Contents

From the Director 5
Research 6-17
  Research themes 7
  Research spotlight 8-9
  Projects awarded 10
  Ongoing projects 11-13
  Projects completed 14
  PhD Focus 16-17
  Willings Botha 16
  Camilla Baba 17
Highlights of 2017 18-23
Teaching and Supervision 24-27
Continuing Professional Development 28-31
Publications 32-34
Presentations 35-37
Meet the Team 38-43
Interviews 44-45
  A week in the life of Emma McIntosh 44
  My visit to HEHTA – Jeremy Teoh 45
Membership of External Bodies 46-47
The past year has been a very exciting and busy period at the Health Economics and Health Technology Assessment (HEHTA) Research Group. It is my pleasure to present our sixth annual report, which provides a snapshot of our activities and major accomplishments in 2017.

We celebrated PhD graduations for Dr Camilla Baba and Dr Willings Botha, both of whom are now early career researchers, at HEHTA and the University of New South Wales, respectively. We also celebrated the promotion of Dr Kathleen Boyd to Senior Lecturer. Dr Boyd was one of our first recruits when the team was first established in Glasgow in 2006! Since joining the team, Dr Boyd has been committed to undertaking high-quality research – initially while juggling a PhD and now a recognised expert and our research theme lead in ‘Economic evaluations alongside clinical trials’. These are all fantastic personal achievements and well-deserved for their hard work.

Among our research and teaching activities, I would like to highlight a number of special events this year. I hope you will enjoy reading about our workshop on ‘Improving the focus of precision medicine: the role of HTA’, which marked the formal launch of our new research theme on ‘Economics of Precision Medicine’. We also successfully launched our first Massive Online Open Course (MOOC) in HTA, which was an excellent platform to teach and to discuss principles of HTA with a very diverse audience. Another special event is the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) 20th Annual European Congress that was held in Glasgow in November. The congress, co-chaired by Professor Andrew Briggs, proved to be a great opportunity for all team members to present their work and forge new collaborations. We will report on some of these new research collaborations at the next annual report.

Olivia Wu, Director
Health Economics and Health Technology Assessment (HEHTA)
Research themes

HEHTA’s work is centred around eight core and interconnected research themes.

Analysis of Linked Health Data (ALDA)
This programme encompasses all research in HEHTA that is associated with statistical, epidemiological and economic analysis of linked health data sets. Our team has a wealth of expertise and experience in this field – for example data manipulation and identifying cohorts within linked data sets; regression modelling of panel data sets; outcome measurement, costing and developing decision analytic models using linked data sets.

Decision Analytic Modelling and Simulation for Evaluation in Health (DAMSEL)
This programme involves research associated with conducting an evaluation using modelling or simulation methods. Modelling can be used as the whole framework for an evaluation, or as part of a clinical trial-based evaluation to extrapolate intermediate trial endpoints to final health economic outcomes. DAMSEL cuts across and interacts with many of the other themes of HEHTA.

Economics of Population Health (EPH)
This programme is concerned with the development of methods and related empirical work associated with the economic evaluation of population health interventions, including those that may be delivered outside conventional health services. The theme is particularly interested in the evaluation of ‘up-stream’ influences, such as early life experiences, the social and economic conditions in which people live and environmental exposures affect wellbeing.

Incorporating Perspectives and Experiences (IPE)
This programme aims to promote the use of qualitative approaches in HTA. Qualitative research can provide valuable insights into stakeholder perspectives, needs, and experiences, as well as contextual aspects of evaluations and HTA. Research in this programme focuses on the development and application of qualitative approaches to conceptual modelling, trial recruitment and design, developing measures, evidence synthesis, identifying attributes and levels for stated preference discrete choice experiments and process evaluation.

Evidence Synthesis (ES)
This programme comprises all research associated with combining multiple sources of evidence for clinical and economic evaluations in the context of HTA. Alongside the NIHR Complex Reviews Support Unit (CRSU), this programme explores challenges in combining complex data types and structure, through methodological and applied research.

Economic Evaluation alongside Clinical Trials (EEACT)
This programme includes all research associated with conducting an economic appraisal as part of a clinical trial. Although modelling methods may still be required to provide a comprehensive appraisal, the characterising feature is the inclusion of an economic component to the trial and the availability of experimental data on both costs and effects of treatment.

Global HTA (GHTA)
This programme critiques HTA in different contexts, exploring variation between high-income countries as well as looking in-depth as to how and why decision making in healthcare may differ amongst low- and middle-income countries (LMICs). The theme draws upon HEHTA’s research from a global perspective, working with major stakeholders and as part of the International Decision Support Initiative.

Economics of Precision Medicine (EPM)
This is HEHTA’s newest programme and directly aligns with the College of Medical, Veterinary and Life Sciences (MVLS) role as one of the six regional centres of excellence created by the Precision Medicine Catapult. The EPM programme focuses on understanding of the ‘strata’ of responses and the genetics of the diseases, and effective and cost-effective forms of treatment for different patient groups, methodologically unpinned by subgroup analyses. In addition, we are investigating the implications of precision medicine for study design and technology pricing.
Research spotlight

BEAT-IT: A randomised controlled trial comparing a behavioural activation treatment for depression in adults with learning disabilities with an attention control.

Funder: National Institute for Health Research

Background
BEAT-IT was a multi-centre, single blind, randomised controlled trial comparing behavioural activation (BEAT-IT) to guided self-help (StepUp) in treating depression in adults with intellectual disabilities. Chronic depression is five times more common in adults with intellectual disabilities than the general population and can be more enduring. Psychological therapies for treating depression are well established in the general population, but rely on verbal communication and cognitive skills, which can be a challenge for people with intellectual disabilities. Behavioural activation aims to increase participation in purposeful and motivational activities and is recommended by NICE for treating depression. Whilst research into CBT for adults with intellectual disabilities is encouraging, behavioural activation is less reliant on verbal and cognitive skills so may be more suited to this population. Both interventions involved a therapist, a structured approach and the presence of a supporter. Whilst BEAT-IT focussed on increasing activity, StepUp focussed on psychoeducation. The primary outcome was the Glasgow Depression Scale for people with a Learning Difficulty (GDS-LD), collected at baseline, 4 months (completion of therapy) and 12 months post randomisation.

Methods
We carried out a within trial analysis using data from the BEAT-IT trial. The analysis adopted an NHS and Personal Social Service perspective and used the intention-to-treat population. Data was collected at baseline and over the 12 months follow-up period. Resources were valued at 2015 costs in pounds sterling. Unit costs were taken from standard sources. Quality of life utilities were collected using the EQ-5D-Y questionnaire and combined with length of life to calculate quality adjusted life-years. Sensitivity analysis was carried out to test the robustness of the results using different assumptions. Bootstrapping was used to illustrate the impact of uncertainty in the results.

Results
Results from the trial found that depressive symptoms were significantly reduced in both arms after delivery of the intervention; this improvement endured to the end of the 12-month follow-up period. However, there were no significant differences between groups at either of these time points. The cost-effectiveness results were uncertain; there was no difference in mean total costs or quality-of-life between arms. The only certainty was that the BEAT-IT intervention was significantly more costly than StepUp; which was expected with BEAT-IT comprising more sessions than StepUp, and therapist training in BEAT-IT was more costly than in StepUp.

Discussion
Uncertainty in the results made them hard to interpret. To understand them further we took a disaggregate approach, splitting costs into separate resource items to assess whether there were differences at this level; this approach challenges current practice of focussing on aggregate costs. To our knowledge, this is the first cost-effectiveness study comparing behavioural activation and guided self-help in this population. There were good levels of recruitment and retention, refuting the widely held belief that it is not possible to recruit this population into large-scale trials of individual psychological therapies.

Publications
A Randomised Controlled Trial of the Effectiveness of PDSAFE to prevent falls among People with Parkinson’s Disease.

**Funder:** National Institute for Health Research

**Background**
People with Parkinson’s (PwP) are twice as likely to experience a fall as a healthy older person, often creating debilitating effects on confidence, activities levels and quality of life. The trial aimed to establish the effectiveness and cost-effectiveness of a novel, home-based physiotherapy intervention (PDSAFE) for falls management of PwP compared to usual care. A two-group multi-centred randomised controlled trial was conducted for PwP at risk of falls.

**Methods**
The cost-effectiveness analysis (CEA) of the PDSAFE intervention compared with usual care in people was estimated using a ‘within-trial’ analysis. Healthcare resource use and Health Related Quality of Life (HRQOL) utility data were collected at baseline and over the 6-month trial period. In line with NICE economic evaluation recommendations this CEA analysis adopted a National Health Service and Personal Social Service perspective. Costs were evaluated in GBP using a 2016 base year. All analyses were undertaken according to the principle of intention-to-treat. An incremental cost-effectiveness ratio (ICER) was estimated by dividing the difference in mean costs between arms by the difference in mean Quality Adjusted Life Years (QALYs) between arms. A number of sensitivity analyses were undertaken to assess the robustness of the base-case results to alternative assumptions.

**Results**
The PDSAFE intervention was more costly over the 6 month within trial time horizon but generated greater health outcomes than the control arm. The average cost per patient was £4,020 (95%CI £3,531, £4,510) in the intervention group and £3,095 (95%CI £2,694, £3,496) in the control group. The intervention group had an incremental cost of £925 (95%CI £428, £1,422) greater than the control group. The intervention group had an incremental QALY gain of 0.008 (95%CI 0.006, 0.021) compared to the control group. With an ICER of £120,659 per QALY, PDSAFE is not likely to be cost-effective in comparison to usual care. Subgroup analyses indicated that the PDSAFE intervention appears to be cost-effective in the subgroup of participants who were cognitively severely impaired. This is due to the substantial saving of NHS and social care services arising in this subgroup of the intervention arm. The intervention was also cost-effective in the subgroup of participants who had moderate severity of Parkinson’s due to the saving of the service use and the larger magnitude of QALY gained.

**Discussion**
The results showed that the PDSAFE home-based personalised physiotherapy intervention was not likely to be cost-effective for the overall Parkinson’s population from NHS and PSS’s perspective over the 6-month time horizon. Although not cost-effective in the overall population, subgroup analyses indicated that the PDSAFE intervention appears to be cost-effective in the subgroup of participants who were cognitively severely impaired and those participants who had moderate severity of Parkinson’s. Sensitivity analyses also indicated that PDSAFE was more likely to be cost-effective when a 12-month time horizon was adopted.

**Publications**
New projects awarded

Research Themes Key:
- **ALDA**: Analysis of Linked Health Data
- **DAMSEL**: Decision Analytic Modelling and Simulation for Evaluation in Health
- **EEACT**: Economic Evaluation alongside Clinical Trials
- **EPH**: Economics of Population Health
- **EPM**: Economics of Precision Medicine
- **ES**: Evidence Synthesis
- **GHTA**: Global HTA
- **IPE**: Incorporating Perspectives and Experience

Funders Key:
- **CHSS**: Chest Heart & Stroke Scotland
- **CRUK**: Cancer Research UK
- **DFID**: UK Department for International Development
- **EPSRC**: Engineering and Physical Sciences Research Council
- **EC**: European Commission
- **HIS**: Healthcare Improvement Scotland
- **MRC**: Medical Research Council
- **NIHR**: National Institute for Health Research
- **SEHD**: Scottish Executive Health Department

<table>
<thead>
<tr>
<th>Project title</th>
<th>HEHTA PI</th>
<th>Duration</th>
<th>Total Project Value (£)</th>
<th>Funder</th>
<th>Research Theme</th>
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<tbody>
<tr>
<td>Identifying attributes and associated preferences for value-based pricing of US cancer drug treatments: a discrete choice experiment</td>
<td>Andrew Briggs</td>
<td>2017-2017</td>
<td>79,296</td>
<td>Memorial Sloan Kettering Cancer Center</td>
<td>IPE</td>
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<tr>
<td>Evidence review for the Scottish Medicines Consortium</td>
<td>Olivia Wu</td>
<td>2017-2018</td>
<td>25,404</td>
<td>HIS</td>
<td>ES</td>
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<tr>
<td>Everyone’s HCV screening</td>
<td>Kathleen Boyd</td>
<td>2017-2019</td>
<td>146,640</td>
<td>Gilead Sciences Ltd</td>
<td>DAMSEL</td>
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<tr>
<td>Development of a fully Bayesian framework for the identification and estimation of subgroup effects in randomised controlled trials (BISECT)</td>
<td>Neil Hawkins</td>
<td>2017-2020</td>
<td>462,107</td>
<td>MRC</td>
<td>EPM</td>
</tr>
<tr>
<td>What is the impact of large scale implementation of stroke Early Supported Discharge (WISE).</td>
<td>Claudia Geue</td>
<td>2017–2020</td>
<td>618,000</td>
<td>NIHR</td>
<td>EPH</td>
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## Ongoing projects

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<thead>
<tr>
<th>Project title</th>
<th>HEHTA PI</th>
<th>Duration</th>
<th>Total Project Value (£)</th>
<th>Funder</th>
<th>Research Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randomised control trial of surveillance and no surveillance for patients with Barrett’s oesophagus - BOSS (Barrett’s Oesophagus Surveillance Study)</td>
<td>Andrew Briggs</td>
<td>2009-2022</td>
<td>1,710,981</td>
<td>NIHR</td>
<td>EEACT</td>
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<tr>
<td>FEMME trial: Randomised trial of treating Fibroids with either Embolisation or MyoMectomy to measure the Effect on quality of life</td>
<td>Olivia Wu</td>
<td>2011-2018</td>
<td>1,547,842</td>
<td>NIHR</td>
<td>EEACT</td>
</tr>
<tr>
<td>A randomised, double-blind placebo controlled trial of the effectiveness of low dose oral theophylline as an adjunct to inhaled corticosteroids in preventing exacerbations of chronic obstructive pulmonary disease</td>
<td>Andrew Briggs</td>
<td>2012-2018</td>
<td>2,248,498</td>
<td>NIHR</td>
<td>EEACT</td>
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<tr>
<td>Early CDT Lung Test study</td>
<td>Andrew Briggs</td>
<td>2012-2019</td>
<td>331,194</td>
<td>Oncimmune Ltd</td>
<td>EEACT</td>
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<tr>
<td>SurgiCal Obesity Treatment Study (SCOTS)</td>
<td>Andrew Briggs</td>
<td>2012-2026</td>
<td>1,443,837</td>
<td>NIHR</td>
<td>EEACT</td>
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<tr>
<td>Social and Emotional Education and Development (SEED): a stratified, cluster randomised trial of a multi-component primary school intervention that follows the pupils’ transition into secondary school</td>
<td>Emma McIntosh</td>
<td>2012-2018</td>
<td>913,653</td>
<td>NIHR</td>
<td>EPH</td>
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<tr>
<td>Trial of Healthy Relationship Initiatives for the Very Early-years (THRIVE): a three-arm randomised controlled trial for mothers Identified as vulnerable in pregnancy and their babies who are at high risk of maltreatment</td>
<td>Emma McIntosh</td>
<td>2013-2018</td>
<td>2,457,585</td>
<td>NIHR</td>
<td>EEACT</td>
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<tr>
<td>Cancer And Venous Access (CAVA) a randomised controlled trial with associated qualitative research of long-term venous access devices for the delivery of chemotherapy: Implantable venous access ports versus tunnelled central lines versus peripheral inserted central catheters</td>
<td>Olivia Wu</td>
<td>2013-2018</td>
<td>1,031,483</td>
<td>NIHR</td>
<td>DAMSEL, EEACT, ES, IPE</td>
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<tr>
<td>CULPRIT SHOCK - Multivessel versus culprit lesion only percutaneous revascularization in patients with acute myocardial infarction complicated by cardiogenic shock</td>
<td>Andrew Briggs</td>
<td>2013-2018</td>
<td>5,999,146 (€)</td>
<td>EC</td>
<td>EEACT</td>
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<tr>
<td>SYSTEMS 2: a randomised phase II trial of standard versus dose escalated radiotherapy in the treatment of pain in malignant pleural mesothelioma</td>
<td>Kathleen Boyd</td>
<td>2014-2020</td>
<td>130,312</td>
<td>CRUK BEATSON CANCER CHARITY</td>
<td>EEACT</td>
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<tr>
<td>Effectiveness and cost-effectiveness of a physical activity loyalty card to maintain behaviour change: A cluster randomised controlled trial</td>
<td>Emma McIntosh</td>
<td>2014-2018</td>
<td>831,970</td>
<td>NIHR</td>
<td>EPH</td>
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### Ongoing projects

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<tr>
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<th>Research Theme</th>
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<tr>
<td>‘Helpmedoit!’ a web and text based intervention to facilitate social support to achieve and maintain health related behaviour change</td>
<td>Emma McIntosh</td>
<td>2015-2018</td>
<td>430,883</td>
<td>NIHR</td>
<td>EACT, EPH</td>
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<td>Evaluation of the healthy start voucher scheme in UK: a natural experiment using the growing up in Scotland record linkage study and the infant feeding survey</td>
<td>Emma McIntosh</td>
<td>2015-2017</td>
<td>432,390</td>
<td>NIHR</td>
<td>EPH</td>
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<tr>
<td>Cardiac biomarkers and the prediction of CVD in Scotland</td>
<td>Andrew Briggs</td>
<td>2015-2018</td>
<td>362,413</td>
<td>SEHD</td>
<td>DAMSEL</td>
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<tr>
<td>QUIDS: Quantitative Fibronectin to help Decision-making in women with Symptoms of Preterm Labour</td>
<td>Kathleen Boyd</td>
<td>2015-2018</td>
<td>819,817</td>
<td>NIHR</td>
<td>DAMSEL</td>
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<tr>
<td>PATHway: Technology enabled behavioural change as a pathway towards better self-management of CVD</td>
<td>Andrew Briggs</td>
<td>2015-2018</td>
<td>4,899,080 (€)</td>
<td>EC</td>
<td>DAMSEL, EACT</td>
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<tr>
<td>Reducing sedentary behaviour among older adults – The SITLESS Project</td>
<td>Emma McIntosh</td>
<td>2015-2019</td>
<td>4,547,560 (€)</td>
<td>EC</td>
<td>EACT, EPH</td>
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<td>NIHR Complex Reviews Support Unit (CRSU)</td>
<td>Olivia Wu</td>
<td>2015-2020</td>
<td>2,000,000</td>
<td>NIHR</td>
<td>ES</td>
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<tr>
<td>ADScAN: A Randomised Phase II study of Accelerated, Dose escalated, Sequential Chemo-radiotherapy in Non-Small Cell Lung Cancer</td>
<td>Kathleen Boyd</td>
<td>2015-2021</td>
<td>28,431</td>
<td>CRUK</td>
<td>DAMSEL</td>
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<td>EMPOWER: Early signs monitoring to prevent relapse and promote wellbeing, engagement and recovery</td>
<td>Andrew Briggs</td>
<td>2016-2019</td>
<td>817,696</td>
<td>NIHR</td>
<td>EACT</td>
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<td>Extension of Follow-Up for High Risk Stage II Patients (additional 3 years) and Stage III Patients (up to year 3 follow-up) in the SCOT study</td>
<td>Andrew Briggs</td>
<td>2016-2018</td>
<td>274,695</td>
<td>NIHR</td>
<td>DAMSEL</td>
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<td>A woman-centred, tailored SMS-delivered multi-component intervention for weight loss and maintenance of weight loss in the postpartum period: intervention adaptation and pilot RCT</td>
<td>Emma McIntosh</td>
<td>2016-2018</td>
<td>505,751</td>
<td>NIHR</td>
<td>EPH</td>
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<td>Evaluation of legislation to reduce the drink drive limit in Scotland: a natural experiment</td>
<td>James Lewsey</td>
<td>2016-2018</td>
<td>90,765</td>
<td>NIHR</td>
<td>ALDA, EPH</td>
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<td>Evaluating graduated progress towards and impacts of the implementation of indoor smoke free prison facilities in Scotland</td>
<td>Kathleen Boyd</td>
<td>2016-2019</td>
<td>853,045</td>
<td>NIHR</td>
<td>EEACT</td>
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<td>Associations of blood biomarkers with cardiovascular disease and related cardio metabolic outcomes and risk prediction in the clinical setting: UK biobank</td>
<td>James Lewsey</td>
<td>2016-2019</td>
<td>75,000</td>
<td>CHSS</td>
<td>ALDA</td>
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<tr>
<td>Support to develop and deploy UAV technology for health commodity delivery</td>
<td>Eleanor Grieve</td>
<td>2016-2017</td>
<td>141,361</td>
<td>Bill and Melinda Gates Foundation</td>
<td>GHTA</td>
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<tr>
<td>Improved metrics to assess impacts of coastal aquaculture farming on community well-being and nutritional status across farmed sea-food value chains in saline floodplains of Bangladesh</td>
<td>Eleanor Grieve</td>
<td>2016-2018</td>
<td>247,368</td>
<td>DFID</td>
<td>GHTA</td>
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<tr>
<td>The Best Services Trial (BeST?): Effectiveness and cost-effectiveness of the New Orleans Intervention Model for Infant Mental Health</td>
<td>Emma McIntosh</td>
<td>2016-2020</td>
<td>3,437,346</td>
<td>NIHR</td>
<td>EPH, EEACT</td>
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## Projects completed

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<tr>
<th>Project title</th>
<th>HEHTA PI</th>
<th>Duration</th>
<th>Total Project Value (£)</th>
<th>Funder</th>
<th>Research Theme</th>
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</thead>
<tbody>
<tr>
<td>Comparison of close contact cast (CCC) technique to open surgical reduction and internal fixation (ORIF) in the treatment of unstable ankle fractures in patients over 60 years</td>
<td>Andrew Briggs</td>
<td>2009-2017</td>
<td>239,206</td>
<td>NIHR</td>
<td>EEAICT</td>
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<td>How effective is the Forestry Commission Scotland's woodland improvement programme - 'Woods In and Around Towns' (WIAT) - at improving psychological wellbeing in deprived communities?</td>
<td>Andrew Briggs</td>
<td>2012-2017</td>
<td>955,020</td>
<td>NIHR</td>
<td>EPH</td>
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<tr>
<td>BEAT-IT: A randomised controlled trial comparing a behavioural activation treatment for depression in adults with learning disabilities with an attention control</td>
<td>Andrew Briggs</td>
<td>2012-2017</td>
<td>1,207,488</td>
<td>NIHR</td>
<td>EEAICT</td>
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<td>Oral Versus Intravenous Antibiotics (OVIVA) for Bone and Joint Infection</td>
<td>Andrew Briggs</td>
<td>2012-2017</td>
<td>932,220</td>
<td>NIHR</td>
<td>EEAICT</td>
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<tr>
<td>E-Health Informatics Research Centres (E-HIRCs) - Farr Studentship</td>
<td>Olivia Wu</td>
<td>2012-2017</td>
<td>1,073,113</td>
<td>MRC</td>
<td>DAMSEL, ES</td>
</tr>
<tr>
<td>A Randomised Controlled Trial of the Effectiveness of PDSAFE to prevent Falls among People with Parkinson's Disease</td>
<td>Emma McIntosh</td>
<td>2013-2017</td>
<td>1,947,930</td>
<td>NIHR</td>
<td>EEAICT</td>
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<tr>
<td>A pilot evaluation of an intelligent liver diagnostic pathway: Making sense of LFTs for patients, GPs and the NHS in Scotland</td>
<td>Kathleen Boyd</td>
<td>2015-2017</td>
<td>222,249</td>
<td>SEHD</td>
<td>DAMSEL</td>
</tr>
<tr>
<td>Long term weight loss trajectories in participants in a randomised controlled trial of a weight management and healthy lifestyle programme for men delivered through professional football clubs: the Football Fans in Training follow up</td>
<td>Andrew Briggs</td>
<td>2015-2017</td>
<td>341,619</td>
<td>NIHR</td>
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HEHTA contributed to projects worth approximately £49 million
Tell us a little about your PhD
My PhD was methodological. It was concerned with the development of a broader economic evaluative space for complex public health interventions. Economic evaluation of public health interventions is challenging methodologically because often their outcomes are broad. They include health and non-health outcomes, making standard economic evaluation particularly difficult. Furthermore, there exists no guidance on how best to assess these varied outcomes. Therefore, I explored the application of an integrated approach, which combines the cost-utility analysis for the health outcomes with the stated preference discrete choice experiment of the cost-benefit analysis for the non-health outcomes. I took advantage of an existing framework in health economics-the net monetary benefit framework, which monetises the health outcomes to come up with a total outcome of both health and non-health on a single monetary scale. Further work was suggested to look at this combination because of the differences in scope of the willingness to pay values used (the societal willingness to pay for a QALY gained and the willingness to pay from a stated preference discrete choice experiment for marginal improvements in non-health outcomes). I used a case study of the Woods In and Around Towns (WIAT) project in Scotland for empirical analysis.

What attracted you to undertake your PhD at HEHTA?
The expertise of the team! My academic background is in business administration and economics but I wanted to do a PhD in health economics. Whilst writing my initial PhD proposal, I was inspired by two journal articles; “Using Discrete Choice Experiments within a Cost-Benefit Analysis Framework-Some Considerations” authored by Emma McIntosh and “The death of cost-minimization analysis” by Andrew Briggs. I applied for a studentship funded by the Forestry Commission Scotland, on economic evaluation of forestry-based health interventions, to explore potential use of methods from environmental, health and transport economics capable of valuing outcomes beyond health. I was fortunate enough to be awarded the studentship under the supervision of Andrew Briggs of HEHTA and Richard Mitchell of the Public Health Unit. Four years later, with the support of amazing supervisors and that of HEHTA and Public Health Unit colleagues, I was awarded my PhD.

What skills have you learned that you think will help your future career?
My PhD prepared me to be an independent researcher, a public speaker and presenter, and equipped me with project management skills.

Can you see how you will transfer the skills learned here to your own setting?
Yes, I can already see that these skills are currently at play in my new job as a Research Fellow in Health Economics, at the University of New South Wales in Sydney, Australia. I am responsible for all methodological stages of the stated preference discrete choice experiment study on fertility treatment in Australia. This involves making independent decisions, talking to different stakeholders, presenting the study to the wider community, and ensuring that all stages of the study are within schedule.
Tell us a little about your PhD
My PhD focussed on the application of methodology traditionally used in Health Economics to identify, measure and value broader non-health outcomes and their links to health and wellbeing. In my PhD I was seeking to answer how community empowerment within an urban regeneration context could be seen as a surrogate health outcome linked to future health and wellbeing outcomes. The work was part of HEHTA’s growing field on the ‘Economics of population health’ and viewed urban regeneration programmes as a form of population health intervention. It was funded by the Glasgow Centre for Population Health (GCPH) and, in a preliminary stage, used data collected as part of their longitudinal mixed-methods GOWELL research programme. My supervisors were Emma McIntosh (HEHTA) and Carol Tannahill (GCPH). The thesis provides valuations for attributes of community empowerment, which can be used to inform future resource allocation decisions related to the cost-effectiveness of community empowerment generating activities as part of the delivery of urban regeneration programmes. Progress on the application of economic evaluation methodology to public health has been challenging, thwarted by complexities due to broad ranging costs and outcomes that are not readily suited to established economic evaluation techniques. The thesis contributes to the growing field of public health economic evaluation by highlighting the use of stated preference techniques, specifically discrete choice experiment methodology, as a tool for measuring and eliciting values for the non-health outcomes of population health interventions for inclusion in economic evaluations.

What attracted you to undertake your PhD at HEHTA?
My interest was threefold. Firstly, I had just successfully completed my MSc in Town Planning at the University of Newcastle, where my dissertation had focused on the relationship between health and an individual’s or community’s surroundings on Glasgow’s upcoming (at the time) Commonwealth Games. It had reinforced that this was an evolving area of research that I was interested in. Secondly, the move into health economics was particularly attractive as I was keen to learn more about this research area and move away from a predominantly qualitative research background to learn quantitative techniques and I was intrigued by the question set by the studentship, it seemed to be the perfect mix of my previous research expertise and a new challenge I wanted to embrace. Lastly, this was a studentship with a team I wanted to work with (I had extensively read work by my future supervisors throughout my MSc.

What skills have you learned that you think will help your future career?
Before my PhD I had no hands-on experience of health economics and was a relative novice to the health-related research field, my PhD changed that. It has given me the opportunity to appreciate what I want to achieve in the foreseeable future and that I am more suited to mixed-methodology approaches. Additionally, my qualitative background has become an asset in my work. It has prepared me for working collaboratively, being a confident public speaker in front of diverse audiences, improved my writing skills and ensure that my timekeeping and management skills are a strength.

Can you see how you will transfer the skills learned here to your own setting?
Without a doubt. I am applying the same methodologies in a number of projects here at HEHTA. I am now based with the team here at HEHTA and my experiences gained through my PhD have ensured that I am now well established as a strong member of the team.
Highlights of 2017

Top row, left to right: Iain McInnes, Richard Barker, OBE, John Stageman (Medical Research Council).
Bottom row, left to right: Paula Lorgelly, Dame Anna Dominiczak, Olivia Wu.
Economics of Precision Medicine – theme launch

On Friday 20 January 2017, HEHTA marked the introduction of a new theme with a workshop, entitled ‘Improving the focus of Precision Medicine: the role of Health Technology Assessment’. The workshop comprised a series of talks given by invited speakers. Professor Dame Anna Dominiczak, Vice Principal and Head of College of MVLS, started the afternoon with an overview of the Scottish ecosystem for precision medicine and Professor Richard Barker, OBE, Director of the Centre for the Advancement of Sustainable Medical Innovation discussed the role of the Precision Medicine Catapult in overseeing the barriers to precision medicine. The new theme is led by Professor Neil Hawkins and complements 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).

Key issues on the economics of precision medicine

Value was at the core of the discussion held on our launch day. Dr Paula Lorgelly, Deputy Director of the Office of Health Economics, focused on the opportunities and challenges associated with precision medicine and stressed the need to consider aspects of value beyond those traditionally taken into account in HTA such as the value of hope or scientific spill overs. She also touched upon misaligned incentives for the development of precision medicine technologies where these are not developed alongside pharmaceuticals and the complexities of evidence generation in this field.

Rheumatoid Arthritis – too expensive to treat, too expensive to ignore?

Professor Iain McInnes closed the afternoon with an entertaining and informative discussion of the economics of precision medicine in rheumatoid arthritis. The prognosis for patients with this debilitating musculoskeletal condition has been transformed in recent years by the development of new therapies known as biological disease modifying anti-rheumatic drugs. But these drugs are expensive and not everyone responds to the same mode of action. This provides an opportunity for precision medicine as there is likely to be value in a test which could predict which patients were likely to respond.
17 March
A team from HEHTA introduced P3/P4 pupils at The Glasgow Academy to difficult decisions in healthcare, at a public engagement event for the school’s ‘Health Week’.

21 March
HEHTA co-ordinated this year’s Institute of Health and Wellbeing Research Away Day at the Grosvenor Hilton Hotel. A highlight was a leadership session presented by Kathryn Bishop from the Said Business School at the University of Oxford.

28 March
Janet Bouttell and Manuela Deidda presented synthetic control methodology and conducting economic evaluations alongside natural experiments, respectively, at the MRC/CSO Social and Public Health Sciences Unit ‘Natural Experiments Symposium’. There were good discussions with keynote speaker Professor Till Baernighausen from the University of Heidelberg in Germany, who later presented ‘Quasi-experiments in health systems research: value, uses, limitations’, at the Institute of Health and Wellbeing’s Maurice Bloch Annual Lecture Series.

1 August
We celebrated the promotion of Kathleen Boyd to Senior Lecturer.

20 August
Launch of HEHTA’s Introduction to HTA Massive Online Open Course (MOOC), in conjunction with FutureLearn.

31 August
Emma McIntosh hosted the HEHTA symposium; ‘Economic Evaluations 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. Evaluation alongside complex interventions.
AUTUMN

4 September
Inaugural event for the University of Glasgow International Society for Pharmacoeconomics and Outcomes Research (ISPOR) student chapter – Nick Latimer from the University of Sheffield presented on treatment switching.

25-29 September
Decision Analytic Modelling for Economic Evaluation (DAMEE) Course. Our face to face course brought over 100 academic and industry colleagues from all around the world to Glasgow for a week of intensive learning and networking. Delegates included MSc Health Technology Assessment students Melanie Kosaner Kliess, Fatim Lakha and Rodrigo Martins de Almeida pictured right with Andrew Briggs, James Lewsey and Margaret Ashton.

29 September
Members of the public tested the PATHway system (EU Horizon 2020), an internet-enabled, home exercise platform for cardiac rehabilitation, and estimated willingness to pay, at Explorathon’17 in Glasgow’s Riverside Museum, for European Researchers’ Night.

6 October
Dr Jeremy Teoh, a urologist from Hong Kong who was visiting HEHTA presented his work on prostate cancer.

WINTER

4-8 November
ISPOR European conference was held in Glasgow (see full page article)

28 November
Andrew Briggs presented the Maurice Bloch lecture, ‘Value Frameworks for Health Care: Is Oncology a Special Case?’, discussing the work on value frameworks he has been developing during his time at Memorial Sloan-Kettering Cancer Center, New York.
In November, the ISPOR European congress came to Glasgow. This huge gathering of health economists and outcomes researchers focused this year on the topic ‘The evolution of value in health care’. A subject close to our hearts at HEHTA, the nature of value in healthcare has formed the focus of congress co-chair Andy Briggs’ work at Memorial Sloan-Kettering Cancer Center, New York in 2017. This work was discussed in a workshop held on 7 November entitled ‘Practical Implications of Value-Based pricing and emerging value frameworks in HTA’. Another important contribution for HEHTA was Olivia Wu’s co-chairing of the Women in Health Economics and Outcomes Research (HEOR)/Science Open Meeting with ISPOR President Shelby Reed. This exciting initiative aims to help support the growth, development, and contribution of women in HEOR and to serve as a catalyst for women’s leadership in the field. HEHTA staff presented six short courses, two podium presentations and 16 poster presentations. Ciaran Kohli-Lynch won best student podium presentation for his ‘A framework for the cost-effectiveness analysis of novel biomarker testing in cardiovascular disease’ co-authored by K Boyd, A Briggs and C Delles. The focus for the team at ISPOR was the HEHTA exhibition stand where homemade tablet and the chance to win a bottle of whisky in our Glasgow-knowledge quiz encouraged new contacts as well as former students and collaborators to come and say hello.
Teaching and Supervision
MSc Health Technology Assessment (HTA)

Our online Masters course continues to grow in popularity and reputation.

In 2017 we introduced new modules for the first time.

These were:

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

We also continued to offer the following popular modules:

- Outcome measurement and valuation for HTA
- HTA: policy and principles
- Qualitative research methods for HTA

Quotes from some of our MSc students

DMITRY PONOMAREV  
Our first online MSC graduate  
"I’ve found the learning experience to be convenient and flexible. It suits me to participate at a time, and for a duration, that fits my professional and personal schedule too. “I appreciate having so many resources at hand, being able to replay lectures as and when needed to aid understanding and retention. Overall, I feel very satisfied with the course. All the components of the program were well designed and delivered. I especially liked the short videos with feedback at the end of each week. Communicating with faculty members informally was great fun (and help!) as well.”

MELODI KOSANERR KLIESS  
Current MSc student  
"I’ve worked in the Technology Assessment of medical devices for 3-4 years and I wanted to establish a strong background and skillset in the area, so that I could work with a wider range of health technologies. I wanted to receive HTA education by recognised professionals - I wanted to learn from the best at a reasonable price. The course at Glasgow covered topics I wanted to learn, e.g. survival analysis. In addition, I found out that Glasgow is a recognised University having influence over public health matters in Scotland.”

CALLUM STONE  
Current MSc student  
“Before deciding what to study I initially thought I wanted to do Health Economics, but as a working person I wanted a course that was more specific to the work I could envisage myself doing after graduation. Health Technology Assessment was a course that ticked all those boxes. At the University of Glasgow, I was able to plan my studying around work thanks to its online learning environment. You need to be disciplined when you take on a masters, but it really is the flexibility that makes an online/distance course the most practical option for people who are unable to put work or family entirely on hold for two years of study. At the same time, you need to be careful when you choose an online degree. There are so many, and can you really trust them? You are never going to be completely certain when you make such a big decision in life, but it was certainly reassuring to know I would be studying at one of the world’s most prestigious Universities. Looking back I’m really pleased with my decision.”
Introduction to HTA Massive Online Open Course (MOOC)

An exciting new development in 2017 was the filming of an Introduction to HTA Massive Online Open Course (MOOC). In August 2017, HEHTA offered this 3 week MOOC in conjunction 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 James Lewsey and Camilla Baba, who worked extensively with the University’s digital education team to develop and design the course. Over the three-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 of which were positively received, and generated extensive discussion. The course attracted over 1100 students worldwide. The course will be running again in 2018. Information and a short video introduction are available at the following link: www.futurelearn.com/courses/health-technology-assessment

PROJECT SUPERVISION

MPH


MSc HTA

- Project title: ‘An economic evaluation of mindfulness based cognitive therapy (MBCT) compared to routine practices for patients diagnosed with depression, employing a decision analytic model’. Student: Tracy Duff. Supervisors: Kathleen Boyd, Nicola McMeekin.

- Project title: ‘Comparative effectiveness of interventions for alcoholic liver disease: a systematic review and network meta-analysis’. Student: Jenny Harbour. Supervisors: Olivia Wu and Yiqiao Xin.
Continuing Professional Development
Online Distance Learning (CPD)

Following on from the success of the launch of our online CPD modules in 2016 we continued to add to our list of available modules in 2017

**The new modules added were:**
- Statistical methods for HTA and evidence based medicine
- HTA in a global context
- Survival analysis for HTA
- Foundations of Decision Analytic Modelling
- Evidence Synthesis
- Analysis of linked health data

**Modules which we continued to offer were:**
- Health economics for HTA
- Outcome measurement and valuation for HTA
- HTA: policy and principles
- Qualitative research methods for HTA

FOCUS on Global Health Technology Assessment (HTA)

The use of HTA continues to grow internationally. Whilst resources are finite in every setting, there is much diversity in the role and application of HTA. Our Global HTA module aims to equip students with the necessary skills to develop an understanding of HTA guidance and processes in different jurisdictions, to critique HTA in different contexts and to gain technical and analytical skills in the application of HTA, with a particular focus on low- and middle- income countries. Our research-led teaching explores geographical variation between high-income countries as well as looking more in-depth about how and why decision-making in healthcare may differ in low- and middle- income countries. Content includes an overview of the financing of health care systems, pricing and reimbursement, value assessment frameworks and methodological advances in HTA. The course draws upon HEHTA’s research from a global perspective, with input from with colleagues working in HTA in different countries together with major stakeholders including the international Decision Support Initiative (iDSI) and the Gates Foundation, as well as utilising staff members’ expertise in delivering training in HTA beyond the UK.

For full details of all modules offered, please see the list under our MSc on page 25.

For more information, please contact: ihw-hehta@glasgow.ac.uk

“I was sceptical about online learning at first, but it has exceeded my expectations by encouraging participation and providing a vast and useful range of course materials, including recorded lectures, that can be recycled.”

“Wonderful Learning experience! Highly recommended”

“All you need for survival analyses for HTA is in this course”.

“Very useful course which provided a great introduction to health economics in the form of useful lectures and interesting exercise.”
In 2017, we ran this course in the same format as previous years. Once again, it proved to be hugely popular with participants from all across the globe. We welcomed participants from:

- Belgium
- Canada
- Denmark
- Finland
- France
- Korea
- Netherlands
- Poland
- Senegal
- Sweden

The Foundations Course took place from 25-26 September and the Advanced Course from 27-30 September. Bookings have already started to come in for the 2018 course, which will run from 1-5 October 2018. Details can be found on our website or contact: ihw-hehta@glasgow.ac.uk for more information.

Here are some comments from the course participants:

“The course strikes the right balance between theory, practice, and the amount of information over a 3-day period”

“The best health economics course I have had so far”

“A well-organized course with great teaching given by top professionals which helps in developing and practising health economic modelling”


Haghpanahan H, Boyd KA, Mackay DF, McIntosh E, Pell J, Haw S. CE4 - The Effectiveness and Cost-Effectiveness of Tobacco Control Mass Media Campaigns In Scotland. Value in Health. 2017;20(9):A399-A400.

Haghpanahan H, Boyd KA, Mackay DF, McIntosh E, Pell J, Haw S. CE4 - The Effectiveness and Cost-Effectiveness of Tobacco Control Mass Media Campaigns In Scotland. Value in Health. 2017;20(9):A399-A400.


Baba C., Grieve E., McIntosh E. An economic evaluation of ‘Delivering Assisted Living Lifestyles at Scale’ (DALLAS). ISPOR R 20th Annual European Congress, Glasgow, UK. November 2017.*


Bouttell J. Early health technology assessment - increasing/optimising the value of GMP Node projects. GMP Symposium, Glasgow, UK. September 2017.


Bouttell J. Workshop to Laboratory Medicine Grand Round. Queen Elizabeth University Hospital, Glasgow UK. November 2017


Briggs A. Minimal clinically important difference in EQ-5D: we can calculate t, but does that mean we should? ISPOR 22nd Annual International Meeting, Boston, USA. May 2017.


Briggs A. Cost effectiveness of umeclidinium bromide 62.5g plus ICS/LABA versus ICS/LABA in COPD. ERS International Congress, Milan, Italy. September 2017. *

Briggs A. Cost-effectiveness of umeclidinium bromide 62.5μg or alternative LAMA plus ICS/LABA in COPD. ERS International Congress, Milan, Italy. September 2017 *
Briggs A. A criterion-based approach to systematic and transparent comparative effectiveness research: a case study in psoriatic arthritis. AMCP, Dallas, USA. October 2017.*


Briggs A. 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. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*

Briggs A. 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 cancer. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*

Briggs A. Economic evaluation of single inhaler triple therapy for patients with chronic obstructive pulmonary disease (COPD) using the Galaxy model. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*

Briggs A. A conceptual model of the economics of visualization in diagnostics and surgery. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*

Briggs A., Baba C., McIntosh E. But will they trade health? Developing an economic value framework for oncology. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*


Lewsey J. Catalyzing the changes in healthcare practices. CPCON conference, Manipal University, Mangalore, India. January 2017.


Rezaei Hemami M., Boyd K. Cost-effectiveness of intelligent liver function test (ILFT) for investigating patients with abnormal liver function test. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*


Ryan C. Patient perspectives on central venous access devices in chemotherapy: a qualitative investigation in the context of a large-scale RCT. CIRSE (Cardiovascular and Interventional Radiology Society of Europe), Copenhagen, Denmark. September 2017


Wu O., Hawkins N. Workshop: Improving the focus of Precision Medicine: the role of Health Technology Assessment. University of Glasgow, Glasgow, UK. January 2017


Xin Y. Testing the responsiveness of ICECAP-O in people with Parkinson’s and a comparison with EQ-5D-3L and a Parkinson’s specific quality of life measure PDQ-39. HESG, Aberdeen, UK. June 2017.

Xin Y., Lewsey J., McIntosh E. 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. ISPOR 20th Annual European Congress, Glasgow, UK. November 2017.*

*Poster presentation
Meet the Team

**Director**
Olivia Wu
Professor of Health Technology Assessment

**Deputy Director**
Emma McIntosh
Professor of Health Economics

**Professors**
Andrew Briggs
William R. Lindsay Chair in Health Economics
Neil Hawkins
Professor of Health Technology Assessment

**Reader**
James Lewsey

**Senior Lecturer/Health Economist**
Kathleen Boyd
Andrew Davies

**Lecturers**
Evi Germenri
Claudia Geue
Eleanor Grieve
Hannah Hesselgreaves

**Research**
Camilla Baba
Janet Bouttell
Nicki Boyer
Manuela Deidda
Hora Haghpanahan
Robert Heggie
Nicola McMeekin
Mohsen Rezaeihemami
Jose Antonio Robles-Zurita
Caoimhe Ryan
Yiqiao Xin
**PhD Students**

Willings Botha  
Giorgio Ciminata  
Tadesse Gebreye  
Ciaran Kohli-Lynch  
Ping Hsuan Hsieh  
Pattara Leelahaverong  
Claire Williams

**Visiting Researchers and PhD students**

Sermsiri Sangroongruangsri  
Fernando Zanghelini

**Affiliates**

Peter McMeekin

**Honorary Staff**

Henry Glick  
Julie Ratcliffe  
Karen Ritchie  
James Robinson  
Mark Robinson

**Administration**

Moira Aitken  
Caroline Cecil  
Jennie Clark  
Eileen Farrelly  
Alieda McKinney  
Laura Wood
In 2017 we welcomed to the team...

**Evi Germeni**

Evi is a Lecturer in Qualitative Methods for Health Research and also leads the Incorporating Perspectives and Experiences (IPE) research programme within HEHTA. She has a BSc in Psychology, an MSc in Communication and Media Studies, and a PhD in Health Communication. Over the last ten years, Evi has conducted both primary qualitative research and qualitative evidence syntheses across a range of clinical areas. Before joining the University of Glasgow, she was a Swiss National Science Foundation (SNSF) Advanced Postdoctoral Research Fellow, based first at the Institute of Health Research of the University of Exeter Medical School, and then at the Nuffield Department of Primary Care Health Sciences, University of Oxford.

**Andrew Davies**

Andrew has a Master’s Degree (York) and over twenty years’ experience in health economics, for the most part occupying senior roles at prominent health economics consultancies. He has directed innumerable cost-effectiveness models for submissions to NICE and other Health Technology Assessment bodies, covering a wide variety of disease areas. He has provided support relating to projects such as the UK multiple sclerosis risk-sharing scheme, and led training courses on economic evaluation and related methods in both bespoke (small group) and general (e.g. ISPOR short course) settings. Andrew joined HEHTA in the summer of 2017 as Senior Health Economist.

**Laura Wood**

Laura Wood joined the administration team on secondment, in September 2017. Laura has worked at University Sport for several years and is responsible for finance administration.

**Eileen Farrelly**

Eileen joined the team as an administrative assistant in October 2017. She completed her MSc in Adult and Continuing Education at the University of Glasgow and has worked in education, administration and as a web content writer.

**Ping-Hsuan Hsieh**

Ping-Hsuan (Shawn) Hsieh is our new PhD student. He was to be a pharmacist in Tri-Service General Hospital and received his MSc degree in Multidisciplinary Long-term Care in Taiwan. His PhD project involves assessing economic burdens of patients with rheumatoid arthritis (RA) and uses 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 Olivia Wu, Emma McIntosh and Claudia Geue.
Fernando Zanghelini

Fernando is a visiting PhD student in Therapeutic Innovation at the Federal University of Pernambuco (Brazil). His 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 in response to the need to increase the certainty of evidence and to guide health professionals and policymakers to better decision making. The study was conducted under the supervision of Olivia Wu.

Sermsiri Sangroongruangsri

Sermsiri (Ning) Sangroongruangsri is a PhD student from the Faculty of Pharmacy at Mahidol University in Thailand. Ning has an MSc in Clinical Pharmacology, a Bachelor’s degree in Pharmacy, and a background in omics-based research. Her PhD project involves assessing safety profiles of two drugs using real-world data. 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 spent three months with HEHTA as a visiting postgraduate research student, under the supervision of Olivia Wu and Claudia Geue.

Nicki Boyer

Nicki Boyer joined HEHTA as a researcher in 2014. Nicki has recently completed her PhD and moved back to her home city in the USA, where she will be taking up her new role as postdoctoral research fellow in the Agency for Healthcare Research and Quality (AHRQ), Center for Health and the Social Sciences (CHeSS), University of Chicago.

Hannah Hesselgreaves

Hannah Hesselgreaves was with HEHTA for two years as a Lecturer in Qualitative Methods for Health Research. Hannah moved to a new post as a Senior Research Associate at Newcastle University School of Medical Education.

Jennie Clark

Jennie Clark was with HEHTA for 2 years as an Administrative Assistant. Jennie moved to China where she is teaching English.
Awarded in 2017

Pattara Leelahavarong
‘Development and validation of alcohol use disorder prediction model for monitoring and evaluation of alcohol consumption control programmes in Thailand’
Supervisors: Andrew Briggs, James Lewsey

Camilla Baba
‘Valuing the health and wellbeing aspects of community empowerment using economic evaluation techniques’
Supervisors: Emma McIntosh, Carol Tannahill (external)

Willings Botha
‘Economics of forestry based health interventions’
Supervisors: Andrew Briggs, Richard Mitchell (external)

Claire Williams
‘Demonstrating the potential of multi-state survival models for enhancing epidemiological and health economic modelling’
Supervisors: James Lewsey, Andrew Briggs, Daniel Mackay (external)

Current Students

Yulia Anopa
‘Economics of paediatric caries prevention’
Supervisors: Emma McIntosh, Lorna Macpherson (external)

Janet Bouttell
‘Methods of early health technology assessment in precision medicine’
Supervisors: Andrew Briggs, Neil Hawkins

Nicki Boyer
‘Economic Evaluation of population health interventions’
Supervisors: Emma McIntosh, Kathleen Boyd

Giorgio Ciminata
‘Cost-effectiveness of new anticoagulant drugs using real world data within the Scottish population’
Supervisors: Olivia Wu, Claudia Geue, Peter Langhorne

Shadrach Dare
‘A retrospective cohort study of the risk factors for neonatal sepsis and other pregnancy related adverse outcomes in Ghana’

Supervisors: Daniel Mackay (external), Jill Pell (external), Hannah Hesselgreaves

Karl Ferguson
‘Diagram based analysis of causal systems for understanding the causes of alcohol problems’
Supervisors: James Lewsey, Mark McCann (external), Daniel Smith (external)

Ben Fulton
‘Quantitative research of patient preferences and perceptions of precision medicine in Oncology’
Supervisors: Robert Jones (external), Emma McIntosh, James Paul (external)

Tadesse Gebrye
‘Cost-effectiveness analysis and modelling the lifetime costs and benefits of health behaviour interventions on Diabetes (Type 2)’
Supervisors: Emma McIntosh, Kathleen Boyd

Eleanor Grieve
‘A Methodological Approach for Evaluating the Impact of Health Technology Assessment’
Supervisors: Andrew Briggs, Olivia Wu, Hannah Hesselgreaves

Ping Hsuan Hsieh
‘Evidence synthesis and decision analytic modelling’
Supervisors: Olivia Wu, Claudia Geue, Emma McIntosh

Ciaran Kohli-Lynch
‘Primary prevention of cardiovascular disease in disadvantaged populations: a comparison of modelling methods in the UK and the US’
Supervisors: Andrew Briggs, Kathleen Boyd

Nicola McMeekin
‘Can conceptual modelling methodology from other disciplines inform conceptual modelling methodology in economic evaluations of healthcare’
Supervisors: Andrew Briggs, Olivia Wu

Yiqiao Xin
‘Impact of variation of economic evaluation methods on the cost-effectiveness result: a case study of deep brain stimulation (DBS) in Parkinson’s’
Supervisors: Emma McIntosh, James Lewsey
A week in the life of Emma McIntosh, Deputy Director of HEHTA

Monday

AM
Writing and commenting on a grant application on antimicrobial resistance in Tanzania, being submitted with colleagues at the Institute of Biodiversity.

Regular meeting with the team working on our Physical Activity Loyalty Card and BEST economic evaluation projects.

PM
Commenting on a PhD thesis due to be submitted the following week for one of the (5) students I supervise.

Traveling to London ahead of National Institute for Health Research (NIHR) Public Health Research (PHR) funding board meeting.

Tuesday & Wednesday

Attending NIHR PHR funding board meeting.

Thursday

AM
Teleconference with co-collaborators on my EU Horizon 2020 SITless project.

Call with colleague at the MRC/CSO Social and Public Health Sciences Unit (SPHSU), to finalise job description for a Senior Health Economist to work jointly between HEHTA and SPHSU.

PM
MSc Health Technology Assessment (HTA) project marking.

Representing HEHTA at the Institute of Health and Wellbeing Senior Management Group monthly meeting.

Resourcing meeting with the Director of HEHTA and the Senior Administrator, to discuss the allocation of projects to the team.

Friday

AM
Short listing applicants for newly created post within HEHTA – Lecturer in One Health and Environmental Economics.

Attending the weekly coffee morning where colleagues from HEHTA and the other Institute research groups based in our building get a chance to chat and discuss their work socially.

PM
Editing Oxford University Press (OUP) book chapters on 'Applied Methods for Economic Evaluation of Population Health Interventions'.
Jeremy Yuen Chun, Teoh, Assistant Professor, Division of Urology, Department of Surgery, Prince of Wales Hospital, The Chinese University of Hong Kong, visited HEHTA in September 2017 and gave a seminar to the team.

Why did you choose HEHTA?
I am an urologist with special interest in prostate cancer. Prostate cancer treatments, from robotic surgery to cancer drugs, have become more and more expensive with time. I began to recognize the importance of HTA, and I decide to reach out to HEHTA to learn about this important specialty.

What did you learn during your visit?
During my stay at HEHTA, I had the opportunity to learn about different evaluation methods in HTA including discrete choice experiment, trial-based economic evaluation and decision modelling.

Do you have any plans to collaborate with HEHTA in the future?
I had fruitful discussions with my new friends at HEHTA, and we have moved forward to a number of collaborative projects in the field of urology. One of the projects aims to evaluate a commercially developed diagnostic test for patients with suspected prostate cancer. The diagnostic test carries a cost, yet it avoids unnecessary biopsies and biopsy-related complications. We plan to conduct a cost minimisation analysis to evaluate its economic impact, and we very much look forward to presenting the results in the near future.
Membership of Expert Bodies
Andrew Briggs
• Editor, Health Economics
• Trial Steering Committee: NOurishing Start for Health (NOSH)
• Trial Steering Committee: DISCHARGE
• Department of Health (DoH) committee to determine the allocation of funded MSc place in Health Economics
• Committee member to review funding applications for DoH Policy Research Centres

Eleanor Grieve
• Member of Economic and Social Research Council (ESRC) Global Challenges Research Fund Peer Review Group

Emma McIntosh
• Board Member, National Institute for Health Research (NIHR) Public Health Research (PHR) funding panel
• Board Member, Glasgow Centre for Population Health
• National Health Economists Interest Group
• Data monitoring Committee 2011-2015: NIHR Paces Trial

James Lewsey
• Chartered Statistician, Royal Statistical Society
• Chartered Scientist, The Science Council
• Member of Evidence Review Committee for Scottish Health Technologies Group, Healthcare Improvement Scotland

Kathleen Boyd
• Advisory Board Member, Beatson West of Scotland Cancer Centre Clinical Trials Unit: In-house Trials Advisory Board

Neil Hawkins
• Member of Medical Section Committee of the Royal Statistical Society

Olivia Wu
• Member of NIHR Systematic Reviews Programme Advisory Group
• Member of NIHR Health Technology Assessment General Board
• Member of the National Institute of Health and Care Excellence Technology Appraisal Committee
• Member of editorial board, Global & Regional Health Technology Assessment
• NIHR Trial/Research Programme Steering Committee: Promoting effective and rapid stroke care (PEARS), Paramedic acute stroke treatment assessment (PASTA), Quantitative fibronectin to help decision making in women with symptoms of preterm labour (QUIDS)