Welcome

A very warm welcome to HEHTA’s summer newsletter. We have had a very busy few months here at HEHTA with exciting new research developments in Global and One Health as well as PhD success and other personal achievements. HEHTA team members presented a number of oral presentations on both methodological work and applied economic evaluations in clinical and population health at the European Health Economics Association (EuHEA) conference in Maastricht in July. HEHTA also welcomed two new members to the team, Dr Liu Zhaoyang and Dr Rafael Venson. Liu is HEHTA’s new One Health Economics Lecturer, a post affiliated with the University of Glasgow’s Environmental and One Health Economics Chair, Professor Nick Hanley, at the Institute of Biodiversity Animal Health and Comparative Medicine. Rafael, originally trained as a pharmacist, joined the team as a Trainee Health Economist and will be contributing to a range of projects across HEHTA’s portfolio. Other celebrations included the marriage of Dr Baba to her partner Andrew and Jim Lewsey’s promotion to Professor of Medical Statistics.

NIHR Global Health Research Group in arthritis led by HEHTA

Emma McIntosh, Professor of Health Economics, Health Economics and Health Technology Assessment (HEHTA), Institute of Health and Wellbeing (IHW), will lead the £2 million National Institute for Health Research (NIHR) Global Health Research Group on estimating the prevalence, quality of life, economic and societal impact of arthritis in Tanzania: a mixed methods study at the University of Glasgow.

As Director of the Global Health Research Group, Emma said, “In line with the remit of the NIHR call to support academic groups to expand into Global Health, this group represents an exciting new collaboration between the Universities of Glasgow and Newcastle and the Kilimanjaro Clinical Research Institute (KCRI) in Tanzania. Against a background of the ever-increasing burden of arthritis in low and middle-income countries, our Global Health Research Group aims to estimate the prevalence, economic, health and quality of life impact of arthritis in Tanzania.

With a focus on arthritis prevention and intervention development plans in the Tanzanian setting, our research will directly inform an area of significant unmet need in sub-Saharan Africa. We will also deliver teaching and training in the social sciences, including health economics methods, and train early/mid-career Tanzanian researchers and clinicians in conducting research.

Our research and training plans will not only contribute to the development of sustainable capacity for tackling a wider range of non-communicable disease problems in Tanzania but contribute to the existing research of Prof Iain McInnes who directs the Arthritis Research UK Centre of Excellence for Rheumatoid Arthritis (University of Glasgow). We very much look forward to developing a successful working relationship with our colleagues at KCRI to deliver this important research in addition to establishing a Tanzanian centre for excellence in social science research.”

More information on the recent awards by NIHR can be found here: www.nihr.ac.uk/funding-and-support/global-health-research/funding-calls/units-and-groups/outcomes.htm.
One Health Economics

HEHTA’s summer of 2018 has witnessed an exciting development in the research agenda, a move into One Health Economics. This exciting new field seeks to explore the connections among the health of humans, animals and the environment. This approach would give rise to pre-emptive and cost-effective measures intended to curb the outbreaks of cross-species diseases such as avian flu. The One Health approach has been enthusiastically promoted by the science and policymaking communities.

HEHTA’s Prof Emma McIntosh and the newly appointed lecturer Dr Zhaoyang Liu, have been contributing to the One Health component of a large-scale cross-country research project entitled Supporting the National Action Plan (SNAP) on Antimicrobial Resistance (AMR) in Tanzania. This project has recently secured an MRC research grant of over £3 million. Under the leadership of Glasgow University Prof Ruth Zadoks, the project has built a strong team of dedicated researchers from a variety of academic disciplines such as Medical, Veterinary and Life Sciences, Health Economics, and Environmental Economics. The project has attracted international collaborators from Tanzania and the US. The project will provide novel insights into socio-economic, cultural and biological drivers of AMR to identify and prioritise tractable levers of behaviour change in hospitals and communities that will alleviate the burden of AMR related illness in a low income setting. The project will phase in a wide range of research activities in the following three years, which will promisingly lead to high-quality outputs including academic publications and policy briefs.

Eliminating HCV in Scotland

Dr Kathleen Boyd and Francesco Manca from HEHTA, in collaboration with the University of Dundee and NHS Tayside, are currently working on a Hepatitis C Virus (HCV) screening project in Scotland. The aim of the project, entitled The Everyones HCV study, is to identify and assess the most cost-effective strategies for diagnosing HCV infection in ‘under diagnosed populations’ in Scotland. This work can help inform the Scottish Governments plans to achieve a hepatitis free Scotland.

Hepatitis C is a virus that can infect the liver. If left untreated, it can cause serious and potentially life-threatening damage to the liver over many years. While HCV is well spread around the country (it is estimated around 215,000 people in the UK have HCV), it is accepted that the majority of people infected with HCV are remain undiagnosed. As we now have curative direct antiviral agents against HCV, it is important that we develop new stratagems to identify and treat unidentified cases to reduce the significant morbidity and mortality associated with this silent killer and prevent further transmissions. The Everyones HCV study will assess various strategies for targeting specific populations at high risk of carrying HCV; such as prisoners, current and previous drug users and patients on opiate substitution therapy.

Based on data from various HCV screening strategies previously or currently applied across Scotland, HEHTA researchers will provide their statistical and health economics modelling knowledge to assess the most cost-effective mix of strategies to achieve population diagnosis. A review has identified 10 alternative screening strategies to analyse and compare. The outputs of the research has policy implications for Scotland, and the UK. In particular, it can inform the Scottish Governments on the most cost-effective strategies to achieve a hepatitis free Scotland.
Dr Claire Williams celebrated her graduation this year and is now working at Bristol University as a Senior Research Associate in Statistical and Health Economic Modelling.

Main picture: Dr Yiqiao Xin successfully defended her viva and will graduate later this year.

Right: Dr Rafael Venson joined HEHTA this year shortly after his PhD graduation. See our staff news for more information on our new team member.

PREDICTION MODELLING

In April five members of HEHTA attended a methodology day for prediction modelling for use in clinical medicine. The day was run by the Asthma UK Centre for Applied Research and was held at Edinburgh University.

The day began with sessions on study design for prediction models where we looked at statistical models, developing valid models and model evaluation. After lunch we looked at the potential of ‘big data’ to develop prediction models, including the advantages and disadvantages of using big data and using machine learning methods. This session ended with a question and answer panel. The last session of the day looked at implementing and evaluation clinical prediction models in practice.

This methodological day was felt by the attendees to be very beneficial, with practical advice and informative case studies.
**FOUNDATIONS COURSE 1-2 October 2018, Glasgow**

This is a two-day course providing an introduction to the principles and practice of decision modelling for economic evaluation in health. The course is a collaboration between the University of Glasgow and the Centre for Health Economics at the University of York.

**Who is the course aimed at?**
The course is aimed at health economists and those health professionals with experience of health economics who wish to develop skills and knowledge in decision analysis for purposes of cost-effectiveness analysis. It is designed for participants who are familiar with the basic principles of economic evaluation who wish to build, interpret and appraise decision models.

**ADVANCED COURSE 3-5 October 2018, Glasgow**

A three-day course focusing on advanced modelling methods for economic evaluation. This course is a collaboration between the University of Glasgow and the Centre for Health Economics at the University of York.

**Who is the course aimed at?**
The course is aimed at health economists and those health professionals with experience of health economics who wish to learn about recent methodological developments in cost-effectiveness analysis. It is designed for participants who are familiar with basic decision modelling who wish to learn how to use more advanced modelling methods. It is particularly suitable for those who have attended our Introduction to Modelling Methods for Health Economic Evaluation.

It is envisaged that participants in both the foundations and advanced courses will currently be undertaking modelling for health economic evaluation within the pharmaceutical and medical device industries, consultancy, academia or the health service.
Evidence Synthesis For Health Technology Assessment

This is a three-day workshop on the systematic review and synthesis of evidence regarding treatment effects. Now in its 8th edition, this course is continually being updated to include hot topics in the area. Course participants will gain hands-on experience of conducting pairwise and network meta-analyses, and an understanding of contextual issues through the analysis of case-studies.

The course is holistic in covering the whole process from the strategic analysis of the decision problem, through conduct of systematic reviews, to synthesis and interpretation of results. The faculty, which includes staff from reimbursement agencies and members of appraisal committees, have extensive practical experience of conducting synthesis and applying the results to real life problems.

Who is the course aimed at?
The course is designed for health technology assessment (HTA) practitioners, such as health economists, health service researchers and healthcare professionals who are interested in learning the key concepts involved in the design and undertaking of evidence synthesis in the context of HTA.

What are the learning objectives?
At the end of the course, through problem-based learning, participants should be able to:

• Design and conduct high quality systematic reviews
• Conduct appropriate pairwise and network meta-analyses using Stata and/or R
• Explore bias and heterogeneity
• Gain an awareness of the practical challenges in evidence synthesis

What will the course cover?
This course will explore the principles and the practice of conducting a systematic review and meta-analysis through a mixture of presentations from members of the faculty, together with hands-on computer-based exercises using Stata and/or R, and discussions of case studies.

For more information on any of our CPD courses visit our website or Email ihw-hehta@glasgow.ac.uk.
Four members of the HEHTA team attended the 12th European conference on health economics in Maastricht, Netherlands 11 to 14 July. The conference was well attended with almost 800 delegates taking part, 543 oral presentations were given and 155 posters were presented. Maastricht is a beautiful city, Netherlands’ most European city, with history dating back to Roman times. At the time of the conference André Rieu was holding a series of outdoor concerts in his, so our delegates were able to enjoy this wonderful evening entertainment too, albeit from behind the barriers!

Houra Haghpanahan gave an oral presentation on her work “Are Tobacco Control Mass Media Campaigns Effective and Cost-effective? A population level analysis”. Jose Robles-Zurita gave two oral presentations; “Economic evaluation of culprit lesion only PCI versus immediate multivessel PCI in acute myocardial infarction complicated by cardiogenic shock: the CULPRIT-SHOCK trial” and “From normal to overweight without noticing: a relative plausible explanation”.

Manuela Deidda gave an oral presentation on “Methodological challenges conducting economic evaluations alongside natural experiments: the Healthy Start Voucher case study”. And Nicola McMeekin gave an oral presentation on “Using conceptual models to unravel negative trial results: Analysis, interpretation and presentation”.

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EuHEA Conference 2018

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17th Biennial European Conference for the Society for Medical Decision Making (SMDM)

10th-12th June Dr Camilla Baba, Dr Claudia Geue and Dr Jose Robles-Zurita attended the European biennial SMDM conference in Leiden, The Netherlands. The conference focused on Personalised and Value-Based Care, both areas of keen interest here at HEHTA. The conference was a mix of presentations and workshops and was extremely well attended. All three gave poster presentations of their work:

- A Bayesian Approach to Explore and Improve Methodologies for the Identification and Estimation of Subgroup Effects in Clinical Trials
  Claudia Geue, PhD, Neil Hawkins, PhD, Richard Grieve, PhD, Jeremy Oakley, PhD, Monica Hernandez, PhD, James Carpenter, DPhil

- Economic Evaluation of Culprit Lesion Only PCI Versus Immediate Multivessel PCI in Acute Myocardial Infarction Complicated By Cardiogenic Shock: The Culprit-SHOCK Trial
  Jose Robles-Zurita, PhD, Andrew Briggs, DPhil, Zahidul Quayyum, PhD, Keith Oldroyd, MD, Uwe Zeymer, MD, Steffen Desch, MD, Suzanne de Waha, MD, Holger Thiele, MD

- Informing the Design of a New Preference Weighted Value Framework for Oncology: A Mixed Methods Approach
  Camilla Baba, PhD, Andrew Briggs, DPhil, Alison Lipitz-Synderman, PhD, Susan Chimonas, PhD, Anna Kaltenboeck, PhD, Emma McIntosh, PhD, Peter Bach, MD

Walk to the conference venue:
Sadly over the past few months HEHTA has had to say goodbye to two members of staff; Dr Caoimhe Ryan and Dr Mohsen Rezaemi Hemami. Caoimhe has gone on to work as a Research Fellow at the University of St Andrews and is due to start a lectureship with the University of Portsmouth whilst Mohsen is now based at the University of Exeter as a Research Fellow in Health Economic Modelling. Additionally, the six month study visit by PhD candidate Maurillio Souza Cazarim from the University of Sao Paulo came to an end he worked with Professor Olivia Wu and Dr Kathleen Boyd to develop his model for a pharmacoeconomic tool for decision making in the implementation of pharmaceutical care for hypertensive patients in the public health system. We will miss them all and wish them the very best in their new adventures!

HEHTA has been extremely fortunate to welcome two new members of staff: Dr Zhaoyang (Leo) Liu who is spearheading new One Health Economics research and teaching and Dr Rafael Venson who is a new trainee Health Economist. We did a five minute interview with each to get to know them!

ZHAOYANG (LEO) LIU

What attracted you to come to HEHTA?
HEHTA is a strong research institute at a world-leading university. I was impressed by the dedicated, collaborative and friendly work atmosphere at HEHTA. I was particularly enthusiastic about conducting research in One Health Economics at HEHTA, in collaboration with my line managers, Profs Emma McIntosh and Nicolas Hanley, and other extremely talented colleagues. I think One Health Economics is a nascent yet important field. There is considerable scope to develop innovative, important and interesting research agendas.

What’s your background? (i.e Are you new to Health Economics and HTA? Where were you based before?)
I was trained as an environmental economist at Cambridge. After that I worked on a cross-country research project jointly initiated by the Swedish Environmental Protection Agency and Peking University (China). One Health Economics is a highly pertinent yet new field to me. I am familiar with academic explorations of the connections among the health of humans, animals and the environment. But One Health Economics seeks to extend and formalise these endeavours into a self-contained field or even discipline. I am very keen to embark on this adventure.

Tell us one surprising thing about you (i.e. hobby we wouldn’t expect, previous awards, life experience, extreme sport)
I play football - although this is not an unusual hobby... I have a dog-although this may not be surprising either since I am an environmental person... It might be slightly uncommon to be a Chinese person that does not cook well...

RAFAEL VENSON

What attracted you to come to HEHTA?
Health economics happened in my life by accident in 2008, and I have been fascinated by the field since then. I became aware of HEHTA whilst I was working in the field, and particularly in 2013 after moving to Glasgow, when I researched about research groups in health economics. I was impressed by how active and growing HEHTA is and, after chatting with Professor Olivia Wu, I decided I wanted to be part of the HEHTA Team. Besides that I love Scotland and especially Glasgow.

What’s your background? (i.e Are you new to Health Economics and HTA? Where were you based before?)
I have a Bachelor of Pharmacy degree and I have always been fascinated by many different fields of Pharmacy. I started my career in a pharmaceutical company as an intern of regulatory affairs, but rapidly health economics became part of my life, and I joined a newly born research group in Brazil. In 2010 I changed my career to forensics, and worked in the field for around 8 years, three of them within the Police Force in my country. Now I am back to health economics, where I want to grow as a professional and develop my career.

Tell us one surprising thing about you (i.e. hobby we wouldn’t expect, previous awards, life experience, extreme sport)
During my experience in the Police I had all the training an actual police officer would have, including firearm training, which was quite interesting (and thankfully not useful). Besides that, I was responsible for the chemical analyses of biological and non-biological evidences from more than 2,000 crime-related cases, such as homicide, drug-facilitated sexual assault, and environmental crimes.
ANNUAL HEHTA AWAY DAY 2018

On 16th May 2018, the HEHTA team assembled for the Annual HEHTA Away Day at the Blythswood Hotel.

It was an opportunity for the team to socialise and hone their skills by participating in an academic writing workshop. Gillian Colhoun and Stuart Delves from the Invisible Grail led the workshop. The session commenced with a game where everyone shared the meaning of his or her names as an icebreaker.

The first half of the workshop centred on introducing the team to the influence of academic writing styles and exploring the difficulties that arise in writing for academic research. A crucial step was to recognise that our professional and personal writing run parallel to each other. Therefore, the session also included exercises like free writing about the day and applying newly gained skills in weaving stories based on the contents of HEHTA’s current projects.

After the delightful lunch and photography sessions outside in the sun, Neil Hawkins presented on the best approach to deal with information when writing academically and different ways to ensure more publication.

Another enjoyable exercise was writing Haikus, which has now led to our weekly #HaikuFridays tag on Twitter. The day concluded with a cocktail/mocktail master class and a pub-crawl to celebrate Robert Heggie’s birthday afterwards.

Overall, it was a day and perhaps a night to remember! The team demonstrated their appetite for learning and used this opportunity to improve themselves.

ANNUAL BARBECUE 2018

The HEHTA and Public Health research groups and their families got together to rejoice the barbecue season on 22nd June 2018. The garden was buzzing with lively voices praising the rare spell of sunshine in Glasgow and of course, introductions. The unique occasion provided everyone with an avenue to let their hair down and bond with each other- even our canine friends. Even the post-graduate students stayed on until the end to enjoy the Friday ‘tipple’! This great evening would not have been possible without the efforts of the hosts Prof. Olivia Wu and Dr Danny Mackay. Our PGT Administrator, Margaret Ashton and her team did a marvellous job of organising the barbecue. Thank you to Prof. Ewan Macdonald and his ‘grill’ skills as everyone gushed about the delightful food. Last but not the least, a big thank you to all the family members who made the occasion special.

PROMOTION

Jim Lewsey has been promoted to Professor of Medical Statistics. Jim has been with the University of Glasgow since 2007 having joined Public Health as a Research Assistant working on an epidemiology of stroke project.

Also in staff news one of our own got hitched!

Massive congratulations to Camilla and Andrew who tied the knot this June!
Wu O., HTA of alternative and traditional medicines. HTAsiaLink, Thailand May 2018.

Briggs A Long-term Consequences of Clinically Important Deterioration in Patients with Chronic Obstructive Pulmonary Disease Treated with Twice-Daily Inhaled Corticosteroid/Long-Acting [2-Agonist Therapy: Results from the TORCH Study. San Diego, USA May 2018.


