

Health Economics Unit

Another Christmas is almost upon us and just as the focus of the season relates to events in a far off land (many years ago), the predominant focus in this issue is also an international one. Below and inside we introduce two significant University of Birmingham-led global-focused projects. Sue Jowett introduces her NIHR Global Health Research Group role (see below) exploring issues related to Atrial Fibrillation (AF). AF is not new to Sue though, as she has a well-respected track record of health economic research in this clinical area. Inside, Mark Monahan (page 2) describes his role as principal researcher for the NIHR Global Health Unit on Global Surgery and the opportunity that he is exploiting to pursue a PhD exploring the appropriateness of different modelling techniques to low resource settings.

Our four new PhD students bring an international perspective and in the case of Patrick and Katherine, will be researching mental well-being with the use of international data sets. The other two new PhD students, Sonja and Syed, are supported by Umbrella-funded studentships to explore various economic aspects of sexual health.

Meanwhile, staff member Karen Pickering has recently presented work from her part-time PhD at the EuHEA student

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supervisor conference in Sicily on the feasibility of transferring a UK economic evaluation to lower income countries.

We are delighted to pay tribute to our most recent completing PhD students on their success. Congratulations to Dr Chidubem (Duby) Ogwulu on the successful defence of her PhD in September and Dr Magda Aguiar on her graduation in the summer (page 4).

Season's Greetings and Happy New Year.



Tracy Roberts,
Head of Unit

Have you heard...?

...about two exciting new studies?

HEU's **Sue Jowett** is leading the health economics research on two recently-funded research grants, one with a local focus and the other with an international flavour!

WM-Air, the West Midlands Air Quality Improvement Programme, is one of only two £5m projects funded by the Natural Environment Research Council's Regional Impact from Science of the Environment (RISE) initiative. The project, led by Professor William Bloss from the School of Geography, Earth and Environmental Sciences (University of Birmingham), will provide improved understanding of sources and levels of pollution in the region, and the capability to predict air quality, health and economic impacts of potential policy measures. The health economic component of the health strand (led by the Institute of Applied Health Research) aims to predict the cost-effectiveness of such policies and the impact on health, health and social care costs and quality of life, using decision modelling. This challenging and exciting study not only builds on Sue's expertise in chronic disease decision modelling, but also links back to her previous life as a geography and meteorology and climatology student!

Sue is also part of the successful NIHR-funded Global Health Research Group on Atrial Fibrillation (AF) management, led by Professor Gregory Lip from the Institute of Cardiovascular Sciences (University of Birmingham). The work aims to explore issues related to the detection and management of AF, whilst building research capacity and long-term collaborations with China, Brazil and Sri Lanka. Of particular interest to her is the project with Sri Lanka which considers both the effectiveness and cost-effectiveness of AF case-finding in the community. This is another blast from the past for Sue, as her first job as a health economist (almost 20 years ago!) was working on a UK screening study in AF (the SAFE study), which was subsequently the focus of her PhD.

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Global Surgery

Surgical care is an important consideration for health systems with an estimated 312.9 million operations conducted worldwide in 2012 alone. Lower and Middle Income Countries (LMICs) spend comparatively little on healthcare per capita, relative to high income countries, and face considerable challenges around resource constraints. In LMICs, shortfalls in surgical labour and surgical infrastructure threaten the effectiveness of surgery and the feasibility of implementing new interventions.

HEU's **Mark Monahan** is the Health Economist within the NIHR Global Health Research Unit on Global Surgery. The unit is launching a number of initiatives to improve care for surgical patients in LMICs. Mark's role (overseen by HEU's **Tracy Roberts**) is to provide health economics input to the programme, including trial-based economic evaluations of surgical trials in LMICs. One planned multinational trial (FALCON) is looking at different methods to reduce surgical site infection (SSI). Launched with partners from various LMICs, plus the Universities of Edinburgh and Warwick, the Unit aims to establish independent and sustainable research 'hubs' and/or trial centres in partner countries across three continents that will perform their own clinical research relevant to local populations while serving global needs.

Every year an NIHR hub centre will host a Research Prioritisation Workshop where surgical researchers, healthcare professionals and policy makers meet to discuss research themes and priorities. This year, the workshop took place in Kigali, Rwanda. The outcomes from these workshops form the basis of future cohort studies, leading ultimately to international, multi-centre randomised controlled trials.



Mark, Tom & Tracy in Kigali

Mark is also undertaking a PhD alongside the Global Health work and is supervised by HEU's Tracy Roberts and **Sue Jowett**, along with Mr. Thomas Pinkney (Consultant Colorectal Surgeon and Clinical Director of the Birmingham Surgical Trials Consortium). The PhD is exploring the appropriateness of different modelling techniques in representing various low resource LMIC settings within the surgical context.

Shifting Shapes

Health and social care funding constitutes a substantial proportion of public expenditure. In 2015–16, the UK public sector spent £220.2 billion on health, social care, and benefits to support people with disabilities and health conditions. The Care Act 2014 assigned local authorities (LAs) in England the responsibility to ensure that there is a wide variety of good quality care services available for people who need them. To meet this aim, LAs were given the duty of shaping local care markets. Market shaping refers to the range of ways in which LAs influence the behaviour of providers and people needing care and support within their localities.

HEU's **Warda Tahir** and **Hareth Al-Janabi** are collaborating with colleagues from the Health Services Management Centre (HSMC) on 'Shifting Shapes', a project evaluating the impact of the Care Act 2014. The project has several objectives and dimensions, with Warda and Hareth's work focusing on evaluating the cost-effectiveness of policies implemented post the 2014 Care Act. The cost-effectiveness of the market shaping intervention will be explored through two different types of economic analysis. The first will focus on the impact of market shaping in eight case-study local authorities, using primary data on resource use and quality of life collected through face-to-face interviews and focus groups to estimate these effects. The sample will be comprised of both care users and family carers, given that the latter are also likely to be affected by policy changes post Care Act. The second economic analysis will investigate quality of life outcomes in LAs that have taken different approaches to market shaping at a national level. Econometric methods will be used to analyse survey data, comprised of a sample of local authority-funded care recipients.

Shifting Shapes is funded by the Department of Health Policy Research Programme and led by Professor Catherine Needham from HSMC.



Warda and Hareth

What's new in HEU?

Our New PhD students!

We wish to extend a very warm welcome to our new PhD students, **Naijie (Katherine) Guan**, **Fangzhou (Patrick) Xu**, **Muslim (Syed) Syed** and **Sonya Bloch**.

Katherine and **Patrick** both return to Birmingham having previously studied here for their MSc degrees.

Katherine has just started a PhD studying the links between economic literacy and mental wellbeing, supervised by HEU's **Hareth Al-Janabi** and **Patrick Moore**, together with Professor Alessandra Guariglia (Department of Economics, Birmingham Business School). With the prevention of mental health problems gaining increased attention, this PhD offers an opportunity to explore economic determinants of mental wellbeing. Katherine will be using international panel datasets and econometrics in her study and her research will help us better understand the impacts of financial literacy and determinants of mental health in China and elsewhere.

Patrick starts a University of Birmingham-funded global challenges PhD on economic shocks and mental wellbeing around the world. He is based within Birmingham Business School and supervised by Professor Alessandra Guariglia, along with Hareth. Patrick's PhD offers an exciting opportunity to better understand the health and wellbeing consequences of economic shocks in Asia, with a particular focus on mental wellbeing. Patrick will also be utilising panel datasets and econometric methods in his research.



Syed and **Sonya's** PhD's are both funded by Umbrella - part of University Hospitals Birmingham (UHB) NHS Foundation Trust.

Syed starts his PhD study directly after graduating from the MSc in Health Economics and Health Policy here at the University of Birmingham. Syed's PhD will explore how we measure and assess patient experience and satisfaction with sexual health services. The project is led by HEU's **Tracy Roberts** and **Louise Jackson** and Syed will also be supervised by Professor Jonathan Ross and Dr Nicola Thorley from University Hospitals Birmingham NHS Foundation Trust.

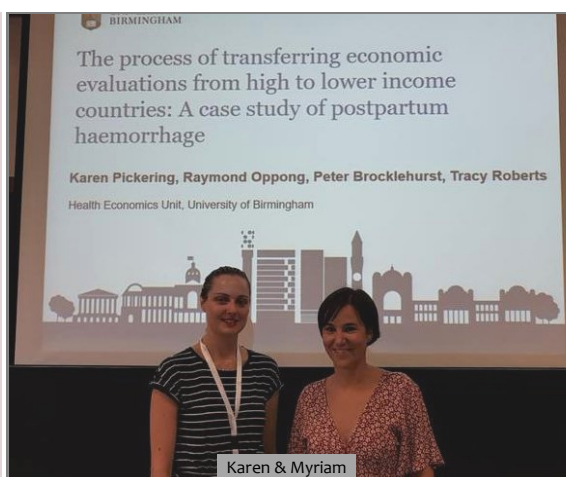


Sonja will focus on the measurement of costs and benefits for sexual health programmes for her PhD and will be supervised by HEU's **Louise Jackson** and **Emma Frew**, together with Professor Jonathan Ross from University Hospitals Birmingham NHS Foundation Trust. The aim of the PhD is to develop methods to create economic evidence that is meaningful for local decision-makers. Before coming to Birmingham, Sonja completed her MSc in International Development and Management at Lund University.

Pelham's Pen



A young man hired by a supermarket reported for his first day of work. The manager greeted him with a warm handshake and a smile, gave him a broom and said, "Your first job will be to sweep out the store." "But I'm an economics graduate," the young man replied indignantly. "Oh I'm sorry. I didn't know that," said the manager. "Here, give me the broom - I'll show you how!"



HEU's **Karen Pickering** and **Tracy Roberts** attended the EuHEA student-supervisor conference, hosted by the University of Catania, Sicily, from 5th - 7th September. Karen presented work from her PhD, on the feasibility of transferring a UK economic evaluation to lower income countries. We are grateful to Myriam Soto-Gordoa (Associate Professor at Mondragon University, Spain) for providing a discussion of Karen's paper and for stimulating constructive discussion.

Congratulations to...

Chidubem (Duby) Ogwulu on successfully defending her PhD thesis in September. Duby will graduate at a degree congregation to be held in the Great Hall at the University of Birmingham in December 2018. For her PhD, Duby developed and piloted an approach for the valuation of temporary health states associated with sexually transmitted infections. We are grateful to Duby's examiners, Professor Colin Green from Exeter Medical School, and HEU's **Hareth Al-Janabi**, as well as to HEU's **Sue Jowett** for chairing the Viva. Duby's very proud PhD supervisors were HEU's **Tracy Roberts**, **Louise Jackson** and **Phil Kinghorn**.



Duby is pictured centre with L-R: Sue, Hareth, Colin, Tracy, Phil, Louise

Congratulations to Dr Magda Aguiar who graduated in the Summer with her Doctor of Philosophy. Magda developed a decision analytic model to compare the long-term cost-effectiveness of strategies to prevent population Vitamin D deficiency in the UK was supervised by HEU's **Emma Frew**, and Dr's Wolfgang Högl and Miranda Pallan (UoB).



Miranda, Magda, Emma

Health Economics MSc Programmes and associated short courses

HEU runs two separate but allied MSc programmes: **MSc Health Economics and Health Policy** and **MSc Health Economics and Econometrics**. Both programmes explore the key principles and theories upon which health economics is based as well as developing practical skills for the conduct of empirical work. Selected modules are also accessible as short courses (see website for details). For more information visit: www.birmingham.ac.uk/healthconomics or email healthconomics@contacts.bham.ac.uk

Selected recent publications

Bailey C, **Kinghorn P**, Hewison A, Radcliffe C, Flynn T, Huynh E, & Coast J. "Hospice patients participation in choice experiments to value supportive care outcomes", *BMJ Supportive & Palliative Care*. In Press. DOI: [54.5570/bmjspcare-2018-001582](https://doi.org/10.1136/bmjspcare-2018-001582)

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Lasseter G, **Al-Janabi H**, Trotter CL, Carroll FE, Christensen H. "The views of the general public on prioritising vaccination programmes against childhood diseases: A qualitative study". *PLoS ONE* 2018. DOI: [10.1371/journal.pone.0197374](https://doi.org/10.1371/journal.pone.0197374)

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Oyebode JR, Pini S, Ingleson E, Megson M, Horton M, Clare L, **Al-Janabi H**, Brayne C, Wright P. "Development of an Item Pool for a Needs-Based Measure of Quality of Life of Carers of a Family Member with Dementia" *Patient* 2018. DOI: [10.1007/s40271-018-0334-4](https://doi.org/10.1007/s40271-018-0334-4)

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