role within collaborative education programme with other institution(s), representing Programme Directors'/Module Organisers’ Forums on SLTC, Chair of Education Task & Finish Group, Exam Board Chair; (Co-)Lead for education Quality Assurance processes