

RESEARCH FELLOW OR ASSISTANT PROFESSOR



Job Title:	Research Fellow or Assistant Professor
Department:	Department of Medical Statistics
Faculty:	Epidemiology and Population Health
Location:	Keppel Street, London
FTE:	FTE 1.0
Grade:	Research Fellow Grade 6 or Assistant Professor Grade 7
Accountable to:	Head of Department through Principal Investigator (PI)
Job Summary:	<p>We have an exciting opportunity for a full-time statistician to work in the rapidly evolving field of computer intensive methodology for causal inference, and its application to the analysis of large routinely collected health databases. The research involves close collaboration with the Electronic Health Records group and the OpenSAFELY collaborative (led by Ben Goldacre), which recently made fundamental contributions to understanding the COVID-19 epidemic. The successful candidate will develop and apply computationally intensive techniques to adjust for high dimensional confounding, with the goal of substantially improving the reliability of causal inferences from large, routinely collected observational databases.</p> <p>Applicants will need a PhD in biostatistics, or equivalent. The ideal candidate will have an aptitude for methodological research, experience in using propensity scores and be familiar with electronic health record data.</p> <p>The post is full time and fixed-term, available immediately and ending 31 December 2026.</p>

General Information

The London School of Hygiene & Tropical Medicine

The London School of Hygiene & Tropical Medicine (LSHTM) is renowned for its research, postgraduate studies and continuing 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.

We embrace and value the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements in contribution to improving 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.

History

Founded in 1899 at the London Docks, LSHTM is now based in Bloomsbury, where it has two main sites at Keppel Street and Tavistock Place, and additional sites in The Gambia and Uganda. Today, our staff, students and alumni work in government, academia, international agencies and health services across the world.

Research

Research income has grown to more than £180 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.

Our diverse research talents, skills and experience underpin our position as a leader in public and global health. These range from the molecular to the global, the theoretical to the applied, the analytical to the political. Our staff are conducting research in more than 100 countries.

Staff community

We have 3,300 staff based all around the world with core hubs in London and at the MRC Units in The Gambia and Uganda, which joined LSHTM in February 2018. Our outstanding, diverse and committed staff make an impact where it is most needed - deploying research in real time in response to crises, developing innovative programmes for major health threats, or training the next generations of public and global health leaders and researchers.

Partnerships

Working in partnership is central to achieving our mission. Our strategic collaborations in the UK and across high-, middle- and low-income countries deliver health and socioeconomic benefits across the world, especially in the most disadvantaged communities.

LSHTM is also a member of the M8 Alliance of Academic Health Centers, Universities and National Academies, the Association of Schools of Public Health in the European Region, and the Consortium of Universities for Global Health.

Education

We deliver research-led educational programmes to future health leaders, managers and researchers across the world. We have more than 1,200 face-to-face Master's and Doctoral students, 3,000 studying by distance learning, and 1,000 each year on short courses and continuous professional development. Our free online courses are studied by more than 270,000 participants globally.

Excellence in research and education

We perform strongly in various global university league tables. In the ShanghaiRanking's Global Ranking of Academic Subjects 2020 we placed 3rd in public health (1st in the UK). In the 2020 CWTS Leiden Ranking LSHTM is ranked the UK's top university for the proportion of academic research with women listed as authors, and third in Europe for publishing open access research.

In the US News Best Global Universities Ranking 2021, we ranked 3rd in the world for public, environmental & occupational health, 4th in the world for infectious diseases, 11th in the world for social sciences & public health, and 12th best University in the UK overall. We ranked 27th for medicine in the 2019 QS World University Rankings.

In 2017, the inaugural Center for World University Rankings by Subject placed LSHTM first in the world for tropical medicine research, second for parasitology and seventh for infectious diseases, public, environment and occupational health, and social sciences and biomedical.

LSHTM was named University of the Year 2016 by Times Higher Education and awarded a Queen's Anniversary Prize for Higher and Further Education in 2017 in recognition of our response to the 2014 Ebola epidemic in West Africa. LSHTM does not appear in the Times Higher Education World University Rankings as universities are excluded if they do not teach undergraduates.

We seek to foster and sustain a creative and supportive working environment based upon an ethos of respect and rigorous scientific enquiry. We embrace and value the diversity of our staff and student population and seek to promote equality as an essential element in contribution to improving health worldwide.

LSHTM is one of around 20 specialist institutions that receive institution specific funding from the Office for Students (OfS). This funding recognises the additional costs that LSHTM incurs because of its unique range of teaching, specialist facilities, and the scale of its contributions to national and international agencies.

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 in Health. The Faculty also has approximately 120 research students studying for an MPhil, PhD or DrPH degree.

The Dean of Faculty is Professor Elizabeth Allen.

DEPARTMENT INFORMATION

The Department of Medical Statistics (MSD) specializes in methodological research in medical statistics, especially in relation to clinical trials, observational epidemiology and disease prevention. The Department incorporates a Clinical Trials Research Group (concerned with planning, co-ordination, statistical analysis and reporting of clinical trials), and has a special interest in cardiovascular disease, asthma, HIV and perinatal studies. The Department has recently developed a strong interest in methodological and applied research in pharmaco-epidemiology.

MSD has established a reputation for being one of the leading innovative centres in Europe for biostatistical methodology relevant to the planning and reporting of medical research. The Head of Department is Professor Linda Sharples.

The portfolio of duties outlined below will vary in accordance with the detailed expectations of the role (attached), 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

Research Fellow

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 School policies;
5. To undertake a portfolio of novel biostatistical research in the area of high dimensional propensity score analysis in electronic health record data.

Assistant Professor

1. To deliver high quality research & scholarship in your field of study, individually and in collaboration with others, by applying for external grants/fellowships from good¹ research funders, publishing peer-reviewed outputs as lead and co-author and evaluating teaching practice;
2. To contribute to doctoral student supervision;
3. To manage research grants and promote and ensure compliance 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;
5. To undertake a portfolio of novel biostatistical research in the area of high dimensional propensity score analysis in electronic health record data.

Education

Research Fellow

1. To contribute to the delivery of high quality, inclusive, research-informed teaching and assessment in relation to your specific

Assistant Professor

1. To deliver high quality, inclusive, research-informed teaching and assessment in relation to your specific subject and within the broader area covered by your department/disciplinary field;
2. To contribute to the improvement of the

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

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 of new and updated learning and teaching materials or approaches;

3. To contribute to teaching about electronic health record research and health data science more broadly, either through face-to-face or distance learning modalities

quality and inclusivity of the School's education, by participating in the development 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 selected aspects of the curriculum, as appropriate, and by collaborating with professional services staff, centrally and in the Faculty, in carrying out relevant administrative processes;

4. To contribute to teaching about electronic health record research and health data science more broadly, either through face-to-face or distance learning modalities

Internal Contribution

Research Fellow

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

Assistant Professor

1. To undertake activities that support the Department, Faculty, MRC Unit or School, including Committee membership;
2. To reflect LSHTM's EDI goals in your work and behaviour;
3. To participate in own PDR and undertake those of others;

External Contribution

Research Fellow

1. To demonstrate good external citizenship by contributing to learned society/conference events, journal and grant reviews etc;

Assistant Professor

1. To demonstrate good external citizenship by contributing to the external academic community;
2. To promote knowledge translation and enterprise by participating in networks and activities that disseminate research-based knowledge beyond academia;

Professional Development and Training

Research Fellow

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. 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 the School appropriate to the role;

Assistant Professor

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;

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);
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.

[Jul 2021]

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:

Research Fellow

1. A postgraduate degree, ideally a doctoral degree in biostatistics or a similarly quantitative area.
2. Demonstrated aptitude for methodological research in causal inference.
3. Contributions to written output, preferably peer-reviewed, as expected by the subject area/discipline in terms of types and volume of outputs.
4. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.
5. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing.
6. Evidence of good organizational skills, including effective time management.
7. Good programming skills in R, Python, or equivalent. Please indicate the length of experience using these languages and depth of expertise (e.g. have you written packages?).

Assistant Professor

1. A postgraduate degree, ideally a doctoral degree in biostatistics or a similarly quantitative area.
2. Demonstrated aptitude for methodological research in causal inference.
3. Contributions as lead and co-author in 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 5 years which are at least internationally excellent².
4. Proven ability to work independently, as well as collaboratively as part of a research team, and to meet research deadlines.
5. An understanding of the strategies for improving equity and inclusion in research and or learning and teaching.
6. Evidence of excellent interpersonal skills, including ability to communicate effectively both orally and in writing.
7. Evidence of good organizational skills, including effective time management.
8. Good programming skills in R, Python, or equivalent. Please indicate the length of experience using these languages and depth of expertise (e.g. have you written packages?).

² 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

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| 8. Experience of applying high dimensional propensity scoring in routinely collected health data. | 9. Experience of applying high dimensional propensity scoring in routinely collected health data. |
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Desirable Criteria

Research Fellow

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. Some experience using Git.

Assistant Professor

1. Experience of generating research income such as fellowships, and/or small project grants, and/or supporting grant applications of others.
2. Some experience of supervising and supporting junior researchers and/or research degree students, and non-academic staff.
3. Some experience of undertaking teaching and assessment.
4. Demonstrable evidence of promoting inclusion in research and or learning and teaching.
5. A teaching qualification.
6. Some experience using Git.

E-Essential: Requirement without which the job could not be done
D-Desirable: Requirements that would enable the candidate to perform the job well

Salary and Conditions of Appointment

The post is full time and fixed-term, available immediately and funded until 31 December 2026. The salary will be on the Academic salary scale, Grade 6/7 in the range £40,611 - £46,119 for the Research Fellow and £47,405- £54,267 for the Assistant Professor 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. In addition to this there are discretionary "Wellbeing Days". Membership of the Pension Scheme is available. The post is based in London at The London School of Hygiene and Tropical Medicine.

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 appointed. 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.

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.

Asylum and Immigration Statement

The School 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 at: <https://www.gov.uk/guidance/immigration-rules/immigration-rules-appendix-skilled-worker>

Academic Expectations: Research Fellow

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. Research Fellows employed on research projects will be expected to focus on Knowledge Generation, in accordance with their job description, but some activity in other areas is required and will support career progression. Research Fellows predominantly employed to support Education will be expected to focus on Education, again as reflected in their job description.

Knowledge generation: Independent contributions and a clear trajectory towards excellence in knowledge generation

Research and scholarship

- Undertaking research
- Working with PIs to draft grant proposals and/or leading writing of small grants, work packages or sections of larger proposals or personal fellowship applications
- Contributing to peer-reviewed and other research outputs, including as first author, as expected by the subject area/discipline in terms of types of output
- Poster/oral presentations at relevant conferences, translation of research findings into educational materials
- Social media contributions such as twitter, blogs, web-based media or webinars

Reflective practice and critical enquiry (RPaCE)

- Contributing to RPaCE activities
- Designing evaluation studies
- Disseminating learning and experiences through presentations, blogs etc
- Contributing to enhancing teaching practice of others: e.g. mentoring, teaching observation and feedback

Doctoral degree supervision

- For RFs with Doctorate, some contribution to doctoral degree supervision is encouraged (e.g. specialist skills training; ad hoc advice; advisory committees). RFs without a Doctorate may also advise in areas of specialist knowledge

Research management, leadership and support

- Effective management of own time and activities
- Management of small research grants or elements of larger grants, including management of data collection and relationships with research collaborators, supporting/mentoring colleagues, support to grants management

Professional development

- Courses and other professional development activities, referenced to RDF
- Where the length, nature and funding source of the position permit, to apply for and, if accepted, undertake a doctoral degree (if not already acquired)

<i>Education: Basic competence in teaching and assessment</i>
<p><i>Teaching and assessment</i></p> <ul style="list-style-type: none"> • Research-informed teaching and assessment contributions (e.g. contributions to modules, MSc project supervision) <p><i>Educational development and innovation</i></p> <ul style="list-style-type: none"> • Contributing to the development of new educational materials, learning opportunities or assessments approaches <p><i>Education leadership and management</i></p> <ul style="list-style-type: none"> • None expected <p><i>Professional development</i></p> <ul style="list-style-type: none"> • Participation in professional development activities referenced to UKPSF (e.g. HEA, PGCILT, preparation for doctoral degree supervision, shadowing more experienced colleagues); acquiring Associate Fellow HEA
<i>Internal contribution: Contributions to School functioning and development</i>
<p><i>Internal citizenship including contributing to supportive academic environment</i></p> <ul style="list-style-type: none"> • Contributing to at least one Department, Faculty, School, or Centre event or special interest group in any one year, including EDI activities; • Taking on role as Digital Champion or Decolonising the Curriculum facilitator; Supporting external School collaborations/partnerships (beyond own research or education role) where relevant • Support to others' success (eg careers advice to students) <p><i>School leadership and management roles</i></p> <ul style="list-style-type: none"> • None expected
<i>External contribution: Contribution beyond the School</i>
<p><i>External citizenship</i></p> <ul style="list-style-type: none"> • Contributing to learned society/conference events, journal and grant reviews etc. <p><i>Knowledge translation and enterprise: not expected but options include:</i></p> <ul style="list-style-type: none"> • Collecting evidence of research impact for impact case studies (e.g. policy records, correspondence with policy makers, media highlights) • Engaging with policy/practice/industry/NGO communities and the general public • Supporting MOOCs/OERs or other (e.g. educational) outreach

Academic Expectations: Assistant 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. A research-focused academic will not be expected to demonstrate the same spread and depth of activities in Education as an Education-focused academic. Vice versa, an Education-focused academic will not be expected to demonstrate the same spread and depth of activities in Knowledge Generation as a research-focused academic. Job descriptions will set out the expected balance between Knowledge Generation and Education.

Knowledge generation: Independent academic with excellent knowledge generation contributions, supporting less experienced colleagues and with growing leadership skills

Research and scholarship

- Undertaking research individually and as part of a team
- Applying for external grants and/or fellowships primarily from 'good'³ research funders; contributing to work packages or elements within a large proposal
- For those on without duration contracts, salary recovery from research grants (whether as direct costs or directly allocated costs) and consultancy, on a rolling 3 year average, of not less than around 40% of salary (for those with substantial teaching or managerial responsibilities), and up to around 80% of salary for those spending the majority of their time on research; fellowship holders will usually recover 100% of their FTE⁴; these salary recovery expectations will be applied flexibly, allowing for individual circumstances and the balance of activities
- Contributing to financial sustainability of research group including exploring opportunities for industry funding for laboratory research
- Contributing as lead and co-author in peer-reviewed and other research 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 which are at least internationally excellent⁵
- Engaging in other research dissemination including competitively selected oral and poster presentations at leading conferences, invited seminars and talks, and social media contributions such as twitter, blogs, webinars

Reflective practice and critical enquiry (RPaCE)

- Leading RPaCE activities
- Designing evaluation studies
- Disseminating learning and experiences through posters, presentations, articles, social media contributions etc
- Contributing to enhancing teaching practice of others: e.g. mentoring, teaching observation and feedback

Doctoral degree supervision

³ Good research funders are: Research Councils; Government Departments; NIHR; open competitive calls from UK and overseas charities; Overseas research councils or equivalent including NIH; EU; other agencies (eg industry) supporting commissioned research that is consistent with School's mission and meets School's cost recovery targets

⁴ Exceptions include, for example, where staff hold prestigious fellowships which do not pay salary (eg Wellcome)

⁵ 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

- Contributing to doctoral degree supervision⁶ of at least one student, working within supervision team(s), supporting timely completions and peer-reviewed outputs
- Contributing to summative assessment processes (e.g. upgrade assessments, pre- and post-viva support for students)

Research management, leadership and support

- Management of entire research process or significant parts of it, including line and team management, grants management, management of research partner relationships
- Supporting career development of research team members and others (eg informal mentoring, reviewing draft papers, advising on specific issues e.g. statistical issues, methodology)

Professional development referenced to RDF

- Courses and other development activities, including mid-level management and leadership development

Education: *Undertaking teaching and assessment, and developing as a researchinformed educator within higher education*

Teaching and assessment

- Research-informed teaching, supervision and assessment
- Contributions to personal tutoring and/or development of less experienced educators (e.g. as peer-observer for PGCILT; as mentor; through leading staff development activities)
- Participation in programme committees and/or exam boards

Educational development and innovation

- Contributions to research-informed educational developments and innovations
- Activities aimed at improving some aspect(s) of the student experience, or quality of education programme(s).

Education leadership and management

- 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)
- Supporting others to provide an excellent student experience and solve significant problems
- Contributions to Education Task & Finish Group, periodic reviews, or similar

Professional development referenced to UKPSF

- Activities which lead to PGCILT Module 1 or equivalent, and preferably Fellow of HEA or equivalent (expected for education-focused assistant professor); thereafter continuing professional development.
- Activities that support professional development as an educator (e.g. training/educational studies, work-shadowing, use of feedback from students/colleagues)

Internal contribution: *Contributions to School functioning and development*

Internal citizenship including contributing to supportive academic environment

⁶ Students registered external to the School can be included (subject to agreement of DDDC/FDDD) where these fulfil capacity-building aims, support important research collaborations, or are a result of a recent move to the School.

- Engagement in any one year in at least one of: Senate or Senate subcommittee, Ethics Committees, MRC Unit, Faculty and Departmental committees; MRC Unit, Department, Faculty, School, Centre events or special interest groups including EDI related committees and networks; support to external collaborations/partnerships (beyond own research or education role)
- Taking on role as Digital Champion or Decolonising the Curriculum facilitator
- Support to others' success (eg involvement in School mentoring scheme)

School leadership and management roles

- Not expected

External contribution: Contribution beyond the School

External citizenship

- Membership of society/conference committees
- Journal, book and/or grant reviews
- Invited presentations

Knowledge translation and enterprise: options include:

- Exploiting research-based knowledge beyond academia, e.g. through IP exploitation, consultancies
- Participation in and development of 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
- Collecting evidence of research impact for impact case studies
- Supporting public engagement including MOOCs/OERs or other educational outreach