Welcome

In this autumn edition we present HEHTA’s numerous events and research developments. The last months have seen HEHTA successfully host a symposium on economic evaluation of complex interventions generating new ideas for an evolving research field. September saw team members at HEHTA design another highly successful public engagement event with a second appearance at the EU Researchers night Explorathon event held at the Riverside museum. Dr Jim Lewsey and Dr Camilla Baba led the creation of the team’s first MOOC course, attracting over 1100 students.

All in all it has been a hectic few months for staff here at HEHTA as you will read. The team has also gained some new staff members, celebrated a new baby, and a promotion, as well as a new CSO grant.

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/

Also – if you are attending ISPOR Glasgow this November please visit us at stand 106 in the exhibitor’s hall.

COMPLEX INTERVENTION WORKSHOP

On 31st August HEHTA hosted a symposium addressing an increasingly important issue in health economics – the economic evaluation of complex interventions. The symposium aimed to generate new thinking and stimulate fresh discussion on the topic by drawing on existing examples of complex interventions with insights from welfare economics, behavioural economics and recent developments in economic modelling methods. After opening words from Emma McIntosh (HEHTA), Peter Craig (MRC) gave a comprehensive overview of current thinking regarding the development and evaluation of complex interventions. Manuela Deidda (HEHTA) and Kathleen Boyd (HEHTA) followed with practical examples of economic evaluation in complex interventions, discussing key challenges and offering tips. Sayantan Ghosal (Adam Smith Business School - pictured) offered insights from welfare economics, Nick Hanley (St Andrews) considered the role of behavioural economics in the evaluation of complex interventions, and Vittal Katikireddi (MRC) addressed the role of health economists in the evaluation of health and social policies. The event featured lively discussion of critical challenges, important considerations, and future directions for the field. A publication from the event is planned.
Dr Jim Lewsey and Dr Claudia Geue were successful in obtaining Chief Scientist Office 2-year grant funding to develop, validate and assess the performance of a Scottish Type 2 diabetes policy model. Additionally, the project will design and develop a web-based decision aid ‘dashboard’ for real-time modelling by policy-makers, clinicians and patients. This work will begin in late 2017.

Jim participated in a two-day workshop hosted by the Health Intervention and Technology Assessment Program (HITAP) group, Ministry of Public Health, Thailand. On day 1, Jim provided advice on developing alcohol economic models for informing policy making within Thailand. This builds on the research Pattara Leelahavarong undertook for her PhD with HEHTA. On day 2, Jim led an interactive teaching session which covered the topics ‘Essential statistical methods for HTA’, ‘Non-randomised comparative effectiveness: case-studies’ and ‘Partitioned survival analysis’, with participants able to produce and interpret statistical output from R syntax.”

Jose Robles-Zurita (Research Associate) attended the 37th HEALTH ECONOMICS CONFERENCE in Barcelona, Spain, on 6 – 8 September 2017, hosted by the Pompeu Fabra University. The theme of the conference was “science for action” and was coordinated with the annual scientific meeting of the Spanish Epidemiological Society by dealing with issues with cross-cutting interest. Jose had the opportunity to give two presentations:

- Cost-effectiveness of 3 vs. 6 months of adjuvant chemotherapy in colorectal cancer: the short course oncology therapy study
- From normal to overweight without noticing: a relative plausible explanation
In September, HEHTA once again ran this hugely popular course, which took place over 5 days with the first two days being the Foundation level and the final three days comprising the advanced level. Delegates can choose to attend one or both of the courses. Around 100 delegates attended over the course of the 5 days. Pictured below are students Melanie, Fatim and Rodrigo attending as part of our MSc HTA course.

Over the course of the week a number of social events are organised. Pictured left are some of the delegates enjoying the Advanced course dinner in the stunning Oran Mor Venue.

Introduction to HTA MOOC
August saw the launch of HEHTA’s 3 week MOOC with futurelearn. The course sought to give participants an overview of what HTA is, how it is conducted and the complex questions that it seeks to answer. The course organisers’ and educators were HEHTA’s Dr. Jim Lewsey and Dr. Camilla Baba, who worked extensively with the university’s digital education team to develop and design the course. Over the 3 week course, learners were first introduced to the underlying principles of HTA and the key stages of the HTA process before being faced with their own priority setting activities. Case studies of work conducted here at HEHTA were used through a number of videos and interactive activities, all which generated extensive discussion.

The feedback was very positive: “I definitely increased my understanding of HTA”, “I found this course interesting as I knew nothing about HTA even though I knew...such process existed”, “I loved the mix of teaching methods, especially the use of case studies”.

The course attracted over 1100 students worldwide. The course will be running again over the next year, please see the following site for details and a video introduction: www.futurelearn.com/courses/health-technology-assessment
Recent months have seen a number of PhD successes. Dr Camilla Baba (bottom left) graduated and has continued her work as a researcher here at HEHTA. Willings Botha successfully defended his thesis, many congratulations to him. He is pictured right with his supervisors Prof. Andrew Briggs (HEHTA) and Prof. Richard Mitchell (MRC/CSO SPHSU). In addition, both Claire Williams and Nicki Boyer have submitted their theses (top left) and will be defending their work at their vivas in the coming months.

We are also delighted to announce that Dmitry Ponomarev had become the first MVLS Online Distance Learning student to pass an MSc. He successfully completed the MSc HTA course and is now working with NICE on placement in Manchester. Another MSc student, Evidence Nyamadzawo (left), received the Jill Sanders Memorial Scholarship Award from Dr Sean Tunis President of @HTAiOrg.

Pattara Leelahaverong returned from Thailand to successfully defend her Thesis and will graduate later this year. Pattara is pictured below, celebrating with the team.
Health Economics and Health Technology Assessment (HEHTA) were very pleased to demonstrate the PATHway system at Explorathon ’17, in Glasgow’s Riverside Museum on Friday 29th September, as part of European Researchers’ Night 2017. PATHway: “Technology enabled behavioural change as a pathway towards better self-management of CVD” (PI Andrew Briggs) is co-funded by the Horizon 2020 Framework Programme of the European Union. The project aims to develop an internet-enabled, sensor-based home exercise platform that allows remote participation in Cardiac Rehabilitation exercise programs from home. PATHway will provide individualized rehabilitation programs that use regular, socially inclusive exercise sessions and games as the basis upon which to provide a personalized, comprehensive lifestyle intervention program (managing exercise/physical activity (PA), smoking, diet, stress management, alcohol use etc.) to enable patients to both better understand and deal with their own condition and to lead a healthier lifestyle in general.

Visitors of all ages were keen to try out the PATHway demonstration. In addition, the public were also invited to evaluate the intervention with a ‘willingness to pay’, question. Over 200 members of the public visited the stand throughout the course of the evening, stimulating lots of discussion and debate.

Dr Jeremy Teoh from the University of Hong Kong’s department of surgery where he is an assistant professor specialising in urology visited HEHTA for two weeks in September. During his visit he attended the decision analytic modelling for economic evaluation course and then collaborated with members of the team to start conceptualising the possibility of applying discrete choice experiment methodology to his work in urology. This particularly focussed on how the advantages and disadvantages of alternative treatment options are valued by current patients. Dr Jeremy summarised his visit to Glasgow with a presentation to the HEHTA team regarding what he had learned on his visit. He spoke of the lack of HTA in priority setting in Hong Kong and how the methods he learned during his time here would be applied to his work back home. As an example, he described how a recent decision to invest in robot-assisted prostate surgery was taken without due consideration of the cost-effectiveness associated with such an intervention and the necessary opportunity cost associated with alternative treatments forgone. He also discussed a project of his own involving the introduction of the Prostate Health Index as a follow-on test after Digital Rectal exam and PSA test to avoid unnecessary biopsies. This is work which will involve using the methods he learned on the DAMEE course and is something Jeremy and colleagues here at HEHTA are looking to collaborate on in the future.
We are delighted to welcome two new members to the team. Fernando Zanghelini and Ping-Hsuan Hsieh (Shawn.)

We welcome Ping-Hsuan Hsieh (Shawn), new PhD student from Taiwan. Shawn used to be a military pharmacist in Tri Service General Hospital and received his MSc degree in Multidisciplinary Long-term Care in Taiwan. Shawn’s PhD project involves assessing economic burden of patients with rheumatoid arthritis (RA) by using patient-reported data and linked healthcare resources data. This project is in collaboration with the Scottish Early Rheumatoid Arthritis (SERA) cohort study, which is a multicentre, prospective study of patients with newly presenting RA or undifferentiated arthritis in Scotland. Shawn will be with HEHTA for 4 years under the supervision of Professor Olivia Wu, Professor Emma McIntosh and Dr Claudia Geue. Shawn will be with HEHTA for 4 years under the supervision of Professor Olivia Wu, Professor Emma McIntosh and Dr Claudia Geue.

I am Fernando Zanghelini, a PhD student in Therapeutic Innovation at the Federal University of Pernambuco (Brazil). I am a visiting postgraduate research student at the University of Glasgow. My research project aims to determine the cost-effectiveness of early palliative care in terms of cost-save, improved quality of life, and survival of patients with advanced cancer. This project was proposed regarding the need to increase the certainty of evidence and to guide health professionals and policymakers to better decision making. The study was conducted in collaboration with Health Economics and Health Technology Assessment (HEHTA) in Glasgow under the supervision of Professor Olivia Wu.

Andrew Davies joined HEHTA this summer as a Senior Research Fellow. Andrew is leading a small team within HEHTA who are reviewing submissions to SMC, which HEHTA have been invited to evaluate.

Laura Wood recently joined the admin team on secondment. Laura has worked at University Sport for several years and will be a welcome addition to the admin team focussing on finance administration.

It was a momentous and eventful time for Nicki Boyer who has been a researcher with HEHTA since 2014. Firstly, Nicki celebrated her 30th birthday in the summer and a few weeks later we had to say goodbye as she moved back to the USA to await the birth of her first child. Baby Amelia Dominique Soldner Boyer was born on 15th October and the HEHTA team made a video to send their congratulations to Nicki and Marc.
Dr Kathleen Boyd was recently promoted to Senior Lecturer. Kathleen has been with HEHTA since 2007 when she started her career as a junior researcher. WELL DONE AND VERY WELL DESERVED KATHLEEN.

The institute of Health and Wellbeing took part in MacMillan’ World’s biggest Coffee morning and HEHTA staff were well represented in both baking and consuming of fabulous and indulgent baked goodies. A total of £523.76 was raised! Our own Nicola McMeekin was awarded “star baker” with her winning healthy orange polenta yoghurt cake.

Olivia Wu recently met up with former HEHTA team members Noppcha Singweratham, Pattara Leelahaverong and Panida Yoopetch a former MSc Student.
//SATURDAY 4th NOVEMBER

**SHORT COURSES**

**DEVELOPMENT OF CONCEPTUAL MODELS**
Neil Hawkins PhD; Mark S Roberts MD, MPP; Elizabeth Fenwick; PhD, MSc, Paul Tappenden PhD, MSc, Beth Woods MSc.

**META-ANALYSIS & SYSTEMATIC LITERATURE REVIEW**
Olivia Wu, PhD; Neil Hawkins, PhD

**STATISTICAL METHODS FOR PHARMAECOENOMICS AND OUTCOMES RESEARCH**
James Lewsey, PhD; Gerd K Rosenkranz, PhD

**COLLECTING HEALTH-STATE UTILITY ESTIMATES FOR ECONOMIC MODELS IN CLINICAL STUDIES**
Wolowacz S, PhD; Andrew Briggs, DPhil, MSc; Andrew Lloyd, DPhil; Lynda Doward, MRes

//SUNDAY 5th NOVEMBER

**SHORT COURSES**

**UNDERSTANDING SURVIVAL MODELING WITH APPLICATION TO HTA**
Andrew Briggs, DPhil, MSc; Christopher Parker, MSc; Andrew Davies, MSc; Gemma Kay

**INTRODUCTION TO THE ECONOMIC ANALYSIS OF DIAGNOSTICS**
John E. Schneider PhD, Andrew Briggs DPhil,MSc.

//MONDAY 6th NOVEMBER

**PODIUM PRESENTATIONS**

**A FRAMEWORK FOR THE COST-EFFECTIVENESS ANALYSIS OF NOVEL BIOMARKER TESTING IN CARDIOVASCULAR DISEASE**
Kohli-Lynch CN, Boyd K, Briggs A, Delles C.

**THE EFFECTIVENESS AND COST-EFFECTIVENESS OF TOBACCO CONTROL MASS MEDIA CAMPAIGNS IN SCOTLAND FOR 7 YEARS**
Haghpanahan H, Boyd K, Mackay DM, McIntosh E, Pell JP, Haw S.

**POSTER PRESENTATIONS**

**AN ECONOMIC EVALUATION OF DELIVERING ASSISTED LIVING LIFESTYLES AT SCALE (DALLAS)**
Baba C, Grieve E, Mcintosh E.

**COST-EFFECTIVENESS OF NIVOLUMAB (NIVO) COMBINED WITH IPILIMUMAB (IPI) COMPARED WITH NIVO AND IPI MONOTHERAPIES IN THE FIRST-LINE TREATMENT OF ADVANCED MELANOMA IN THE UNITED STATES: ANALYSIS USING 28-MONTH OVERALL SURVIVAL (OS) DATA FROM CHECKMATE 067.**

**THE VALIDITY OF OBJECTIVE RESPONSE RATE AS A SURROGATE FOR PROGRESSION-FREE AND OVERALL SURVIVAL IN THE EVALUATION OF FIRST-LINE CHEMOTHERAPY FOR ADVANCED NON-SMALL CELL LUNG**

//TUESDAY 7th NOVEMBER

**PLENARY SESSION**

**APPRASING THE APPRAISERS: WHAT IS THE FUTURE OF HEALTH TECHNOLOGY ASSESSMENT IN EUROPE?**
Moderator: Andrew Briggs, DPhil, MSc. Speakers: Susan Guthrie, PhD, MSc; Nicola Allen, PhD; Zoe Garrett, MPhil, MRes.

**EDUCATIONAL SYMPOSIUM**

**PRACTICAL IMPLICATIONS OF VALUE-BASED PRICING AND EMERGING VALUE FRAMEWORKS IN HEALTH TECHNOLOGY ASSESSMENT**
Moderator: Jay Jackson, PharmD, MPH. Speakers: Andrew Briggs, DPhil, MSc; Ansgar Hebborn, PhD; Ken O’Day, PhD, MPA
WORKSHOP
DETERMINING THE VALUE OF LONG TERM OUTCOMES ASSOCIATED WITH IMMUNO-ONCOLOGY THERAPIES - CHALLENGES AND APPROACHES FOR OS EXTRAPOLATIONS.
Discussion Leaders: Yiduo Zhang, PhD; Pralay Mukhopadhyay, PhD; Andrew Briggs, DPhil, MSc; Nicholas Latimer, MSc, PhD.

POSTER PRESENTATIONS
BUT WILL THEY TRADE HEALTH? DEVELOPING AN ECONOMIC VALUE FRAMEWORK FOR ONCOLOGY
Briggs A, Baba C, Lipitz-Snyderman A, Kaltenboeck A, Mcintosh E, Bach PB.

HOW SHOULD WE TEST FOR PRE-TERM LABOUR? AN ECONOMIC MODEL AND COST-EFFECTIVENESS ANALYSIS
Heggie R, Boyd KA, Stock S, Bruijn M.

COST-EFFECTIVENESS OF MECHANICAL THROMBECTOMY COMPARED WITH STANDARD TREATMENT IN PATIENTS WITH ACUTE ISCHAEMIC STROKE

COST-EFFECTIVENESS OF STATIN PRIORITISATION BASED ON ABSOLUTE RISK REDUCTION FOR PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE

LONG-TERM BENEFITS OF LDL CHOLESTEROL LOWERING IN YOUNG ADULTHOOD: A COMPUTER SIMULATION STUDY
Kohli-Lynch CN, Moran AE, Thanataveerat A, Pletcher MJ, Vittinghoff E, Singh S.

ECONOMIC EVALUATION OF SINGLE INHALER TRIPLE THERAPY FOR PATIENTS WITH CHRONIC OBSTRUCTIVE COST-EFFECTIVENESS OF INTELLIGENT LIVER FUNCTION TEST (ILFT) FOR INVESTIGATING PATIENTS WITH ABNORMAL LIVER FUNCTION TEST
Rezaei Hemami M, Boyd KA, Inglis SK, Dow E, Dilon JF.

CAPTURING PATIENT PERSPECTIVES IN THE EVALUATION OF MEDICAL DEVICES: THE CASE OF CENTRAL VENOUS ACCESS DEVICES IN CHEMOTHERAPY
Ryan C, Wu O.

PULMONARY DISEASE (COPD) USING THE GALAXY MODEL

//WEDNESDAY 8TH NOVEMBER

POSTER PRESENTATIONS
IDENTIFYING ATTRIBUTES OF CANCER TREATMENTS: WHAT DO STAKEHOLDERS CONSIDER?
Baba C, Briggs A, Mcintosh E, Lipitz-Snyderman A, Kaltenboeck A, Bach PB.

IDENTIFYING COST EFFECTIVE METHODS OF HEALTH TECHNOLOGY ASSESSMENT FOR DEVELOPERS – THE NEED FOR FAST AND FRUGAL EVALUATION
Bouttell J, Briggs A, Hawkins N.

DEVELOPING A CONCEPTUAL MODELLING FRAMEWORK FOR ECONOMIC EVALUATION
McMeekin N, Briggs A, Wu O.

A CONCEPTUAL MODEL OF THE ECONOMICS OF VISUALIZATION IN DIAGNOSTICS AND SURGERY
Schneider JE, Briggs A, Stojanovic I, Wall B.

TOO BROAD TO BE SENSITIVE? EXPLORING THE RESPONSIVENESS OF THE ICECAP-O CAPABILITY WELLBEING MEASURE COMPARED TO THE EQ-5D- 3L TO THE CHANGE OF CLINICAL AND QOL ASPECTS IN PEOPLE WITH PARKINSON’S
Xin Y, Lewsey J, Gray R, Clarke CE, Coast J, Rick C, Mcintosh E.