

Welcome to our September Newsletter

Summer offers a great opportunity to welcome students to HERU. In this newsletter we highlight our summer capacity building activities, including welcoming three summer interns. We also feature some of our newly funded research. Summer is a busy time for conferences, and we highlight several events HERU staff and students attended.

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).

Capacity Building

We welcomed three students to our Summer Internship programme.

Cameron Owens – University of Aberdeen, worked with **Elisabet Jacobsen** on developing a user-friendly method of presenting cost-effectiveness evidence and with **Attakrit Leckcivillize** on conducting a systematic review on ‘Healthy and unhealthy diets: their interrelation and effects on health and wellbeing’.

Jennifer Martin – University of Kent, worked with **Patricia Norwood** on a Q-methodology project looking at understanding what consumers think about meat consumption and with **Dwayne Boyers** on a study valuing dental care services.

Jeanne Armand – University of Dundee, worked with **Alastair Irvine** researching different experiment designs using oTree software and with **Marjon van der Pol** on a literature review of time and risk preferences for cancer screening.

To hear about our interns experience see <https://www.abdn.ac.uk/heru/blog/heru-internship-experiences-2019/>.

We also welcomed Charlotte Kennedy, an MSc student from the University of York, to work on her research dissertation. Charlotte worked with **Marjon van der Pol** on ‘The role of time and risk preferences in spousal correlations in health behaviours’ using Household, Income and Labour Dynamics in Australia (HILDA) data. Michael Doherty, a genetics undergraduate student at the University of Aberdeen, worked with **Lynda McKenzie** estimating resource use for standard genetic testing for rare diseases. This research will make a valuable contribution to our new CSO funded study exploring the costs and benefits of whole genome sequencing.



L to R: Jeanne Armand, Charlotte Kennedy, Jennifer Martin, Cameron Owens



Another successful course – In September we ran our popular ‘Using Discrete Choice Experiments in health economics: theoretical and practical issues’, course. This was delivered by **Mandy Ryan**, **Verity Watson** and **Luis Loria-Rebolledo** in collaboration with Professor Deborah Marshall at the University of Calgary and took place in Banff, Alberta, Canada. We had 18 delegates from a range of countries, including Canada, Malaysia, USA and the UK, who provided lively debate and discussion about the application of Discrete Choice Experiments in health economics. Our next joint Aberdeen-Calgary DCE course will take place in Banff in 2021, date to be confirmed. Keep an eye on our website for more details: <https://www.abdn.ac.uk/heru/courses/workshops/>.

Places still available

**MSc/Postgraduate Diploma/
Postgraduate Certificate
in Health Economics for
Health Professionals (online)**

<https://www.abdn.ac.uk/heru/courses/pgcert/>

**Workshop – ‘Using Health Economics Evidence in Health
Care Decision Making’**

Wednesday 29th April, Dewars Centre, Perth

This workshop provides an introduction to the identification, appraisal and application of economic evaluation for policy-making in healthcare.

<https://www.abdn.ac.uk/heru/courses/workshops/heph-workshop/>

New Research

Here we highlight recent research funding awards. We will report the findings of these projects in future Newsletters.

Should Scotland provide whole genomic sequencing for diagnosis of rare disorders: a health economic analysis?

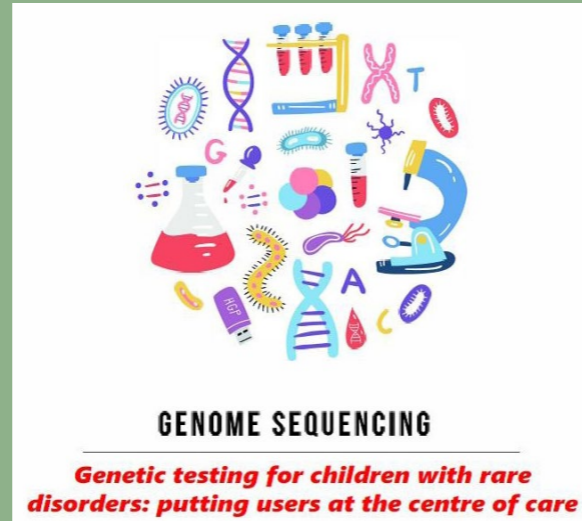
Taken together, rare disorders are common and affect 6-8% of the Scottish population. Most are severe and life-threatening with a profound impact upon the quality of life and wellbeing of the individual and their family. The typical journey to diagnosis, or 'diagnostic odyssey', can take many years, with numerous hospital visits, costly and invasive tests, several misdiagnoses, and shattered hopes and expectations; many families never receive a diagnosis. As 80% of rare disorders have a genetic origin, increasing access to genetic diagnosis is a key component of UK and Scottish Rare Disease policy.

Standard genetic testing is limited to examination of DNA from single gene variants to smaller gene panels (typically <100 genes) and is triggered by specialist clinical suspicion. More recently, comprehensive sequence analysis of a person's entire DNA (Whole Genome Sequencing/WGS) or all the protein coding parts of their DNA (Whole Exome Sequencing/WES) increases diagnostic yield (% of cases receiving a positive diagnosis) and is expected to enable quicker diagnosis. Potential benefits to patients and families of comprehensive sequence analysis include improved diagnostic yield, reduced length and scope of the diagnostic odyssey, reduced need for clinical attendance and investigative tests, and information for family planning and clinical management. However, little is known about how patients and families value such aspects of comprehensive DNA sequencing. The financial implications are also unclear.

Our CSO funded study will address the evidence gap around the benefits to service users (patients and families) and assess the resource implications of different genomic testing pathways.

Research Team: **Mandy Ryan, Lynda McKenzie, Rodolfo Hernández** (HERU), Dr Lynne Mennie, Professor Zofia Miedzybrodzka, Caroline Clark (Medical Genetics, University of Aberdeen) and Dr Sebastian Heidenreich (Evidera Inc).

For further information please contact **Mandy Ryan** (m.ryan@abdn.ac.uk).



Does Minimum Unit Pricing for alcohol have unintended consequences for diet and health?



Funded by the CSO, we will research the unintended consequences of the minimum unit pricing (MUP) for alcohol

legislation that was introduced in Scotland in May 2018. We will examine whether household food spending is reduced as people spend more on purchasing alcohol. Changes in the volume and type of food purchased will be considered along with the effect that this has on diet quality and the consequences for health. The project will employ a natural experiment, comparing household spending before and after MUP with the North of England, where MUP does not apply.

Research team: **Anne Ludbrook, Paul McNamee, Lynda McKenzie** (HERU) and Dr Stephen Whybrow (The Rowett Institute, University of Aberdeen).

For further information please contact **Anne Ludbrook** (a.ludbrook@abdn.ac.uk) or **Paul McNamee** (p.mcnamee@abdn.ac.uk).



Insecure Employment and Mental Health: One Pathway in the Productivity Puzzle

The Stevenson-Farmer independent review into workplace mental health¹ estimated the loss to employers of poor mental health to be equivalent to 2% of GDP, mainly resulting from reduced labour productivity. Prior research has shown that the mental health outcomes of employees are significantly influenced by the extent to which they feel their employment is secure. Through the Good Work Plan, the UK Government aims to improve many aspects of job quality. One early proposal emerging from the plan is to provide the 'right to request' a more secure employment contract after a fixed period with an employer. At present, the debate regarding insecure employment largely sets the interests of employees and employers in opposition. Greater security for employees is often assumed to come at a cost to employers through reduced productivity, international competitiveness and ability to respond flexibly to changing market conditions. However, by improving mental health outcomes, policies which are effective in reducing insecure employment could benefit both employers and employees.



Our project, funded by the Productivity Insights Network, aims to quantify the incentive for employers to reduce insecure employment to achieve productivity benefits. We will link the Annual Survey of Hours and Earning with the Business Structure Database to form a large matched employer-employee dataset. Using this dataset, and building on recent literature, we aim to advance the understanding of insecure employment and productivity by identifying characteristics of the employers which could potentially benefit from reducing insecure employment. This project complements our ongoing research which values the benefits to employees, in terms of health-related quality of life, of limiting exposure to insecure employment.

This is joint work between **Daniel Kopasker** (HERU) and Professor Catia Montagna (Business School, University of Aberdeen). We have also partnered on this project with the Trades Union Congress and the Chartered Institute of Personnel and Development to provide a range of perspectives on the findings.

For further information please contact **Daniel Kopasker** (daniel.kopasker@abdn.ac.uk).

1. Stevenson, S. and Farmer, P. (2017) Thriving at work: The Stevenson/Farmer review of mental health and employers, London: Department of Health and Social Care.

Thriving at work

The Stevenson / Farmer review of mental health and employers

Recurrence of endometriosis: what should we do? The REGAL Trial



Endometriosis is a common, painful condition affecting one in ten women of childbearing age. It occurs when cells like those lining the womb grow outside it, causing internal bleeding, scarring and pain. Key hole surgery (laparoscopy) is commonly used to destroy areas of endometriosis. However, endometriosis returns in up to half of treated women within five years, and there is uncertainty about how best to treat women, particularly those who wish to preserve their fertility. Repeat surgery is invasive, expensive and risky, without guaranteeing a cure. A less invasive treatment is monthly or three monthly injections with Gonadotrophin Releasing hormone (GnRH) analogues. While effective in reducing pain, this type of hormonal treatment has generally only been used for up to a year because of the risk of side effects (hot flushes and night sweats) and concerns about osteoporosis. However, recent

research suggests that giving small doses of hormone replacement therapy (HRT) with GnRH analogues can reduce the risk of side effects. Funded by the National Institute for Health Research (NIHR), this new trial will assess the clinical and cost-effectiveness of long-term GnRH analogues with added HRT compared to conservative key hole surgery in women who experience recurrence of pain after surgery but who wish to preserve their fertility.

Research team: **Saraswat, L.** (NHS Grampian & University of Aberdeen), **S. Bhattacharya, K. Cooper** (Obstetrics & Gynaecology, University of Aberdeen), **T. J. Clark** (Birmingham Women's NHS Foundation Trust, A Horne (University of Edinburgh)), **C. Becker** (University of Oxford), **E Saridogan** (University College London Hospitals NHS Foundation Trust), **G Jones** (Leeds Beckett University) **G. Scotland** (HERU), **G. MacLennan, K. Gillies** (Health Services Research Unit (HSRU)) and **S. Vyas** (North Bristol NHS Trust)

For further information please contact **Graham Scotland** (g.scotland@abdn.ac.uk).

In September we welcomed **Mélanie Antunes** (right) who began her PhD studies under the *Aberdeen – Curtin Alliance PhD Programme* <http://aberdeencurtinalliance.org/>. Mélanie will research 'Public and patient preferences for social prescribing', under the supervision of **Marjon van der Pol** and **Verity Watson** from HERU, and Professor Suzanne Robinson and Dr Richard Norman from Curtin University (Western Australia). Mélanie carried out her MSc dissertation at HERU, and worked as a Research Assistant in HERU on a project looking at 'The location choices of General Practice in Scotland'.

Sadly, we said goodbye to Ramses Abul Naga, Nicolas Krucien and Maria Dimitrova, we wish them all the best.



Out and about over the summer

Over the summer, HERU researchers showcased their research to international audiences.

We had a presence at the International Health Economics Association (iHEA) 2019 Congress, in Basel, Switzerland. **Shelley Farrar** presented new pedagogical research looking at 'Using e-activities to enhance on-line learning in health economics'. Continuing our interest in the development and applications of discrete choice experiments in health economics, **Nicolas Krucien** presented research on 'To pay or not to pay? Investigating the impact of a fake monetary attribute on stated preferences' and **Verity Watson** on 'The influence of emotions on patients' treatment decisions: evidence from prostate cancer'. Verity also presented research looking at: 'Do General Practitioners in Scotland locate their businesses in line with economic models of spatial competition?' We also attended the European Health Economic Association (EuHEA) Student-Supervisor Conference, in Porto, Portugal. **Xuemin Zhu** presented on 'The stability of physicians' risk attitude' and **Ourega-Zoé Ejebu** on the 'Longitudinal analysis of parents' influence on children discretionary food choices'.



L-R: Ourega-Zoé Ejebu, Marjon van der Pol and Xuemin Zhu at the EuHEA Student-Supervisor Conference



Elisabet Jacobsen at the HTAi Conference

Reflecting our research around the health economics of dentistry, **Dwayne Boyers** attended the International Association of Dental Research conference in Vancouver, Canada. Dwayne presented his work from the *INTERVAL (Investigation of NICE Technologies for Enabling Risk-Variable-Adjusted Length) dental recalls trial*, and also on the 'Cost-effectiveness of oral splints for temporomandibular disorders (TMD)'. **Elisabet Jacobsen** attended the Health Technology Assessment International (HTAi) meeting in Cologne, Germany. This year the conference focused on ways forward for the HTA community now that we are approaching a new decade. Elisabet presented work on the 'The probabilistic incorporation of structural uncertainty in models'.

Ni Gao presented her PhD research 'Work or leisure: do time use patterns impact wellbeing among women living with a breast cancer diagnosis?' at the 41st International Association for Time Use Research Conference, Washington DC, USA.

Anne Ludbrook attended the Public Health England Annual Conference and participated in a session on prevention, presenting 'The upstream problem – impatient for results?', and taking part in a panel discussion.

Whilst in Canada delivering our expert Discrete Choice Experiment course, **Mandy Ryan** gave a seminar on 'Valuation in health economics: reflections of a UK health economist...and patient' at the University of Calgary O'Brien Institute for Public Health/Department of Community Health Sciences and **Verity Watson**, **Luis Loria-Rebolledo**, and **Mandy Ryan**, along with Deborah Marshall (University of Calgary), gave a seminar on 'Discrete choice experiments in health economics: what can they do for you?' at the Network of Alberta Health Economists (NOAHE) Health Economics and Technology Assessment Rounds.



Mandy Ryan at the University of Calgary O'Brien Institute for Public Health/Department of Community Health Sciences

The 3rd Economics of the Health Workforce Conference, held in conjunction with the International Health Economics Association (iHEA) Congress, was co-organised by **Diane Skåtun**. The conference brought together researchers interested in the micro-economic studies of the health workforce. Research presented utilised a variety of methods to extend our understanding of the behaviour of the healthcare workforce and how workforce organisation and associated behaviours impacts on patient care. We look forward to maintaining a network of researchers interested in this field within the iHEA Health Workforce Special Interest Group.

For further details please see: <https://www.healtheconomics.org/page/HWSIG#HWSIGConv>.



L-R: Diane Skåtun (HERU), Joanne Spetz (UC-SF), Michael Simon (University of Basel), Michelle McIsaac (WHO), Bianca Frogner (University of Washington) and Ulrike Muench (UC-SF)



Marjon with Professor Liam Delaney

Visitor to HERU

As part of our Visiting Scholar Scheme we welcomed Professor Liam Delaney in July. Liam is a Professor of Behavioural Economics at University College Dublin and leads the Behavioural Science group in the Geary Institute (<https://bsp.ucd.ie/>). His main research interests are using novel measures of wellbeing and time preferences to shed light on long-running questions about the determinants of health and wellbeing. Spending time in HERU provided a perfect opportunity for him to work with **Marjon van der Pol** on a project using qualitative research to better understand decision making in time preference experiments. The second part focuses on developing improved time preference measures based on the findings. Liam also met with HERU staff to explore opportunities for future collaborations.

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