Trainee Statistician
Department of Health Sciences

Closing date: 26 March 2019
Interview date: To be confirmed
Vacancy reference: 7434
INTRODUCTION

York Trials Unit (YTU) is one of the UK’s leading centres for the design and analysis of randomised controlled trials. Due to the continued success of the Unit, we are seeking to expand our thriving team of medical statisticians and appoint a new trainee Statistician.

You will be based in our highly successful Trials and Statistics Group and work alongside Professor Catherine Hewitt who leads the quantitative analysis in the Unit. The Trials and Statistics group is led by Professor David Torgerson who is also director of York Trials Unit (YTU) which is embedded in the group. YTU is a UKCRC registered trials unit undertaking national and international, scientifically rigorous trials in a variety of areas whilst having a strong methodological portfolio associated with the conduct and analysis of trials. YTU undertake trials in a range of subject areas including surgery, mental health, musculoskeletal disorders, education and public health. You will have the opportunity to be part of a large and successful multi-disciplinary Department, renowned for its methodological expertise and commitment to policy relevant research.
Main purpose of the role

- To conduct statistical analyses and associated statistical programming for checking, manipulating, analysing and summarising data, under the direction of a senior statistician.
- To assist with checking the quality of data collected and raise / resolve queries with trial coordinators or data managers for any data anomalies.
- To provide on-going statistical advice during the development and conduct of studies, with support from senior colleagues.
- To assist with undertaking methodological research around the conduct and analysis of trials.

Key responsibilities

(Role holders will be required to undertake some or all of the duties below)

- Conduct routine statistical analyses and undergo training in more advanced methods.
- Conduct basic statistical programming and undergo training in more advanced programming.
- Undertake data cleaning and validation, including responsibility for raising queries for anomalies and missing data with trial coordinators.
- Perform checking and validation of basic statistical programming.
- Gain experience of presenting results to colleagues and healthcare professionals.
- Assist with teaching Health Sciences postgraduate students.
- Gain an understanding of coordinating small projects.
- Contribute to the Trials Unit administration: production of internal procedures and statistical system documentation.
- Liaise with trial managers and data managers to manage statistical and analytical aspects of studies and ensure data quality.
- Liaise with health economists to ensure consistency of clinical and economic analyses.
- Monitor trials and prepare interim reports, with support, for Data Monitoring and Ethics Committees and trial management group meetings.
- Assist with the preparation of reports for research funders.
- Contribute to the publication and dissemination of research findings in refereed journals.
- Help develop and conduct methodological work around the conduct and analysis of randomised controlled trials.
- Follow appropriate standard operating procedures and contribute to the writing of these, and other YTU procedures as required.
- Assist with organisational and administrative activities, including conference organisation, departmental meetings, attending other committee and working groups and supporting the development of promotional or educational material.
## PERSON SPECIFICATION

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A good first degree (usually 2:1 or above) in a relevant quantitative subject or, exceptionally, substantial experience at an equivalent level</td>
<td>Essential</td>
</tr>
<tr>
<td>Willingness to undertake further postgraduate study at the relevant level</td>
<td>Essential</td>
</tr>
<tr>
<td>MSc or PhD in relevant quantitative subject</td>
<td>Desirable</td>
</tr>
</tbody>
</table>

### Knowledge

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>A basic understanding of randomised controlled trials and their use in health research</td>
</tr>
<tr>
<td>Essential</td>
<td>Working knowledge of SPSS, STATA, R or an equivalent statistical package</td>
</tr>
<tr>
<td>Essential</td>
<td>A basic knowledge of how to design and analyse data from randomised controlled trials</td>
</tr>
</tbody>
</table>

### Skills, abilities and competencies

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Skills, abilities and competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>Ability to undertake, under supervision, basic data analysis of research relevant to randomised controlled trials (e.g. regression)</td>
</tr>
<tr>
<td>Essential</td>
<td>Ability to undertake basic statistical programming</td>
</tr>
<tr>
<td>Essential</td>
<td>Ability to explain statistical concepts in simple terms to individuals from non-technical backgrounds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Ability to use initiative in problem solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>Ability to log information in an efficient and accurate manner</td>
</tr>
<tr>
<td>Essential</td>
<td>Ability to work under supervision</td>
</tr>
<tr>
<td>Essential</td>
<td>Ability to cope under pressure while maintaining a high level of accuracy</td>
</tr>
<tr>
<td>Essential</td>
<td>Excellent organisational skills</td>
</tr>
<tr>
<td>Essential</td>
<td>Excellent written and oral communication skills</td>
</tr>
<tr>
<td>Desirable</td>
<td>Ability to write syntax for more advanced statistical analysis</td>
</tr>
<tr>
<td>Desirable</td>
<td>Ability to handle large datasets</td>
</tr>
<tr>
<td>Desirable</td>
<td>Ability to programme using a range of computer software packages</td>
</tr>
</tbody>
</table>

### Experience

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>A good understanding of how quantitative research data are presented and interpreted</td>
</tr>
<tr>
<td>Essential</td>
<td>Experience of managing and analysing data (as part of BSc or MSc course)</td>
</tr>
<tr>
<td>Essential</td>
<td>Experience of summarising data in a report format (as part of a BSc or MSc course)</td>
</tr>
<tr>
<td>Desirable</td>
<td>Relevant research experience</td>
</tr>
<tr>
<td>Desirable</td>
<td>Experience of working within a research team</td>
</tr>
<tr>
<td>Desirable</td>
<td>Experience of giving oral presentations</td>
</tr>
</tbody>
</table>

### Personal attributes

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Personal attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>Ability to work on own initiative and as part of a team with staff at all levels</td>
</tr>
<tr>
<td>Essential</td>
<td>Ability to prioritise and manage own workload</td>
</tr>
<tr>
<td>Essential</td>
<td>Enthusiasm, commitment and ability to produce consistently high quality work within tight deadlines</td>
</tr>
<tr>
<td>Essential</td>
<td>Willingness to engage in continuing professional development</td>
</tr>
<tr>
<td>Essential</td>
<td>A willingness to develop interests within the Trials Unit research areas</td>
</tr>
<tr>
<td>Essential</td>
<td>Reliability, trustworthiness and ability to maintain confidentiality</td>
</tr>
</tbody>
</table>
THE DEPARTMENT

The Department is located in modern, purpose-built accommodation on the University’s Heslington West Campus and includes 280 academics, teachers, researchers and support staff engaged in delivering research, professional development, education and training. Teaching and research programmes are underpinned by excellent administrative support systems for staff.

Our core aim is excellence in teaching and research, while contributing to improving health and healthcare through the application of our research to policy and practice. We are committed to having our teaching underpinned by our internationally renowned research. The University has an institutional research strategy [www.york.ac.uk/research/](http://www.york.ac.uk/research/) to which the Department contributes by developing strong and well-resourced research groups.

Our research is characterised by: interdisciplinary and international collaboration; a robust scientific foundation; and relevance for policy and practice. The Department organises its research activities around six core themes: mental health and addiction (Professor Simon Gilbody); trials and statistics (Professor David Torgerson); public health and society (Professor Kate Pickett); cancer epidemiology (Professor Eve Roman); cardiovascular health (Professor Patrick Doherty); and health services and policy (Professor Karen Bloor).

We have strong research and teaching links with the Hull York Medical School (HYMS), supported through a number of HYMS posts embedded our Department. We also have strong links with other centres and departments at York, including the Centre for Health Economics (CHE) and the Centre for Reviews and Dissemination (CRD), as well as other leading UK and international centres of applied health research.

Our research focus is supported by access to and innovative use of population data (including Department-led patient-based data systems), in addition to intervention studies conducted by the Department’s trials unit (York Trials Unit) and expertise in secondary data analysis, systematic reviewing and qualitative research. Academic disciplines represented in the Department include epidemiology, biostatistics, health economics, social policy, sociology and applied psychology. Our multi-disciplinary staff group also includes clinical academics involved in public health, primary care and mental health.

Our research rests on close partnerships with health and social care agencies and local and national government, in addition to various third sector organisations and international agencies, such as the World Health Organisation (WHO).
The Department has a strong culture of delivering research impact and in doing research that makes a difference. A key object of our research is to ensure our work has high visibility and impact with national and international audiences. This includes producing evidence which enables practitioners and policy makers to develop more effective interventions and gain insight into how social and economic context mediates the experience of health and the provision of health care.

We are also concerned to develop more speculative and theoretically-informed work critically evaluating the underlying assumptions of policy and practice. To achieve these impacts, we work closely with practitioners, policy makers and other researchers to share knowledge and disseminate our findings. We are equally committed to public and civil engagement and in sustaining our partnerships with third sector organisations and non-Government organisations.

In 2015/2016 the Department’s research related income was over £6.8 million, with over 120 staff actively involved in research. Funding comes from a number of sources including the National Institute for Health Research (NIHR), the Department of Health, the Economic and Social Research Council (ESRC), Medical Research Council (MRC), the British Heart Foundation (BHF), Cancer Research UK, Wellcome and Bloodwise.

In the most recent assessment of research quality in the UK (the 2014 Research Excellence Framework), the Department, along with its partners, the Centre for Health Economics, the Centre for Reviews and Dissemination and the Hull York Medical School, was ranked 7th nationally in the subject area of public health, health services and primary care. Members of the Department also contributed to returns in Sociology (ranked first) and Social Policy (ranked third).

Eighty three per cent of outputs submitted by our academic staff members have been judged as world leading or internationally excellent in terms of originality, significance and rigour. Our impacts were also judged to be outstanding or very considerable in terms of reach and significance. The department was ranked equal first nationally for its research environment and all aspects of our research environment was judged to producing research of world-leading quality in terms of vitality and sustainability.

Integral to our mission is career support, including doctoral studentships and fellowships, as well as the supportive management of those reaching the end of their research contracts.

We currently have over 1000 enrolled students on our suite of health professional education programmes enjoying the highest standards of professional and academic training in a lively and stimulating environment.
At pre-registration level we offer a range of different approaches to studying nursing. Our three year BSc nursing programme spans all four fields of practice (Adult, Child, Learning Disability and Mental Health). We also offer a fast track route to registration for graduates wishing to undertake nursing as a second degree. The Post Graduate Diploma programme is a two year shortened programme for existing graduates wishing to undertake a pre-registration nursing programme in either Adult or Mental Health. We have also developed a 4 year Integrated Masters option for candidates wishing to register as either Adult or Mental Health nurses with a special interest in community and primary care.

We are a highly regarded provider of nurse education achieving status as number one in England for Nursing (2014) by The Guardian League Table. A number of our nursing students have been nominated for and won prestigious Student Nursing Times awards during their pre-registration studies with us. Department of Health Sciences has an international reputation in the area of evidence based practice and teaching across our professional programmes is specifically designed to allow candidates to apply this knowledge to clinical practice.

In terms of Midwifery we also offer a small BA (Midwifery) programme which is one of the most oversubscribed and popular programmes of its kind in the UK. This programme has a strong interpersonal caring focus and has achieved prestigious accreditation with UNICEF for being ’Baby Friendly’.

Our Continuing Professional Development (CPD) / Specialist Skills Post Registration Development (SSPRD) programmes are designed to allow existing registrants to top up their clinical nursing skills in line with local and national health priorities such as long term conditions management, advanced nursing practice and primary care. On these programmes students balance part time study with work applying new knowledge to practice with the aim of enhancing patient care.

We currently have over 200 postgraduate students in our Graduate School which provides a vibrant, multidisciplinary learning environment. We offer a diverse range of full- and part-time taught and research-based postgraduate degrees designed for those wishing to develop and follow a career in public health, health services research and other health-related areas.

With respect to the taught programmes available, we have a Master in Public Health which runs in association with the Hull York Medical School, is suitable for students from a wide variety of disciplines who wish to pursue careers as public health practitioners or work in governmental or non-governmental organisations, both in the UK and overseas. The Department also offers an MSc in Applied Health Research which is particularly relevant for science and social science graduates interested in a career in health services research and health professionals who wish to develop their research skills. Many students from both programmes go on to complete PhD studies. In addition, we run an on-line MSc in International Humanitarian Affairs which allows field practitioners to engage with, and explore the fast-changing, contemporary debates over the theory, policy and practice of humanitarian affairs.

Our PhD students are embedded in one of our research groups and have the flexibility to tailor their studies to pursue their own research interests, and a bespoke training programme is designed in conjunction with the supervisory team to support the development of essential subject-specific and transferable skills for their future careers.

For more details about the Department of Health Sciences and our teaching and research activities please visit our website: http://www.york.ac.uk/healthsciences/
The University

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2019 it is the home of more than 18,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world's leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and one of just six post-war universities to have appeared in the world top 100. We were rated 22nd in the 2019 Times & Sunday Times league table. The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding multiple awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we’ve worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages.
THE CITY AND THE REGION

The City of York

Internationally acclaimed for its rich heritage and historic architecture, York’s bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford’s Tower and the Shambles - just a few of the many attractions.

But York isn’t just a great place to visit - it’s also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit www.visityork.org for more information on the city of York

Shopping, culture and entertainment

York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools

Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location

York is one of Britain’s best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King’s Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire

The Lonely Planet guide recently declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 7434
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 26 March 2019

What will I need?

We will ask you for details of:

- your employment history
- relevant qualifications
- two referees

You need to be ready to show us how you meet the requirements of the job, either in a written statement and/or by answering questions.

Help and assistance

Direct any informal queries to catherine.hewitt@york.ac.uk

If you have any questions about your application, contact the HR Services team:

recruitment@york.ac.uk
+44 (0)1904 324835