The Centre for Health and Social Care Research (CHSCR)

The Centre for Health and Social Care Research (CHSCR) conducts an extensive range of research, evaluation and development work in the field of health and social care. Our aim is to provide high quality research and development which has impact and is useful and relevant to policy makers, managers and practitioners. Our research themes include health disparities and global perspectives, maternal and infant health, health behaviour change, workforce transformation, cancer and end of life care, public health research, health economics and statistical modelling, health technologies and long-term conditions.

Our research and evaluation projects are designed specifically to suit individual customer's and funders needs and we undertake both short-term and long term contracts. We work closely with our clients to ensure we deliver services which meet their requirements, and have experience working with a broad customer base, including health authorities, social services departments, local councils, voluntary and community organisations, charities, and government agencies. We have expertise in a broad range of research approaches including evaluation, case studies, action research, participatory methods, surveys and qualitative methods.

How to apply

Applicants are requested to email a postgraduate application form (including a 1500 word proposal in section 9) to HWB-DoctoralAdmin@shu.ac.uk by 12 noon on Friday 24 February 2017.

Along with the proposal, please identify:

- the theme outlined below with which your proposal is aligned
- whether you are interested in a full-time (fully-funded) or part-time (fees only) scholarship

You are encouraged to find out more about our staff and their current research to inform the development of your proposal, which will help ensure your proposal aligns with our research themes. However, the details of any successful project could potentially change, given input from the supervisory team.

Where English is not your first language, you must show evidence of English language ability to the following minimum level of proficiency: an overall IELTS score of 7.0 or above, with at least 6.5 in each component or an accepted equivalent. Please note that your test score must be current, i.e. within the last two years.

Please view our eligibility criteria before submitting an application.

Selection process

Interviews will take place in the week commencing 27 March 2017.

Applicants are required to give a short 10–15 minute presentation followed by an interview. Interview panel members will include the postgraduate research tutor and a prospective director of

studies. Where travel to Sheffield is not possible, interviews may be conducted by Skype or conference call.

Research Areas

Applications for PhD study are invited across four key research themes within the CHSCR:

1) Health Economic & Statistical Modelling
2) Development and adaptation of health technologies to optimise diagnosis, rehabilitation and management of acute and long term conditions
3) Disparities and global perspectives in health and wellbeing, and
4) Using new statistical and data mining techniques to understand health data.

More detail of these themes is provided below. For informal enquires for any of these areas please contact Maria Burton (Postgraduate Research Tutor): m.burton@shu.ac.uk who will be able to direct your enquiry to the appropriate person.

1) Health Economic & Statistical Modelling (led by Dr Khaled Khatab)

This theme is focusing on the application of economic theory, statistical methods, models and empirical methods to the analysis of decision making by people, health care providers and governments with respect to health and health care. This covers economic evaluation of Health and Social Care, Econometrics, Statistical Modelling in Medical Research (e.g. Multivariate Statistics, Analysis of Discrete Data and State Space Models for Spatial Data, focusing mainly on the influence of environmental and Socio- economic factors on Health in diverse Population). Also research interests include, statistical methods applied to epidemiology and public health, survival analysis, and Bayesian Analysis. The aim is to contribute to health and healthcare in the UK and internationally, by conducting research on statistical methods, economic aspects of health and disease, the costs and benefits of prevention and treatment, and the design and evaluation of health systems. Researchers in this theme are conducting a wide range of health economics & statistical modelling research, and have particular expertise in:

- Economic evaluations decision analytic within clinical trials
- Modelling & Simulation
- Applied methods of cost effectiveness analysis
- Econometric & Statistical methods for health research
- Resource allocation
- Childhood interventions & cohort studies
- Measurement of health and health care

It is particular importance in all areas is the thoroughness, accuracy, and innovativeness of the research methods including health Economic & statistical modelling approach we use and apply.

Our group are involved in delivering many projects over a diverse range of research studies including: maternal and child health, physical activities interventions, CVD disease in the UK and abroad, dementia patients in the UK and abroad, public health problems in Europe and developing countries, and cancer projects.

2) Development and adaptation of health technologies to optimise diagnosis, rehabilitation and management of acute and long term conditions (led by Professor Karen Sage)

This theme addresses some of the major challenges outlined in the NHS five year forward plan; to keep people healthy; to enable speedy and accurate diagnosis once someone becomes acutely unwell; to provide evidenced interventions; to determine what stratified medicine entails for those with multi-morbidities and to indicate pathways that enable self-determined, longer-term health and wellbeing management.

The theme builds on a number of strengths from the Centre, including understanding of health-related behaviour, behaviour change, self-determined health management; new and emerging technologies (particularly non-invasive, non-ionising imaging systems) for timely diagnosis and management of a range of systemic and neurological conditions, repair, treatment and management of those with long-term conditions.

NHS collaborators are established for both adult and paediatric conditions. Research studentships are ongoing but new opportunities will arise in spheres of medicine/healthcare such as mental health, traumatic brain injury, stroke, frail elderly, dementia, acute medical emergencies, rehabilitation and repair services, neuro-enablement and social care.

3) Disparities and global perspectives in health and wellbeing (led by Professor Laura Serrant)

Our health, life chances and wellbeing as human beings are often affected or impacted on by our experiences and the differing contexts in which we live our lives. Many of these experiences are bound up with our identities, experiences and the social situations in which we live as individuals or members of a community. The increasing globalisation of the 21st century means that challenges to health and welfare are rarely the concern of only one country but instead transcend international borders. The term 'disparities' reflects the way in which experiences, clinical outcomes and access to resources vary within and between particular groups in society resulting in unwarranted variations in health, life chances and wellbeing. Studies in this theme focus on impact at an individual, local, national, international and global level. The range and scope of work in this theme encourages interdisciplinary applied research to make sense of the social, political, educational and economic situations that influence health and wellbeing within and between societies.

This is a new research theme in CHSCR building on the expertise and interests of existing staff, the wider faculty of Health and Wellbeing and the national/international work of the new Professor of nursing, Professor Laura Serrant. The short term aims are to build a strong reputation for interdisciplinary applied research in this area to inform professional practice, education and policy development. In the longer term this theme aims to become a centre of excellence for doctoral, post-doctoral and knowledge transfer activity in disparities and global perspectives focussed research.

Doctoral studies under this theme are invited which investigate and explore the underlying causes and pragmatic consequences of how identities, experiences and social contexts (including gender, disabilities, sexual orientation, education and economic status) as experienced by individuals, groups and communities impact on health, life chances and wellbeing.

4) Using new statistical and data mining techniques to understand health data (led by Professor Shona Kelly)

This is a data driven project to apply sophisticated analysis methods to interrogate local health data. Currently only basic statistical techniques, such as logistic regression, are used to try and identify, for example, which patients visit A&E frequently or have frequent hospital admissions. Alternative techniques such as decision trees and neural networks could be applied in this context. Using these alternatives together with traditional methods permits exploration of more sophisticated and unknown patterns within the data. In addition, it would be useful to identify subgroups in the population that are frequent users of NHS services by aggregate-characteristics rather than just having an overall description of the healthcare user population. This would require the use of clustering-type algorithms and again, for example, decision trees. These subgroups could then be targeted for further investigation and/or intervention. This project therefore aims to enhance the type of techniques typically applied in this context, whilst at the same time investigating some of the topical and practical issues within the provision of NHS services.

Long term the project would provide one of the essential building blocks to understanding, not only the patterns of demand for NHS services, but to other drivers such as social deprivation. This project uses advanced statistical and data mining techniques so the candidate must be comfortable with numerical data and willing to learn SAS.

The candidate must have sufficient numerical and mathematical skills to be able to learn and apply such techniques to these data. If you are already familiar with some statistical or machine learning methods, that would be an advantage.   Some initial preparation of the data is required so skills in databases and data cleaning would be beneficial.