Welcome

In this summer edition we showcase a number of events and developments in HEHTA. We recently launched our new theme ‘The Economics of Precision Medicine’ led by Professor Neil Hawkins. HEHTA’s team were involved in trips to China and India with Eleanor Grieve attending a workshop in Xiamen, China to support the newly launched China HTA network and Jim Lewsey attending the Clinical Pharmacy Conference at the Manipal University in India. This edition also highlights presentations on our research developing economic evaluation methodology alongside natural experiments at a Natural Experiments symposium hosted by the MRC unit and featuring guest speaker, Professor Til Baernighausen from the University of Heidelberg in Germany. We report the latest GhESS seminar series speaker, Dr Matthew Franklin from ScHARR, Sheffield University who presented the Pleasant Trial. In March, HEHTA hosted Glasgow University’s Institute of Health and Wellbeing’s annual research Away day which ended with an inspiring talk on leadership by Oxford University’s Kathryn Bishop. Finally, HEHTA has seen the first run of our online CPD courses which have proved very successful and we have the brand new course on ‘Evidence Synthesis’ commencing in May.

We hope you enjoy reading this newsletter. For further details about HEHTA’s work or to contact us for more information please visit:

www.gla.ac.uk/researchinstitutes/healthwellbeing/research/hehta/

twitter.com/HEHTAGlasgow

LAUNCH OF NEW THEME
ECONOMICS OF PRECISION MEDICINE

To complement the University of Glasgow’s focus on precision medicine, exemplified by the opening of the Stratified Medicine Scotland Innovation Centre (a £20m collaboration between Academia, industry and the NHS), HEHTA has introduced a new research theme entitled ‘Economics of Precision Medicine’.

HEHTA marked the introduction of its new theme, which will be led by Professor Neil Hawkins, by hosting an afternoon workshop on Friday 20th January 2017, titled ‘Improving the focus of Precision Medicine: the role of Health Technology Assessment (HTA)’. The workshop comprised a series of talks given by invited speakers including Professor Dame Anna Dominiczak, Vice Principal and Head of College of Medical, Veterinary and Life Sciences, Professor Iain McInnes, Professor of Experimental Medicine, Director of the Institute of Infection, Immunity and Inflammation, Professor Richard Barker OBE, Director of the Centre for the Advancement of Sustainable Medical Innovation (CASMI) and Chairman of the Precision Medicine Catapult, and Dr Paula Lorgelly, Deputy Director, Office of Health Economics.

Discussion focussed on the opportunities and challenges associated with precision medicine, the economics of precision medicine, and the role of health technology assessment in aiding decisions regarding study design and investment.
Clinical Pharmacy Conference, Mangalore

Jim Lewsey attended the CPCON conference which this year was hosted by Manipal University, Mangalore, India. Jim’s presentation was titled “Catalyzing the changes in Healthcare practices”. He found time to explore the sights of Mangalore, with some of the students as tour guides.

Jim with Prof MK Unnikrishnan (in University of Glasgow tie!) and some of the students he taught at the Clinical Pharmacy conference.

CPD courses

This year has seen the first run of our online CPD courses, which have proved very successful. These include:

- Statistical methods for HTA and evidence based medicine
- HTA in a global context
- Foundations of Decision Analytic Modelling
- Health Economics for HTA
- Analysis of linked health data
- Evidence Synthesis

For further details on the next run of all our courses, please see http://bit.ly/29rj4Gk

*Places still available on our Decision Analytic Modelling Methods courses which take place in Glasgow from 25-29 September. Full details at above link.

Guest seminar

Eddie Blair from Integrated Medicines Ltd gave a seminar on 24 February titled ‘Beyond economic value: putting patients at the centre of precision healthcare’

iDSI HTA workshop: knowledge sharing event to support newly launched China HTA network

A two-day workshop was held in Xiamen, China in February to support the newly launched China HTA network. Building on the launch of the China Health Policy and Technology Assessment Network last December, the China National Health Development Research Center (CNHDRC) hosted this event - marking the network’s consistent progress towards evidence-informed healthcare in China as well as building capacities for China’s HTA network.

The knowledge sharing event revolved around 6 main themes: standardised methods for economic evaluation, non-budget constraints and health system strengthening, measuring HTA impact and return on investment, HTA and medical devices, economic evaluation modelling and public health, and adapting HTA to the Chinese context.

Eleanor Grieve from HEHTA talked about developing a theoretical framework for assessing the impact of HTA and the return on investment.

The workshop provided a welcome opportunity for new collaborations between Chinese HTA specialists, UK researchers, and colleagues from neighbouring countries.

For more information, see here:


Two members of HEHTA presented at a symposium on natural experiments hosted by Peter Craig of the MRC/CSO Social and Public Health Sciences Unit on 28 March 2017. This symposium had been timed to capitalise on a visit from Professor Till Baernighausen from the University of Heidelberg in Germany, a leading expert on the use of quasi-experiments in health research. The HEHTA presentations were:

- Janet Bouttell, who examined the potential of the synthetic control method to evaluate alcohol interventions in Scotland, and
- Manuela Deidda introduced some collaborative methodological work to standardise the approach to economic evaluation alongside natural experiments and drew on analogy with the methodology being pieced together akin to Frankenstein’s monster.

Professor Baernighausen later presented his work on quasi experiments at the Institute of Health and Wellbeing’s Maurice Bloch lecture.

GhESS (Glasgow health Economic Seminar Series)

HEHTA welcomed Matthew Franklin from ScHARR on 20 April when he presented on ‘Economics Evaluations Alongside Efficient Study Designs Using Large Observational Datasets such as Clinical Practice Research Datalink (CPRD) provide opportunities to conduct clinical studies and economic evaluations with efficient designs. The study objectives were to report the economic evaluation methodology for a cluster randomised controlled trial (RCT) of a UK NHS-delivered public health intervention for children with asthma that was evaluated using CPRD (the PLEASANT trial) and describe the impact of this methodology on results. However, this presentation will focus on the methodological aspects of the study rather than the results of the trial.

PATHway

Andy Briggs, Claudia Geue, Jose Robles-Zurito and Moira Aitken hosted the Consortium meeting of the EU Horizon 2020 project ‘PATHway (Technology enabled behavioural change as a pathway towards better self-management of CVD)’ at the University of Glasgow on 4th and 5th April 2017. The project, now in its third year, brings together 11 partners from 7 European countries and combines academic and technical expertise to develop and evaluate an internet-enabled, sensor-based home exercise platform that allows remote participation in Cardiac Rehabilitation exercise programs. Two full days of discussion focussed on finalising the development of the system and preparing for the forthcoming randomised controlled trial. www.pathway2health.eu/
New MRC Funded Research

We have recently received funding from the MRC for a Project entitled “Development of a fully Bayesian framework for the identification and estimation of subgroup effects in Randomised Controlled Trials”.

Individual and population health can be improved by reliably and accurately identifying which treatments have the most favourable risk-benefit or cost-effectiveness ratios for individual patients based on observed characteristics(1). Such targeting of treatment has been described as stratified, precision or personalised medicine and is summarised as ‘the right treatment, for the right person, at the right time’ and is underpinned by subgroup analyses of randomised control trials (RCT). Although the idea of basing treatment decisions on subgroup analysis is attractive, there is the fundamental problem of multiplicity. This occurs when same data are used both to decide which subgroup effects are real, rather than the result of random chance, and to estimate their magnitude. Multiplicity can lead to biased and over-precise estimates of the overall effectiveness and harm of treatments, and to false identification of subgroups where treatments are of particular benefit (or harm). This can lead to individual patients suffering harm, and the waste of scarce resources on ineffective treatments and futile confirmatory trials.

Despite the importance of accounting for the effects of multiplicity, a recent review of pharmacoeconomic guidelines reported “a lack of consensus on specific methods to acknowledge patient heterogeneity”. It has been suggested that the efficiency of public health care systems can be increased by considering finer subgroup definitions. However, reliable methods of subgroup analyses are required in order to realise the potential gains from stratified medicine.

In this project we will develop a fully Bayesian framework, including the expert elicitation, for subgroup analysis. We will develop and refine guidance for the application of the framework through a series of ‘live’ case studies and simulations. The guidance will cover i) the planning of a clinical trial; ii) the consideration of further studies based on the results subgroup analysis; and iii) the analysis of trial data to inform reimbursement though health technology assessment.

The framework will build on existing statistical models for subgroup analysis and will include shrinkage estimation and mixture components. The model will be hierarchical and allow information on subgroup effects to be “shared” across studies and endpoints. It will also allow for inclusion of informative, subgroup specific, priors based on the elicitation of expert judgement from clinicians regarding the prior plausibility of subgroup effects.

Contact Professor Neil Hawkins for more details
Neil.Hawkins@glasgow.ac.uk

---

IHW Research Away Day 2017 Public Engagement

This year’s IHW Research Away day was held on 21st March 2017 at the Grosvenor Hilton Hotel in Glasgow. There were over 170 delegates registered for the day and the programme was packed full. April Logan from Glasgow University Sports Association kick-started the day with a motivational warm up session followed by IHW theme leads reporting updates on the institute’s new themes ‘determinants of Health and Health Inequalities’, ‘Data Science’ and ‘Solution-focused Research’.

Elizabeth Adams and Denis Fischbacher-Smith presented an excellent session on research integrity prior to Michelle Burman’s informative presentation on ‘How to write a 4* paper’. Kirstin Mitchell reported the results of the staff survey, revealing the IHW to be an excellent place to work across all categories. Following lunch and public engagement exercises from some of the research groups the afternoon sessions comprised an ECR mini-conference with Dr Catherine Stewart being awarded the prize for the best paper. Following the mini-conference, Rory O’Connor provided a summary of the IHW mentoring scheme. Rounding off the day was an inspirational talk titled ‘Your Leadership Choices’ by Kathryn Bishop from the Said Business School at the University of Oxford. Kathryn closed the day with a superb analogy of leadership and the decisions made by the famous pilot ‘Sully’ when he landed his US American Airline plane on the River Hudson. Overall the day was very highly rated in the feedback received across the board.

Emma McIntosh, Kathryn Bishop, Olivia Wu

Getting motivated!
We welcome Sermsiri Sangroongruangsri (Ning), a PhD student from Thailand currently studying in the Faculty of Pharmacy at Mahidol University. Ning’s PhD project involves assessing safety profiles of the off-label bevacizumab versus ranibizumab in the treatment of retinal diseases using real-world data. This project was proposed after inclusion of bevacizumab into the National list of essential medicines for treating neovascular age-related macular degeneration (nAMD) and diabetic macular edema (DME). This prospective observational study was conducted in collaboration with the Health Intervention and Technology Assessment Program (HITAP) and retinal specialists from eight leading hospitals in Thailand.

Ning will be with HEHTA for three months as a visiting postgraduate research student under the supervision of Professor Olivia Wu and Dr Claudia Geue.

Unfortunately we’ve recently said goodbye to some colleagues. Willings Botha who had been with HEHTA for three years whilst undertaking his PhD on the economics of forestry-based interventions; Dr Hannah Hesselgreaves who was with HEHTA for two years as a Lecturer in Qualitative Methods for Health Research and Jennie Clark who has also been with HEHTA for 2 years as an Administrative Assistant. We wish them all the very best in their future ventures.

The Senate Induction took place on 13 April for Professors Olivia Wu and Emma McIntosh.

The race is on!

Three teams from HEHTA and Public Health are taking part in the Step Count Challenge organised by Paths for All. The aim is to get people walking more in their day-to-day lives, by logging daily activity such as walking, cycling and swimming between 1 May and 25 June. With some fiercely competitive individuals involved, it’s going to be an interesting eight weeks! Follow our progress on Twitter @HEHTAGlasgow.

It’s been a busy time for “big birthdays” here at HEHTA. Janet Bouttell cerebrated her 50th and one week later Robert Heggie celebrated his 30th. Lots of cake and candles!
Launch of MOOC

Exciting news, we are very proud to announce that HEHTA are starting to film for their upcoming ‘Introduction to HTA’ MOOC this month! This 3 week course will be launched on Futurelearn this summer ahead of our MSc intake this September. The MOOC will take an interactive approach, focussing on activities to teach participants what HTA is, its role in aiding decision-makers and some of the exciting work we are doing here at HEHTA. If you would like more information please get in touch!

Public Engagement Events

HEHTA participated in the University of Glasgow Research staff conference at the Kelvin Hall, Glasgow on 12th May.

The public engagement team also ran a successful session at The Glasgow Academy on 23rd May which will give children from Primary 3 to 4 a taste of the decision-making processes involved in health economics.
Publications


Presentations

Jim Lewsey, ‘Catalysing the changes in healthcare practices’, CPCON conference, Manipal University, Mangalore, India. 20-21.1.17

Kathleen Boyd, poster presentation ‘ADSCaN: A Randomised Phase II study of Accelerated, Dose escalated, Sequential Chemo-radiotherapy in Non-Small Cell Lung Cancer (NSCLC)’, 15th annual BTOG (British Thoracic Oncology Group) Conference 2017, Dublin, Ireland. 25-27.1.17

Andy Briggs, ‘Designing a value framework for oncology: what are the issues with existing frameworks and can we do better?’, National Cancer Institute: The Cancer Prevention & Control Colloquia Series, New York. 24.1.17

Andy Briggs, ‘Developing a theoretical framework for assessing the impact of HTA and the “return on investment” HTA China Network IDSI workshop, Xiamen, China. 21-22.2.17

Houra Haghpanahan, ‘Can TV mass media campaigns lead to change in smoking behaviour in Scotland? A structural vector autoregression analysis’, Society for Research on Nicotine & Tobacco (SRNT) – 2017 annual meeting, Florence, Italy. 8-11.3.17

Janet Boottell, ‘Synthetic control methodology as a tool for evaluating population-level health interventions’, Natural Experiments symposium 2017, Glasgow. 28.3.17

Manuela Deidda, ‘Conducting economic evaluations alongside natural experiments: a practical guide’, Natural Experiments symposium 2017, Glasgow. 28.3.17

Janet Boottell, ‘The use of the synthetic control method to assess the impact of the Alcohol (Scotland) Act 2010 on off-trade alcohol sales’, NHS Health Scotland – Capacity building session on synthetic control method, Glasgow. 3.4.17