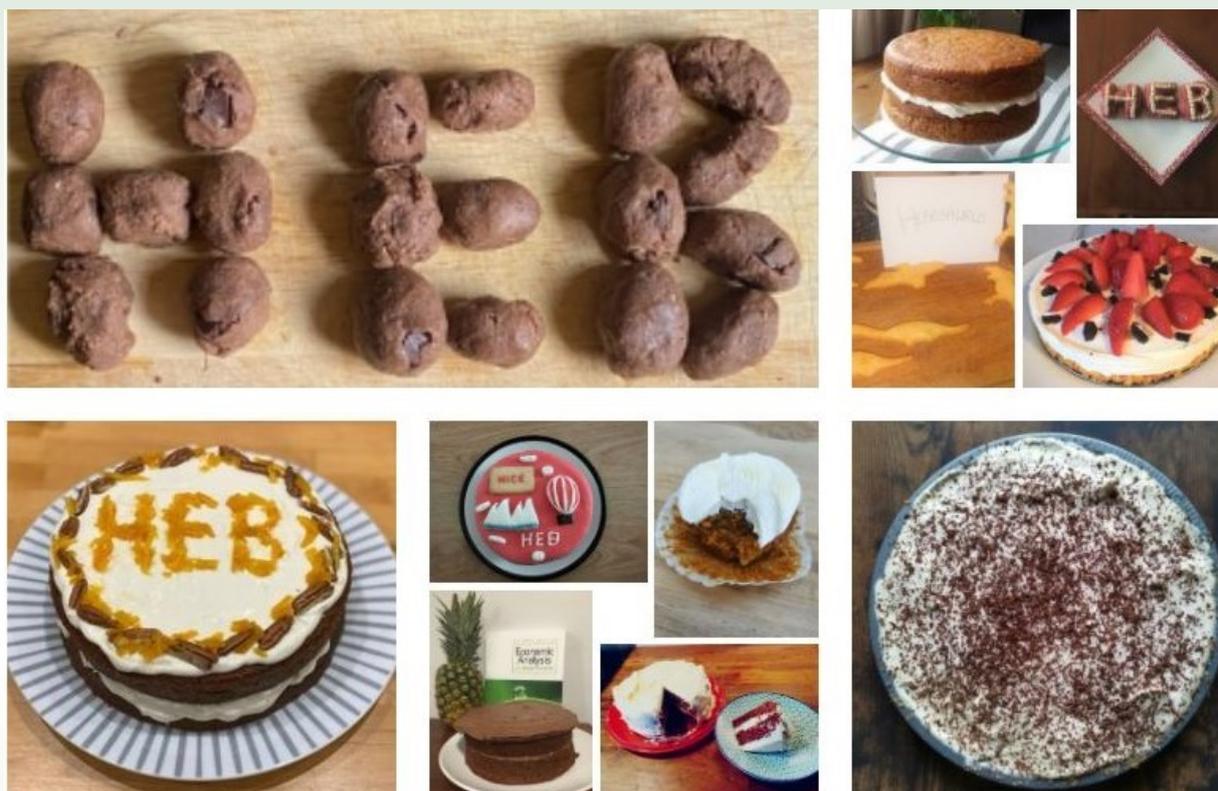




HEB Newsletter

Health Economics Bristol (HEB)



Welcome from Will & Jo



As you can see above, we have been trying to keep our creativity flowing throughout lockdown no.3 with the great HEB bake off! Our only rule was that the bake had to have a connection to HEB or health economics, no matter how tenuous; cakes covered with “icering” and “NICE” biscuits showed the imaginative flair within the team. We discovered lots of hidden artistic talents and are now well set to burn off the excess calories when spring arrives and lockdown finally eases!

In this issue, we bring exciting news of major funding for Nicky Welton and HEB colleagues Amanda Owen-Smith, Elsa Marques, Howard Thom, Rebecca Kandiyali and Will Hollingworth to set up a new NIHR Technology Assessment Review (TAR) team from Spring 2022 to support NICE committees in their decisions. In other funding news, Jo Thorn and HEB colleagues Kirsty Garfield, Sam Husbands, Sian Noble and Will Hollingworth have secured NIHR funds to extend the ModRUM resource use questionnaire to cover informal and social care and patient costs. We also report on findings from economic evaluation in areas as diverse as smoking cessation, hip replacement and the COVID-19 lockdown.

We hope you enjoy reading this issue and that we'll all be free to meet up, in person, for real, soon!

Will Hollingworth & Jo Coast, Co-Directors of HEB

HEB News — Research

NIHR ARC West research prioritisation process



One of our major collaborative links, [NIHR ARC west](#), has been working with public contributors, senior colleagues from across the health and care system, and academics to determine its stakeholders' research priorities for the next three years.

HEB members have contributed to the Research Oversight Groups which have identified a range of projects to which we will be contributing, including frailty and end of life services, social prescribing, adverse childhood experiences, fragmentation of mental health care pathways, and population health management. These groups are now developing work plans for these projects, and we are looking forward to working on this exciting research agenda.

[@ARC_West](#)

hugh.mcleod@bristol.ac.uk

Bristol technology assessment group to start in 2022



To make the best use of limited resources in the NHS, it is important that the medicines and treatments represent good value for money. To achieve this, the National Institute for Health and Care Excellence (NICE) issues guidance on whether new or existing health technologies are recommended as effective and cost-effective options for the NHS.

From April 2022, **Nicky Welton** and Penny Whiting will lead a new NIHR-funded Technology Assessment Review Group (TAG) in Bristol. The Bristol TAG will support NICE committees by (i) critiquing manufacturers submissions to NICE, and (ii) conducting systematic reviews, evidence syntheses and cost-effectiveness modelling to inform the NICE health technology assessment and diagnostics assessment programmes. The Bristol TAG brings together a multi-disciplinary team with extensive experience of delivering systematic reviews, evidence synthesis and cost-effectiveness modelling.

nicky.welton@bristol.ac.uk

Work begins to extend a concise standardised self-reported resource-use measure



Jo Thorn and colleagues have received funding from the NIHR Research for Patient Benefit (RfPB) programme to develop social care, informal care and patient personal expenditure questionnaire modules to be implemented alongside a recently developed healthcare resource-use questionnaire (ModRUM). ModRUM is a brief questionnaire designed to measure healthcare use (such as GP appointments) alongside a clinical trial.

In this project, we aim to extend the healthcare questionnaire by developing three further modules. The first will ask patients about social care they have used (e.g. home help). The second will cover informal care, such as help from a partner or friend. The final module will ask about costs that patients have paid themselves. If you would like to use the healthcare module in a study, please get in touch.

joanna.thorn@bristol.ac.uk

Short courses resume

After a year's hiatus, Bristol's renowned [short courses](#) in research methods are back and online. This year's short courses include 'Introduction to Economic Evaluation'; 'Economic Evaluation Modelling Using R'; and 'Essentials of Infectious Disease Modelling and Economic Evaluation'. We are working hard to create the mix of live and asynchronous learning interspersed with individual and group work, so that the 'learning as a group' experience is maintained and improved. Demand is particularly high this year, so please book early.

HEB Publications

A cost-effectiveness analysis of smoking cessation interventions in the UK accounting for major neuro-psychiatric adverse events



The aim of this analysis was to compare the cost-effectiveness of smoking cessation aids in the UK. The analysis adapted and updated a previous Markov cohort model to incorporate health outcomes and costs due to major neuropsychiatric adverse events associated with smoking cessation aids, alongside other major health events. The results showed that low-dose e-cigarette appeared to be the most cost-effective intervention in the base case followed by a combination of varenicline standard-dose plus bupropion standard-dose. The value of information analysis suggested researchers should continue to investigate the long-term effectiveness and safety outcomes of e-cigarettes in studies with active comparators.

edna.keeney@bristol.ac.uk

What are the inpatient and day case costs following primary total hip replacement of patients treated for prosthetic joint infection



Following total hip replacement surgery, a small percentage of patients develop a prosthetic joint infection (PJI). This is a serious complication that negatively impacts patients' lives. The aim of this study was to estimate the economic burden of PJI. Using data from the National Joint Registry and the Hospital Episode Statistics, we performed a matched cohort study to estimate the average cost of hospital admissions in the 5 years following primary hip replacement. We found that patients who received revision surgery for PJI cost on average £33,452 more than patients not revised for PJI (approximately £42,000 versus £8,000).

kirsty.garfield@bristol.ac.uk

COVID lockdown



Howard Thom, funded by the Elizabeth Blackwell Institute and working with **Dr Josephine Walker**, **Professor Will Hollingworth**, and Professor Peter Vickerman, compared the healthcare costs and benefits of the UK's covid-19 response to those of Germany, Ireland, Spain, and Sweden. They compared economic losses to health-related net benefits of preventing covid-19 cases, hospitalisations, and deaths over the first wave of the pandemic. They found that the UK saved health-related net benefits comparable to the economic losses, but that these benefits were lower than those of Germany, Spain, and Sweden. Their paper has been accepted by the European Journal of Public Health and Howard wrote for The Conversation on the challenges of covid-19 cost-benefit analyses.

howard.thom@bristol.ac.uk

"It is not a scientific number it is just a feeling": Populating a multi-dimensional end-of-life decision framework using deliberative methods



A deliberative approach was used to explore two issues around weighting outcomes at the end-of-life for economic evaluation. The first considered relative weights for those at end-of-life compared with close persons. Members of the public and policy makers were found to have similar mean weightings at around 70% for the person at end-of-life and 30% for close persons. The second explored relative weights for health gain and the capability for a good death with policy makers. Policy makers appeared to use a 'sliding scale' for weights, reducing the weight given to health gain as end-of-life approached.

jo.coast@bristol.ac.uk

Further key publications

Keeney, E, Mohiuddin, SG, Zienius, K, Ben-Shlomo, Y, Cookson, M, Grant, R, Hamilton, W, Weller, D, Brennan, P & **Hollingsworth, W** 2020, 'Economic evaluation of GPs' direct access to computed tomography for identification of brain tumours', *European Journal of Cancer Care*. <https://doi.org/10.1111/ecc.13345>

Garfield, KM, Noble, SM, Lenguerrand, E, Whitehouse, MR, Sayers, AE, Reed, MR & Blom, AW 2020, 'What are the inpatient and day case costs following primary total hip replacement of patients treated for prosthetic joint infection: a matched cohort study using linked data from the National Joint Registry and Hospital Episode Statistics', *BMC Medicine*, vol. 18, no. 1, pp. 335. <https://doi.org/10.1186/s12916-020-01803-7>

Breheny, K, Frew, E, Williams, I, Passmore, S & **Coast, J** 2020, 'Use of Economic Evidence When Prioritising Public Health Interventions in Schools: A Qualitative Study with School Staff', *International Journal of Environmental Research and Public Health*, vol. 17, no. 23, 9077. <https://doi.org/10.3390/ijerph17239077>

Keeney, E, Welton, NJ, Stevenson, M, Dalili, MN, Lopez-Lopez, JA, Caldwell, DM, Phillippo, DM, Munafo, MR & Thomas, KH 2020, 'A cost-effectiveness analysis of smoking cessation interventions in the UK accounting for major neuropsychiatric adverse events', *Value in Health*.

Caldwell, DM, Davies, SR, **Thorn, J**, Palmer, JC, Caro, P, Hetrick, SE, Gunnell, D, Anwer, S, López-López, JA, French, C, Kidger, J, Dawson, S, Churchill, R, Thomas, J, Campbell, R & **Welton, NJ** 2020, 'School-based interventions to prevent anxiety, depression and conduct disorders in children and young people: a systematic review, network meta-analysis and economic evaluation', *Public Health Research*.

McGlone, ER, Carey, I, Veličković, V, Chana, P, Mahawar, K, Batterham, RL, Hopkins, J, Walton, P, Kinsman, R, Byrne, J, Somers, S, Kerrigan, D, Menon, V, Borg, C, Ahmed, A, Sgromo, B, Cheruvu, C, Bano, G, Leonard, C, **Thom, H**, le Roux, CW, Reddy, M, Welbourn, R, Small, P & Khan, OA 2020, 'Bariatric surgery for patients with type 2 diabetes mellitus requiring insulin: Clinical outcome and cost-effectiveness analyses', *PLoS Medicine*, vol. 17, no. 12, e1003228. <https://doi.org/10.1371/journal.pmed.1003228>

Coast, J, Bailey, C, Canaway, A & Kinghorn, P 2021, "It is not a scientific number. It is just a feeling": populating a multi-dimensional end-of-life decision framework using deliberative methods', *Health Economics*. [10.1002/hec.4239](https://doi.org/10.1002/hec.4239)

Gühne, U, Dorow, M, Grothe, J, Stein, J, Löbner, M, Dams, J, **Coast, J**, Kinghorn, P, Helmut-König, H & Reidel-Heller, SG 2021, 'Valuing end-of-life care: translation and content validation of the ICECAP-SCM measure', *BMC Palliative Care*, vol. 20, no. 1, 29 (2021). <https://doi.org/10.1186/s12904-021-00722-5>

Thom, HHZ, Walker, JG, Vickerman, PT & **Hollingsworth, W** 2021, 'Exploratory Comparison of Healthcare costs and benefits of the UK's Covid-19 response with four European countries', *European Journal of Public Health*.

Marquez, L, Chaillon, A, Soe, KP, Johnson, D, Zosso, J-M, Incerti, A, Loarec, A, Nguyen, A, **Walker, JG**, Mafirakureva, N, Lo Re III, V, Wynn, A, McIntosh, C, Kiene, S, Brodine, S, Garfein, R, Vickerman, PT & Martin, N 2021, 'Cost and cost-effectiveness of a real-world HCV treatment program among HIV-infected individuals in Myanmar', *BMJ Global Health*, vol. 6, no. 2, e004181. <https://doi.org/10.1136/bmjgh-2020-004181>

Patel, R, Redmond, NM, Kesten, JM, **Linton, M-J**, Horwood, J, Wilcox, D, Munafo, J, **Coast, J**, Macleod, J & Jeal, N 2020, 'Drug Use in Street Sex workers (DUSSK) study – results of a mixed methods feasibility study of a complex intervention to reduce illicit drug use in drug dependent female sex workers', *BMJ Open*, vol. 10, e022728. <https://doi.org/10.1136/bmjopen-2019-036491>

Congratulations Alex!



Many congratulations to **Alex Chrysos** who successfully defended his PhD thesis at his viva in December. Alex's thesis explores the challenges of conducting early economic evaluation in the context of a novel diagnostic for endocrine disorders. Alex has now embarked on his post-doctoral career; we look forward to seeing him back in Bristol for graduation!

HEB team member on secondment



During October 2020 to April 2021, **Paul Mitchell** was seconded to the Centre for Thriving Places (CTP), a Bristol-based charity who work with decision makers at local authorities and organisations to help deliver a wellbeing economy.

During his secondment, Paul has been working closely with the CTP team to learn about their approach to policy engagement. He has also provided research support on a number of CTP projects, including the development of a rural wellbeing framework for evaluation purposes for the Department for Environment, Food and Rural Affairs. Paul was awarded a Wellcome Secondment Fellowship in 2020 to fund this placement.

Farewell to Shaun



In December, **Shaun Harris** left HEB to take up a post at the Swansea Centre for Health Economics. Shaun led the economic analysis on the MAGENTA trial in young people with chronic fatigue and the INFORM study in patients with prosthetic hip infection. We wish Shaun well in his new role.

New book out with a chapter from HEB author

"The cost-effectiveness of what in health and care" is a chapter by **Paul Mitchell** that features in a new interdisciplinary book titled "Defining the Value of Medical of Medical Interventions: Normative and Empirical Challenges".

HEB seminars

We would like to thank Helen Hayes from the University of Manchester, Ana Moura from Tilburg University, David Glynn from the University of York and Geoff Underwood, Louise Tranmer, Laura Tully and James Rooney from the South Central & West NHS Commissioning Support Unit, who have made our HEB seminar series particularly enjoyable over the past few months.

Health Economics Bristol

University of Bristol, Bristol, BS8 1NU

heb-twitter@bristol.ac.uk

www.bristol.ac.uk/health-economics/ [@UoBrisHEB](https://twitter.com/UoBrisHEB)