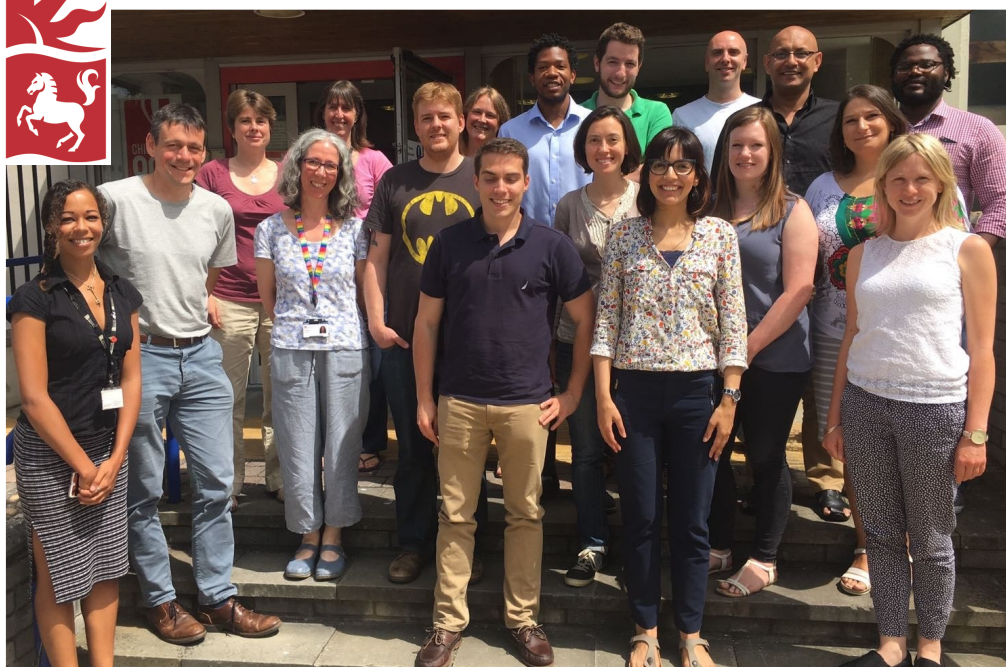


HEB Newsletter

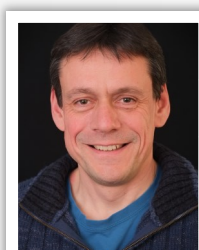
Health Economics at Bristol

Autumn 2017, Issue 4



The HEB team

“Welcome from Will”



Hello and welcome to the Autumn 2017 instalment of the HEB newsletter. It's the time of year when we welcome new PhD students, put the finishing touches to lectures/tutorials, wonder where the summer went and plan for the academic year ahead. This year will be special for HEB as we will host the next Summer HESG after a gap of almost 20 years. The hard work (selecting venues!) has begun and we look forward to welcoming you to the beautiful city of Bristol in June 2018.

This newsletter provides updates on a range of projects that address methodological challenges and policy questions reflecting the strengths of our group. Among the highlights are Jo Coast's prestigious Wellcome Investigator Award developing capability measures for children and Sabina Sanghera's NIHR post-doctoral fellowship examining methods for measuring health in recurrent fluctuating health conditions. Both projects challenge us to think more deeply about how we capture the benefits of healthcare. In applied work, we provide new evidence on the cost-effectiveness of screening for atrial fibrillation and treatment with new oral anticoagulants and question the value for money of anti-VEGF use in eye diseases.

I hope that you enjoy reading this update from our research group and that we will see you in 2017/18.

Will Hollingworth, *Director of HEB*

Inside this issue...

Our diverse research

Fellowships & new grants

SW HE strategy day

Staff news

Publications & conferences

NIHR Fellowship

Sabina Sanghera
([@SabinaSanghera](#))

Sabina was recently awarded a NIHR Post-Doctoral Fellowship.

Sabina's fellowship, which begins in January 2018, builds on her PhD and current research to assess the influence of timing of assessment, recall and the QALY calculation on cost-effectiveness recommendations in recurrent fluctuating health states. She will use mixed-methods to understand how patients complete questionnaires, identify how and when to measure quality of life, and investigate the suitability of current valuation methods in recurrent fluctuating states. Sabina will use chemotherapy treatment for cancer as a case study.

Sabina will collaborate with colleagues from Bristol and elsewhere, including NICE. She is very much looking forward to starting her fellowship and further developing her understanding of behavioural economics and memory as part of the training programme.



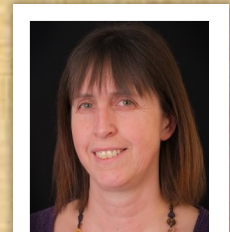
Sabina Sanghera

Wellcome award

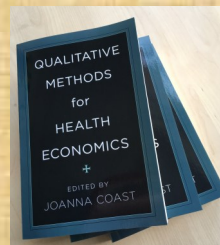
Joanna Coast
([@joclarkecoast](#))

Jo has recently been awarded a five year Wellcome Investigator Award, which will begin in early 2018.

The research will focus on generating a life-course approach to capability measurement for use in economic evaluation. This will include developing child ICECAP capability measures and exploring when and how to shift between capability measures at different stages of the life-course. Much of the work will be conducted using qualitative methods, applying the sort of approaches recently included in Jo's new edited book *Qualitative methods for health economics*, published by Rowman & Littlefield International in July 2017.



Joanna Coast



South West Health Economists' Day

Paul Mitchell ([@Paul_M_Mitchell](#))

Health Economists from HEB and HEG come together for our annual meeting.

The HEB team made the short journey to the University of Exeter in May for the yearly meeting of the South West Health Economists. The day was filled with a lively programme of presentations and discussions!

Three research presentations were delivered by HEB team members. Will Hollingworth presented his and Tim Jones' research on the national variation of costing between different drugs and their uses for eye problems. Jeff Round presented his recent work on accounting for equity in economic evaluations, with a preference elicitation task to keep all in attendance alert. Rebecca Kandiyali presented her work on the role of patient and public involvement in health economics, with her talk drawing from her experience working in child and family research.

South West health economists are developing research ideas together where mutual interest spans across the different units.



Health Economists from HEB and HEG

HEB Research Themes:

- Economics of Health and Care across the Life Course
- Methods for Applied Health Economics
- Efficiency and Equity in Decision Making

Trends & variation in the use of anti-VEGF and NHS costs

Tim Jones, Will Hollingworth (🐦 @willh108)

With colleagues from the University of Bristol and Queen's University Belfast, HEB team members Will and Tim investigated trends and variation in the use of anti-

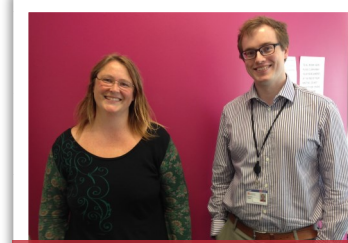


Will and Tim

Vascular Endothelial Growth Factor (anti-VEGF) injections to treat eye conditions. These injections can prevent sight loss, and potentially improve vision. The licensed drugs, ranibizumab and aflibercept, are expensive, currently costing the NHS £447 million per year. Their use has increased three-fold over the last five years, with some areas treating five times as many patients as others. Another drug, bevacizumab, is equally effective and much cheaper, but it is not licensed for treating eye conditions in the UK. The company which owns ranibizumab also owns bevacizumab, so there is no incentive for them to license the cheaper drug. The UK's regulatory framework does not allow recommendation of an unlicensed drug to clinicians. Recommendation of the cheaper drug could increase use and save the NHS money. Their paper has now been accepted in BMJ open!

Cost-effectiveness of screening for atrial fibrillation

Nicky Welton, Howard Thom (🐦 @howard_thom), Will Hollingworth (🐦 @willh108)



Nicky & Howard

Atrial fibrillation (AF) is a major cause of stroke and mortality. Many AF patients benefit from anticoagulation therapies, which have been shown to reduce the risk of an AF-related stroke. Earlier

detection could prevent AF-related strokes, disability and mortality. As part of an NIHR HTA funded project Nicky, Howard, and Will developed an economic model to compare cost-effectiveness of various different national screening strategies for AF. The model was populated with a comprehensive review of studies of the diagnostic performance of tests for AF, different methods of screening, efficacy of anticoagulation therapies, and natural history of AF. They found that a national screening programme in which older individuals (aged 65–70 years) are invited to be screened during a routine appointment with their doctor is likely to be cost-effective. There was also evidence that repeated screening every 5 years until age 80 years would prove to be of value. The screening test most likely to be cost-effective involves either a nurse taking a pulse rhythm check or a specific blood pressure monitor that is also able to detect AF. Find their HTA report at DOI: [10.3310/hta21290](https://doi.org/10.3310/hta21290)

Kidney patients' views on PROMs

Paul Mitchell (🐦 @Paul_M_Mitchell)

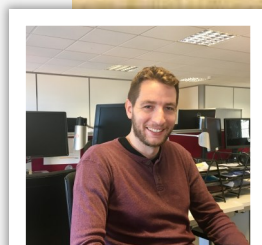
Thinkaloud interviews using ICECAP-A, ICECAP-O and EQ-5D-5L

As part of his post-doctoral fellowship funding in health economics with NIHR CLARHC West and the UK Renal Registry, Paul Mitchell has been conducting cognitive interviews with patients receiving kidney care. The objective of this research is to explore face validity, feasibility of completion and acceptability of the EQ-5D-5L, ICECAP-A and ICECAP-O measures in renal patients and to determine which ICECAP measure is more appropriate for this patient group.

Using the think-aloud interview method, patients were asked to complete these three patient reported outcome measures that can be used to measure patient benefit in economic evaluation. For a more in-depth understanding of patients' responses, semi-structured interviews followed the thinkaloud interviews. This is the first study to include both the ICECAP-A and the ICECAP-O in the same patient group. Paul interviewed 31 patients between April-July 2017 and is busy analysing the findings with HEB colleagues **Sabina Sanghera** and **Joanna Coast**.

Speaking of his first experience of conducting interviews, Paul said that "conducting the interviews brought to life the numbers that we as health economists typically plug into our analysis without much further thought."

Look out for Paul's publication in the new year.



Paul Mitchell

Key publications

Methods for Applied Health Economics

Kigozi, J., Jowett, S., Lewis, M., Barton, P. M. & **Coast, J** (2017). Valuing productivity costs using the friction cost approach: estimating friction period estimates by occupational classifications for the UK. *Health Economics*. doi: [10.1002/hec.3513](https://doi.org/10.1002/hec.3513)

Mohiuddin, S., Busby, J., Savović, J., Richards, A., Northstone, K., **Hollingworth, W.,** Donovan, J. & Vasilakis, C (2017) Patient flow within UK emergency departments: a systematic review of the use of computer simulation modelling methods. *BMJ Open*. 7:e015007 doi: [10.1136/bmjopen-2016-015007](https://doi.org/10.1136/bmjopen-2016-015007)

Round, J. & Paulden, M (2017). Incorporating equity in economic evaluations: a multi-attribute equity state approach. *European Journal of Health Economics*. <https://doi.org/10.1007/s10198-017-0897-3>

Round, J. & Hawton, A (2017) Statistical Alchemy: Conceptual Validity and Mapping to Generate Health State Utility Values. *PharmacoEconomics Open*. <https://doi.org/10.1007/s41669-017-0027-2>

Thom, H., Welton, N., Sharples, L. & Jackson, C (2017) Using Parameter Constraints to Choose State Structures in Cost-Effectiveness Modelling. *Pharmacoeconomics*. 35: 951. <https://doi.org/10.1007/s40273-017-0501-9>

Thorn, J., Brookes, S., Ridyard, C. H., Riley, R., Hughes, D. A., Wordsworth, S., **Noble, S.,** Thornton, G. & **Hollingworth, W** (2017) Core items for a standardized resource-use measure (ISRUM): expert Delphi consensus survey *Value in Health*. DOI: <https://doi.org/10.1016/j.ival.2017.06.011>

Efficiency and Equity in Decision Making

Blair, P. S., Turnbull, S., Ingram, J., Redmond, N., Lucas, P. J., Cabral, C., **Hollinghurst, S., Dixon, P.,** Peters, T., Horwood, J., Little, P., Francis, N. A., Gilbertson, A., Jameson, C. & Hay, A. D. (2017) Feasibility cluster randomised controlled trial of a within-consultation intervention to reduce antibiotic prescribing for children presenting to primary care with acute respiratory tract infection and cough. *BMJ Open*. 7:e014506 doi: [10.1136/bmjopen-2016-014506](https://doi.org/10.1136/bmjopen-2016-014506)

Busby, J., Purdy, S. & **Hollingworth, W** (2017) Calculating hospital length of stay using the Hospital Episode Statistics; a comparison of methodologies. *BMC Health Services Research*. 17:347 <https://doi.org/10.1186/s12913-017-2295-z>

Jacquet, L., Gaunt, D. M., **Garfield, K.** & Ridd, M (2017) Diagnosis, assessment and treatment of childhood eczema in primary care: cross-sectional study. *British Journal of General Practice Open*. DOI: [10.3399/bjgpopen17X100821](https://doi.org/10.3399/bjgpopen17X100821)

Opmeer, B., **Hollingworth, W., Marques, E.,** Margelyte, R. & Gunnell, D (2017). Extending the liaison psychiatry service in a large hospital in the UK: a before and after evaluation of the economic impact and patient care following Emergency Department attendances for self-harm. *BMJ Open* 7: e016906. doi: [10.1136/bmjopen-2017-016906](https://doi.org/10.1136/bmjopen-2017-016906).

Economics of Health and Care across the Life Course

Kandiyali, R., Sarginson, J., Hollen, L., Spickett-Jones, F. & Young, A (2017) The management of small area burns and unexpected post-burn illness in children under five years of age - a costing study in the English healthcare setting. *Burns*. doi: [10.1016/j.burns.2017.06.005](https://doi.org/10.1016/j.burns.2017.06.005).

Hollingworth, W., Busby, J., Butler, C. C., O'Brien, K., Sterne, J. A. C., Hood, K., Little, P., Lawton, M., Birnie, K., Thomas-Jones, E., Harman, K. & Hay, A. D (2017) The Diagnosis of Urinary Tract Infection in Young Children (DUTY) Study Clinical Rule: Economic Evaluation. *Value in Health*. 20, 4, p.556-566

HESG Summer 2018

HEB will be hosting HESG in June 2018!

We are busy planning for the summer conference and are looking forward to welcoming you all to Bristol.

Look out for our call for abstracts in February next year!!

HEB is growing!

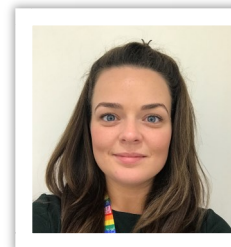


Nyasha Mafirakureva

Nyasha joined HEB in April 2017. He is working on projects assessing the costs and cost-effectiveness of infectious disease interventions in low and middle income countries.

His research interests include outcomes evaluation, infectious disease and decision modelling. His previous work involved evaluating blood transfusion safety interventions.

Nyasha is working with Peter Vickerman and HEB colleagues **Josephine Walker, Zoe Ward.**



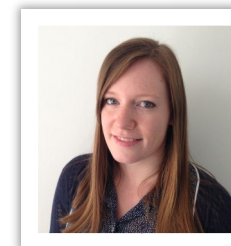
Aideen Ahern

Aideen joined HEB in September 2017 and is working on a number of applied projects with the Bristol Randomised Trials Collaboration (BRTC).

Aideen's previous research has focussed on using linked survey and administrative data to investigate the employment outcomes of disabled individuals in the UK. She has also undertaken research concerned with developmental Dysplasia

of the Hip.

Aideen is working with **Sian Noble and Will Hollingworth.**



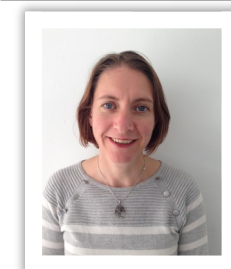
Kirsty Garfield

PhD Student! ([@KirstyGarfield](https://twitter.com/KirstyGarfield))

Kirsty starts her PhD this month. Her PhD title is 'Developing a modular resource-use questionnaire for use in RCTs'

Kirsty's supervisors are **Will Hollingworth, Jo Thorn, Sian Noble and Sam Husbands.**

Congratulations to:



Mairead Murphy

Successfully defended her thesis titled 'Development of a patient-reported outcome measure for primary care'

Mairead's supervisors were Chris Salisbury and **Sandra Hollinghurst**