

Welcome to our August 2020 Newsletter

Our newsletter presents some of our recent research activity, including our new study into public preferences for government responses during a pandemic and our research into the use of Decision Aids by doctors. New ways of working are also reflected in the newsletter as we report recent events that were moved online and highlight our online courses.

We hope you enjoy reading about our work and activities. Further information is available on our website. More frequent updates are on the HERU Twitter account (@HERU_Abdn).

HERU NEWS

AUGUST 2020

Lives and livelihoods: understanding public preferences and trade-offs for government responses during a pandemic

Public health responses to the COVID-19 pandemic have impacted on people's physical and mental health, and have also had, sometimes profound, economic consequences. Economic impacts include unemployment rates increasing and individual income falling, with some groups of people more likely to experience economic hardship than others. Public health responses must then balance protecting the population and healthcare system with the impact on the economy and personal freedoms. A better understanding of public preferences and how they differ across communities may help policy makers decide which interventions to deploy.

Using a discrete choice experiment (DCE), we will investigate public preferences for pandemic responses in the UK. We will estimate the trade-offs individuals are willing to make: for example, how much personal income are respondents willing to forgo to reduce excess deaths or what increases in job losses are people willing to accept to reduce the infection rate? We will also test if respondents' preferences differ based on moral attitudes, demography, socioeconomic circumstances, health status, country of residence, or experience of COVID-19.

The survey instrument is currently being developed, using virtual 'think aloud' interviews, with members of the general public recruited via Facebook. We will collect preference data using an online survey of 4000 individuals from across the four UK countries (1000 per country). Results will be available by the end of the year.

Research Team: M. Genie, L. Loría, M. Ryan, R. Sakowsky, V. Watson (HERU); S. Paranjothy, (Health Data Science Research Centre, University of Aberdeen); D. Powell (Health Psychology, University of Aberdeen)

For more information see: <https://www.abdn.ac.uk/heru/research/methods-of-benefit/valuing-patient-exp/lives-and-livelihoods/> or contact Mesfin Genie (mesfin.genie@abdn.ac.uk) or Mandy Ryan (m.ryan@abdn.ac.uk)



Our forthcoming online courses...

We offer flexible online learning opportunities in health economics.

Our postgraduate programme *Health Economics for Health Professionals* is delivered part-time and 100% online. You can study to MSc, Diploma or Postgraduate Certificate level. The next course starts in September 2020 and we are still accepting applications. More details of the programme and how to apply are available at: <https://on.abdn.ac.uk/degrees/health-economics-for-health-professionals/>

Our short course in *Health Economics* is offered via the University's On-Demand Learning programme. It runs for 11 weeks and the next start date is January 2021. More details of the course and information on how to sign up are available at: <https://on.abdn.ac.uk/courses/health-economics/>



HERU is supported by the Chief Scientist Office (CSO) of the Scottish Government Health & Social Care Directorates (SGHSC)



GENOME SEQUENCING



Towards a better understanding of the costs and benefits of whole genome sequencing for the diagnosis of rare conditions in Scotland

Spring and summer promised to be an exciting time for our research looking at whether Scotland should provide Whole Genome Sequencing (WGS) for the diagnosis of rare diseases. **Mandy Ryan** and **Michael Abbott** were planning on presenting their work in Dijon at the European Conference on the Diffusion of Genomic Medicine and HERU had co-organised a workshop on the health economics of genomic medicine to take place in Edinburgh. Both events were unfortunately cancelled, but will hopefully go ahead in 2021.

Although these events were cancelled, our Scottish Government funded project has progressed well. We have been exploring the costs of the standard genetic testing pathway for patients with rare conditions. Based on data collected for 259 patients with rare genetic conditions, we found significant variability both between and within subgroups of patients. We are currently seeking approval to extend our analysis to a larger sample of patients.

As the comparator to standard genetic testing, we have also been exploring the costs of Whole Genome Sequencing (WGS). Building on a micro-costing exercise at NHS Grampian, we have been collaborating with the other three regional genetics centres in Scotland to validate our costing and assess whether there are any differences in costs by region.

Whilst WGS is estimated to be significantly more expensive than standard genetic testing, it may be a cost-effective option for NHS Scotland if the benefits outweigh the additional costs. We have been analysing data from qualitative interviews exploring what is important to patients and their families. A key result was that conventional measures of health-related quality of life, such as EQ-5D, fail to capture aspects of WGS which patients and families value, for example, more information and the benefit to future patients of contributing to research. These results will inform the development of a discrete choice experiment, aiming to broaden the valuation space and better assess the user perspective on the benefits of WGS.

Michael has also been developing a PhD proposal in this exciting and rapidly developing area. He aims to assess the impact of different perspectives, for example, patients and the general population, on the valuation of WGS and the implications for policy recommendations.

Overall, it has been a busy few months and we are looking forward to presenting our findings at rescheduled events in 2021.

Research team: M. Ryan, L. McKenzie, R. Hernández, M. Abbot (HERU); Z. Miedzybrodzka, L. Mennie, C. Clark (Medical Genetics, University of Aberdeen) and S. Heidenreich (Evidera)

For more information see: <https://www.abdn.ac.uk/heru/research/methods-of-benefit/valuing-patient-exp/wgs-healthconomics/> or contact **Michael Abbott** (michael.abbott@abdn.ac.uk)

Recent HERU Blogs...

A wide range of our research activity has been highlighted on our HERU Blog. Recent posts have included research relevant to the coronavirus pandemic, including the development of an intensive care admissions decision tool that was recommended for use by NICE, and a discussion of how we can explore which pandemic responses are right for the community. We also highlight PhD research in HERU looking at the impact of life shocks on the clinical decision making of doctors, which may provide insight into a potential effect of the coronavirus pandemic.



Our recently funded project to explore any unintended consequences for diet quality and health after the introduction of a minimum unit price for alcohol in Scotland is featured, and we highlight some of our work on the cost effectiveness of treatments for stress urinary incontinence.

You can catch up on all our Blog posts at: <https://www.abdn.ac.uk/heru/blog/>

Does the accuracy of a Decision Aid affect how doctors use it?

In a clinical consultation, doctors and patients each have different information. Doctors know a lot about the available treatments, their benefits and side effects. Patients know what factors are most important to them. In an ideal shared decision making consultation, doctors and patients will exchange this information and choose a treatment together that best suits the patient. This type of consultation requires time and skill. Decision Aids have been promoted as a way to help doctors and patients exchange information.

Most decision aids focus on helping patients understand the treatment information the doctor knows. More recently, decision aids help doctors to learn about patients' preferences and to predict patients' 'preferred' treatments. Decision aids may make inaccurate predictions for some patients. This will happen if the decision aids does not include all treatment factors, or if the way information is presented in the decision aid induces behavioural biases in patients' responses.



If decision aids are inaccurate for some patients then these patients may not receive the best treatment for them. In this study, we test if doctors use of Decision Aids depends on how accurate it is for the whole patient group. We use experimental economics methods to design a lab-based experiment in which students in the role of doctors choose how much effort to make in a consultation in order to gain information about patients' preferences. Doctors can choose between three effort levels that are increasing in accuracy: a short conversation; a Decision Aid; and a long conversation. The experiment has three-arms, which vary in how accurate the Decision Aid is. In the experiment, participants have a consultation with 25 different, hypothetical patients. We compare the use of the decision aids across the three arms to test if doctors are less likely to use inaccurate decision aids. Our results will have implications for understanding how Decision Aids are used in practice and potential barriers to adoption.

Research team: V. Watson, Pol, M. van der (HERU); D. Regier (University of British Columbia), A. Irvine (Scottish Government, Health and Social Care)

For more information see: <https://www.abdn.ac.uk/heru/research/worgc/projects/developing-economic-experiments-to-understand/> or contact **Verity Watson** (v.watson@abdn.ac.uk)

Treatments for varicose veins—The CLASS Study

Varicose veins are swollen and enlarged veins that usually occur on the legs and feet. They can often be managed without treatment, but sometimes the symptoms cause enough discomfort to require treatment.

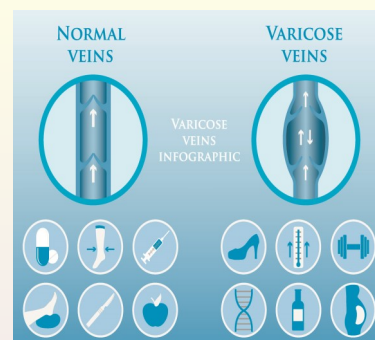
The most used treatment options include endothermal ablation - this involves using a heat source (often from a laser) to seal the affected veins; sclerotherapy – which uses a special foam to seal the vein; and conventional surgery (ligation and stripping) – which involves tying the affected veins off and stripping them out. The CLASS study was a randomised controlled trial, funded by the National Institute for Health Research, to compare outcomes of laser ablation, foam sclerotherapy, and surgery for the treatment of symptomatic varicose veins.

The initial results of the trial were followed up at six months, and then again at five years, post randomisation. The five year follow-up found that patients who were treated with laser ablation or surgery reported better quality of life compared to those treated with foam sclerotherapy. In addition, fewer patients who had undergone surgery or laser ablation reported the presence of any varicose veins (existing or new) or further treatment for varicose veins.

Given the costs of further treatment and estimated differences in quality of life over five years, we found laser ablation to have the highest chance of being cost-effective on account of it being less costly than surgery, and on average more effective than foam sclerotherapy. The findings of the CLASS trial can help guide the varicose vein treatment decisions of healthcare providers and patients around the world.

Research team: G. Scotland, E. Tassie, M. Dimitrova (HERU); J. Brittenden, K. Cassar, P. Bachoo, J. Norrie (School of Medicine, Medical Sciences and Nutrition, University of Aberdeen); M.J. Gough, I.A.D. Mavor, J. Scott (University of Leeds); P. McCollum (University of Hull); I.C. Chetter (Hull NHS Trust); J. Burr, M. Campbell and C. Ramsay (Health Services Research Unit, University of Aberdeen)

For more information see: <https://www.abdn.ac.uk/heru/research/assessment-of-technologies/techadoption/class/> or contact **Graham Scotland** (g.scotland@abdn.ac.uk)



‘Going virtual with our seminars and conferences...’

On 18th June, HERU PhD student **Mélanie Antunes** gave a short virtual presentation at the University of Aberdeen Post-Graduate Research Summer Conference. Mélanie’s presentation covered her research on designing and using a discrete choice experiment to measure public and patients’ preferences for social prescribing.

On the 20th of June, **Ruben Sakowsky** of HERU presented an online talk at the World Congress of Bioethics. Ben presented work based on his completed PhD research and his talk was entitled ‘Expanding the valuation space of health preference elicitation: what range of normative considerations are deliberative approaches sensitive to?’ His work looked at the preferences of older women for breast cancer screening invitation programmes.



On 16th July, HERU's **Daniel Kopasker** participated in a Productivity Insights Network webinar on 'Good work and mental health in the post-COVID era'. Daniel discussed his work on employment insecurity and mental health with representatives from the RSA Future Work Centre and Manchester Metropolitan University. The webinar is available online at the PIN website: <https://productivityinsightsnetwork.co.uk/portfolio/good-work-and-mental-health-in-the-post-covid-era/>

The HSR UK Conference 2020 took place online from 1-3 July. Agata Kostrzewa of the Health Services Research Unit at the University of Aberdeen presented research on an evaluation of the Scotland's Baby Box scheme. HERU are involved in this research which looks at the long-term social outcomes which the Baby Boxes might have on the well-being of parents and their children. The presentation and abstract are available on this page of the conference website: <https://hsruk.org/conference-2020/presentations/patient-and-public-voice>

‘Virtual external seminars’

On the 14th of May, Dr Cesar Revoredo Giha, of Scotland’s Rural College, delivered an online seminar on prices, marketing and food choices. The talk covered work done in collaboration with **Paul McNamee** and **Patricia Norwood** of HERU on the impact of restricting the advertising of promotions on discretionary products.

On 11th June, Dr Heather Brown, Senior Lecturer at Newcastle University, delivered an online seminar on her research on the use of food standard hygiene rating data to evaluate changes in the food environment over time.

From EuHEA to virtual internal seminars...

We were successful in getting a number of papers accepted for the EuHEA (European Health Economics Association) conference which was due to take place from 7th-10th July in Oslo. The conference was cancelled but the accepted abstracts can be viewed online at the [EuHEA website](#). We used the papers from HERU to form a virtual internal seminar series, with papers presented and discussed online. Abstracts accepted included:

- The effects of online deliberation on altruistic preferences and moral reasoning – results from a choice experiment.
- Cost-effectiveness of novel biomarkers to help assess the risk of acute kidney injury in critically ill people considered for critical care.
- Getting personal: investigating individual-level preferences in the delivery of person centred care.
- Difficulty or realism? The impact of the cost attribute on choice behaviour in a stated preference experiment.
- Does bias in personalised Decision Aids lead to lower use by doctors: a lab experiment.

Discrete Choice Experiment courses for 2021

We are now taking bookings for our 2021 Discrete Choice Experiment courses.

Our popular course will take place in **Banff, Canada** from 7th to 10th March 2021. This course will be run in collaboration with University of Calgary.

The course will run again in **Aberdeen** from 29th September to 1st October 2021.

More details on both courses are available at: <https://www.abdn.ac.uk/heru/courses/workshops/>

We are hoping that both courses will be able to proceed in person. We have booked large rooms and will follow public health guidance to ensure physical distancing.