

Welcome... from our Director, Professor Chris Bojke



We are very happy to welcome several new members of staff Ruben Mujica-Mota, Samuel Frempong and Donna Irving who have joined the team. We would also like to wish Rocio Rodriguez Lopez all the best in her new career as she leaves us to join Public Health Wales. And of course congratulations to Charlotte Kelly who has successfully completed her PhD and joined the University of Hull.

It was great to see a strong Leeds presence at the recent successful HESG, brilliantly hosted by UEA. I

thought it really reflected the kind of wide-ranging research we do at Leeds with a focus on methodological rigour applied to important research questions with health economics being used to understand and quantify the mechanisms and drivers of costs and benefits rather than simply producing a cost per QALY summary.

It has also been a good few months for the teaching side of our output. It was a real pleasure to hear the very positive feedback from a week-long Cost Effectiveness Modelling for HTA course delivered by the team in Lucerne, Switzerland and there are now plans to make this an annual event. Following on from the success of the economic evaluation of tests course delivered last year, Beth Shinkins will be repeating this well-received 1-day course again on Sept 5th.

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ABOUT THE UNIT

AUHE was established in 2007 to create a health economics research and education centre with a portfolio of applied and methodological research.

The research includes:

- *economic evaluations alongside clinical trials*
- *value of information studies*
- *valuation of health, health care and wellbeing*
- *priority setting in health care*
- *health care policy*
- *early stage efficiency in research and development*
- *applied health econometrics*

NEW AUHE PROJECT:

WHAT IS THE COST-EFFECTIVENESS OF HOME ADAPTATION FOR OLDER PEOPLE?

Home adaptations can help promote independence in later life, and the 2015 Government Spending Review increased the budget for Disabled Facilities Grant (DFG) in England from £220m to £431m in 2017/18, with incremental rises up to 2020. Available international evidence indicates benefit from home adaptations for older people, but there is an absence of high quality evidence from UK studies. In addition, there is an absence of evidence on cost-effectiveness of home adaptations.

Evidence on cost-effectiveness of home adaptations for older people is critically important as it can help support sustainable commissioning. Furthermore, evidence that highlights how home adaptations should be targeted for particular groups to maximise benefit can help identify how commissioning of services should be refined to provide greatest value for money. Finally, we need more knowledge about the effectiveness of home adaptations in improving health outcomes related to falls.

The aim of our study is to provide evidence on the cost-effectiveness of home adaptations for older people, including for those living with different levels of frailty. We will also assess the impact of home adaptations on fall-related hospital admissions. The study will use routine data from Care and Repair Cymru linked with health and care data in the Secure Anonymised Information Linkage (SAIL) Databank. The study is funded by the Dunhill Medical Trust and is a multi-centre collaboration between the University of Leeds, Swansea University and University of Liverpool. Care & Repair Leeds, Care & Repair Cymru, Care & Repair England, Age UK Leeds and Foundations are partners on the project.

Silviya Nikolova (AUHE) is the Principal Investigator on the project. **Silviya Nikolova** and **David Meads** lead on the health economics component of the study.

WELCOME TO: RUBEN MUJICA-MOTA

Ruben joined the AUHE as an Associate Professor in Health Economics in May 2019. He is an applied econometrician and health economics decision modeller. He has previously held a senior lecturer post at the University of Exeter where he led a team of mathematical modellers, systematic reviewers, information specialists and statisticians producing evidence for informing NICE guidelines.



Ruben's main research interest is the use of observational data to evaluate the effectiveness and cost-effectiveness of treatments commonly used in routine practice, especially in orthopaedics, cardiovascular disease, and oncology. He is currently working with linked data from electronic medical records to evaluate the use of statins in older patients and evaluating the impact of obesity on retirement decisions using mediation analysis. He is interested in supervising PhD students investigating the relationship between labour supply and health, and methods of big data analysis for drawing causal inference and explaining demand for health care services.

WELCOME TO: SAMUEL FREMPONG



Samuel is a pharmacist, health economist and a researcher interested in a wide range of research topics, such as economic evaluations conducted at the early phases of medical technologies development (particularly diagnostic tests), medical test evaluation, decision analytic modelling, priority setting in low and high income countries and universal health coverage. He is currently working on the SOMAscan Health Insight project which aims to determine whether the use of the SOMAscan Health Insight report is cost-effective compared to usual care on short-term costs and benefits in primary care patients identified as pre-diabetic and eligible for the NHS Diabetes Prevention Programme (NDPP) but have previously declined to participate.

WELCOME TO: DONNA IRVING

Donna joined AUHE in February 2019 as an information specialist. Prior to this she ran the health studies section of the library at the University of Bradford, supporting both the teaching and research requirements of the Faculty of Health Studies. She was a member of the Health Studies faculty research committee which set the research agenda, and developed and delivered the University library research offer. She acted as Information Specialist on various research projects. She has taught systematic review searching, critical appraisal skills and digital information literacy and holds Fellowship of the Higher Education Academy.



MAKE SURE YOU DON'T MISS... ECONOMIC EVALUATIONS OF TESTS

This hands-on one day course, run by the NIHR Leeds In Vitro Diagnostics Co-operative, provides a general introduction to health economics, and then focuses on some of the nuances of test evaluation and some key considerations when carrying out an economic evaluation of a medical test.

The course will consist of a series of interactive exercises, intertwined with some short lectures. Key topics such as care pathway mapping, diagnostic accuracy, outcomes beyond accuracy, and linked evidence modelling will be covered.

- Targeted at those with no modelling experience
- No programming experience necessary – all exercises will be in Excel
- Lunch and refreshments will be provided on the day

Course director: Dr Bethany Shinkins, Test Evaluation Group Lead. Course fees: £165, £110 students.

For more information contact b.shinkins@leeds.ac.uk.

AUHE Seminars Series

10th December 2019

David Epstein

University of Grenada

“Beyond the cost-effectiveness acceptability curve: The appropriateness of rank probabilities for presenting the results of economic evaluation in multiple technology appraisal”

AUHE Seminars are open to all and take place on Tuesdays from 1 - 2 pm.

More seminars will be announced later, see <https://medicinehealth.leeds.ac.uk/events> for full details .

Interactive Workshop on Calculating Transition Probabilities for Markov Models in R and Excel

David Epstein

University of Grenada

10am-12pm, 10th December
2019

The Academic Unit of Health Economics is pleased to welcome **David Epstein** from the **University of Grenada** to give an interactive workshop on how to calculate transition probabilities in multistate Markov models using R and Excel.

The event is **free** and **no registration is required**. Participants are asked to **bring a laptop** and to **pre-download Maxima**, available here: <http://maxima.sourceforge.net/>. **Advanced knowledge of the mathematical background is not required**.

Email e.j.d.webb@leeds.ac.uk for more details.

Seminar and Workshop with the extending the QALY project team

In February AUHE welcomed **Prof John Brazier**, **Dr Tessa Peasgood** and **Dr Clara Mukuria** from the University of Sheffield. They presented a seminar and workshop on the Extending the QALY (E-QALY) project, an exciting and internationally important project seeking to redefine how quality of life is measured in health. The event was very well attended, and everyone enjoyed hearing about the impressive progress that the team are making on the project.

AUHE PORTFOLIO: END-OF-LIFE CARE

AUHE has recently expanded their portfolio of projects in palliative medicine. Yorkshire Cancer Research have invested £1.4 million in a trial to investigate the effectiveness and cost-effectiveness of a primary care needs assessment tool to manage the needs of people with cancer in palliative care. The trial is a collaboration between the University of Leeds and the Wolfson Palliative Care Research Centre at the University of Hull.

David Meads is a co-investigator and will lead the economic evaluation. He is also lead health economist on other projects in this portfolio including the IMPACCT study (NIHR PGfAR evaluating pain management at the end of life) which will report soon and the ActMed (NIHR HS&DR project exploring access to medicines at the end of life) study.

Finally, in a new collaboration with the University of Sheffield and Marie Curie, **David Meads** and **Ed Webb** will evaluate a possible change in the Personal Independence Payments (PIP) policy for those at the end of life.

PHD NEWS: KATIE SPENCER

Katie is a Clinical Lecturer in AUHE, she splits her time between her role in Clinical Oncology at the Leeds Cancer Centre and her academic position in the AUHE and Leeds Institute of Data Analytics. Katie has just submitted a three year MRC funded Clinical Doctoral Training Fellowship investigating the cost-effectiveness of palliative radiotherapy treatments, assessing how these treatments are used across the English NHS and how novel treatments might be commissioned to ensure cost-effective implementation.



She is also working on a EuroQoL funded study assessing the role of longitudinal EQ-5D data to predict prognosis in advanced incurable cancer and also the collaborative HERO (Health Economics in Radiation Oncology) project between the Royal College of Radiologists and European Society of Therapeutic Radiation Oncology.

AUHE TEACHING

Bethany Shinkins taught on the MSc Evidence Based Medicine module "Diagnosis and Screening" at the University of Oxford, on February 6-8. On April 4, she presented at the Optima Investigator meeting at the British Library. Bethany also gathered with 60 other researchers at Jesus College Cambridge, on April 8-12, for the 2nd CanTest International School for Cancer Detection Research in Primary Care. At this event, Bethany led a health economics workshop for all of the junior faculty who do research in primary care diagnostics.

Judy Wright was an invited lecturer on the Nottingham Systematic Review Course 18-21 June 2019 organised by the Centre for Evidence-based Hand Surgery and Cochrane Schizophrenia Group, University of Nottingham. Judy ran workshops and lectured on literature search and reference management methods for systematic reviews.

David Meads, **Daniel Howdon** and **Bethany Shinkins** taught on the "Cost Effectiveness Modelling for HTA" course in Lucerne, Switzerland, on



Group photo from the Second CanTest School

June 24-28. This course served as an introduction to the concepts of health technology assessment and economic evaluations in health.

Chris Bojke was a tutor at the course "Analysing Patient-Level Data using Hospital Episode Statistics (HES)" organised by the University of York, which took place on July 8-10.

APPLIED HEALTH ECONOMETRICS GROUP

The Applied Health Econometrics Group is a collaborative initiative at the University of Leeds between the AUHE and the Leeds Institute for Health Sciences (LIHS). It was founded in 2011 and is led by **Dan Howdon**.

If you are interested in becoming a member or presenting in the modelling group please contact us or visit our [webpage](#).

AUHE International Collaborations

Alison Smith has been appointed as an expert/consultant for the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) Working Group on Test Evaluation and on the EFLM Task Group on Performance Specifications based on Outcome Studies (EFLM TG-PSOS).

Alison's main role within these groups will be translating and developing her PhD work in which she has been exploring methods for simulating the impact of test measurement uncertainty (i.e. systematic and random variation in test measurements) on downstream outcomes, such as clinical accuracy, clinical utility and cost-effectiveness.

A methodology review Alison completed on this topic has recently been accepted for publication in *Clinical Chemistry* (in press).

Alison's collaboration with the EFLM groups has resulted in plans to develop case studies over the next year exploring the type of methods used in her PhD, alongside the more traditional approaches to setting performance goals for tests in the laboratory. In addition, **she will visit other members of the TG-PSOS group based in Sydney** later in the year, to explore further potential future collaborations.

NEWS

Chris Bojke, Daliya Kaskirbayeva, Adam Martin, Daniel Howdon, Katie Spencer and John O'Dwyer had papers accepted at the Health Economists' Study Group (HESG) meeting at UEA in July.

Alison Smith and Pedro Rodrigues attended the MRC training workshop on Health Economics Plans (HEAPs) in Bristol, in February.

Silviya Nikolova attended the workshop "How can economic evidence be used to inform resource allocation decisions in social care?" in Birmingham, in March.

Bethany Shinkins and Paola Cocco attended a two-day course on "Essentials of Infectious Disease Modelling and Economic Evaluation", at the University of Bristol, on May 21-22.

Alison Smith was invited to present to the European Federation of Laboratory Medicine (EFLM) Task Group: Performance Specifications Based on Outcome Studies, in the 23rd European Congress of Clinical Chemistry and Laboratory Medicine in Barcelona, Spain in May.

David Meads gave a seminar at the Health Economics Research Unit, University of Aberdeen in May.

Florian Boele attended the Congress of the Oncology Nursing Society in Anaheim in April, as well as the 2019 Clinical Education Network Inaugural Symposium in Leeds in May.

Paul Kind and **Zhuxin Mao** took part in the 1st Asia Regional Academy Meeting of the EuroQoL Group in Guangzhou, China, on June 11-12.

Claire Mills attended the "The development and introduction of the Leeds Post-Extubation Dypshagia Screen" conference at the Leeds Teaching Hospitals. She also attended the "NIHR ICA Pathway: Clinical Doctoral Research Fellowship" conference at the UK Critical Care Research Forum, on June 6-7.

Adam Martin attended the Health Technology Assessment International's Annual Conference in Cologne, Germany, on June 15-19.

Natalie King attended the 10th International Evidence Based Library and Information Practice Conference in Glasgow, on June 17-19.

Paola Cocco and **Daliya Kaskirbayeva** had poster presentations at the Faculty of Medicine & Health Postgraduate Researcher Conference, on June 17.

Edward Webb, John O'Dwyer and **Sarah Abraham** all presented their work at the Patient Reported Outcome Measures Conference at Leeds Beckett University in June.

Alison Smith, Daliya Kaskirbayeva, Ruben Mujica-Mota, Edward Webb and **Zhuxin Mao** will present at the International Health Economics Association (iHEA) Congress in Basel, Switzerland, in July.

MAKE SURE YOU DON'T MISS...

2ND METHODS FOR THE ECONOMIC EVALUATION OF DIAGNOSTICS (MEED) RESEARCH FORUM

Following the success of the previous edition, the University of Manchester will host the 2nd meeting of the **Methods for the Economic Evaluation of Diagnostics (MEED) Research Forum**, on September 12, 2019. The main goal of the MEED Research Forum is to collaborate on the development of methods for economic evaluations of diagnostics.

This one-day event will be an opportunity for health economists working in test development and evaluation to showcase novel methods and ongoing research, network with researchers working in similar areas, and reflect on key priorities for future work.

Alison Smith (AUHE) is part of the organising committee, as well as Sean Gavan and Alexander Thompson (University of Manchester). They invite delegates working on methods related to the economics of diagnostics and tests to submit abstracts to the Research Forum. **Abstract submission ends on July 22, 2019. Registration** for the event is free and **will open**, online, on **July 29, 2019**.

Further details can be found here: http://research.bmh.manchester.ac.uk/healthconomics/newsandevents/events/MEED_2019.

RECENT SELECTED PUBLICATIONS

Alshreef, A., MacQuilkan, K., **Dawkins, B.**, Riddin, J., Ward, S., **Meads, D.**, Taylor, M., Dixon, S., Culyer, A.J., Ruiz, F., Chalkidou, K. and Edoka, I. 2019. Cost-Effectiveness of Docetaxel and Paclitaxel for Adjuvant Treatment of Early Breast Cancer: Adaptation of a Model-Based Economic Evaluation From the United Kingdom to South Africa. *Value Health Reg Issues.* 19, pp.65-74.

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Barber, S., Pavitt, S., **Meads, D.**, Khambay, B. and Bekker, H. 2019. Can the current hypodontia care pathway promote shared decision-making? *J Orthod.* 46(2), pp.126-136.

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Mishu, M.P., Peckham, E.J., **Wright, J.**, Taylor, J., Tirbhowan, N., Ajan, R., Al Azdi, Z., Stubbs, B., Churchill, R. and Siddiqi, N. 2019. Interventions for preventing type 2 diabetes in adults with mental disorders in low and middle income countries. *Cochrane Database of Systematic Reviews.* 2019(3), pCD013281.

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