

April 2016

Welcome to our April 2016 HERU Newsletter.

In this edition we feature a recent completed project funded by the Health Foundation looking at 'Preferences for support for self-management', and a new National Institute for Health Research (NIHR) funded project looking at 'Surgical interventions for kidney stones'. We also highlight HERU activity over recent months.

I hope you enjoy reading our newsletter. Further information is available on our website and you can see more frequent updates on the HERU Twitter page ([http://twitter.com/HERU\\_Abdn](http://twitter.com/HERU_Abdn)).

Professor Mandy Ryan  
Director, HERU



## HERU welcomes visits from Ayako Honda and Alison Pearce



Left to right: Alison & Ayako

Dr Ayako Honda, a senior researcher in the Health Economics Unit at the University of Cape Town, arrived in HERU in February to work on a research project looking at 'job preferences of medical doctors, nurses and midwives on working in remote areas of Senegal'. Ayako is collaborating on this project with Mandy Ryan and Nicolas Krucien from HERU. Following her visit to HERU Ayako said "My three-week visit to HERU from 14 February to 5 March has allowed me to work closely with Mandy and Nicolas on data analysis. I'm very grateful for strong methodological guidance that Mandy and Nicolas have given me and greatly appreciate the welcoming work environment and the friendly staff at the HERU. Coming from a hot summer in Cape Town, I also enormously enjoyed the beautiful winter scenery in Aberdeen!"

Dr Alison Pearce, post-doctoral researcher from the National Cancer Registry Ireland, visited HERU for two and a half weeks in March. Alison is collaborating with Verity Watson on a research project about cancer survivors' preferences for follow-up care. As part of the project Alison and Verity, together with researchers in Newcastle and Dublin, are exploring issues of agency and choice in follow-up care decisions.

## NEW Stated Preference Network

The Methods of Benefit Valuation team, together with academics from the Universities of Stirling and St Andrews, are co-ordinating a Scottish Stated Preference Network.

If you would like more information or to be added to our mailing list please contact [sspn@abdn.ac.uk](mailto:sspn@abdn.ac.uk).



## HERU DEDIPAC Workshop...

Professor Anne Ludbrook recently hosted a workshop for the DEterminants of Diet and Physical ACTivity (DEDIPAC) project. The workshop focussed on economic evaluation of policy and multi-component interventions relating to diet, physical activity and sedentary behaviour. The event was co-funded by a grant from the Medical Research Council for participation in an EU Joint Programming Initiative (Healthy Diets Healthy Life) Knowledge Hub. As part of this activity to develop research infrastructure, a draft toolbox for evaluation (and economic evaluation) has been developed and is currently being tested in a small number of projects. The workshop brought together DEDIPAC researchers (economists and non-economists) from across Europe to discuss further development and improvement of the economic evaluation component of the toolbox and to consider the application of the toolbox to specific projects.

More information on the DEDIPAC project is available at the DEDIPAC website (<https://www.dedipac.eu/>).

## Healthcare Improvement Scotland (HIS), HSRU and HERU co-sponsored 4th Annual Research Symposium



Above: Panel discussion chaired by Mandy Ryan

The topic of the symposium held on 17th March was 'Mobilising evidence to drive improvement: examining the role evidence can play in driving improvement in healthcare and beyond' and was introduced by Dr Sara Twaddle, Director of Evidence at HIS.

The day included a series of excellent presentations, including: 'Challenges in evidence-based improvement in health & social care'; 'At the intersection of improvement and active implementation: blending methodologies to achieve socially significant outcomes'; 'Lessons from an evaluation of the venous thromboembolism (VTE) and sepsis improvement collaborative'; and 'Using, building and disseminating research for improvement in health care'. Also, a series of three-minute virtual poster presentations were made. The afternoon included a panel session with all plenary presenters, chaired by Mandy Ryan. The event concluded with a summary of the day and thoughts going forward, and the presentation of best virtual poster by Marion Campbell of the University of Aberdeen. Delegates attending from HERU were Mandy Ryan, Shona Christie and Aileen Neilson. The HERU stand provided delegates the opportunity to learn more about HERU.

## Congratulations on PhD completions...



We would like to congratulate **Rodolfo Hernández** who has successfully completed his PhD. Rodolfo's PhD investigated alternative ways to incorporate willingness to pay (WTP) estimates from discrete choice experiments (DCE) into decision analytic models to conduct cost-benefit analysis. He used a discrete event simulation model and a number of alternative econometric specifications (i.e. conditional logit, mixed logit in preference and WTP-spaces) and his case study involved monitoring individuals with ocular hypertension at risk of developing glaucoma. Conducting the cost-benefit analysis in this manner allowed consideration of factors beyond the health related quality of life factors that are commonly used in standard cost-utility analysis for health care decision making in the UK.

As part of the Assessment of Technologies theme in HERU, Rodolfo is currently involved in two randomised controlled trials - the PURÉ randomised controlled trial on the clinical and cost-effectiveness of surgical interventions for stones in the lower pole calyces of the kidney; and a randomised controlled trial comparing the clinical effectiveness and cost-effectiveness of laparoscopic cholecystectomy with observation/conservative management for preventing recurrent symptoms and complications in adults with uncomplicated symptomatic gallstones (C-GALL). Rodolfo also contributes to Technology Assessment Reviews in HERU and is looking to further explore the use of DCEs and WTP to conduct cost-benefit analysis using clinical trials and decision models.



We also congratulate **Sebastian Heidenreich**, who has successfully passed his PhD viva. In his PhD research, Sebastian has explored 'why' survey respondents in a discrete choice experiment (DCE) do not consider all information that is presented to them (i.e. attributes of health care alternatives). The findings show that analysts should distinguish between information that is not valued by respondents and information that is ignored to simplify the survey. Not distinguishing between these two reasons for respondents to ignore information in a DCE is found to result in misleading welfare conclusions.

Sebastian has also been awarded a two-year post-doctoral fellowship within HERU. During this time he will be involved in a DCE as part of the MUNROS project, write-up papers from his PhD and start exploring heterogeneity in respondents' understanding of the cost attribute in health DCEs. Sebastian will also be involved in revamping the HERU DCE workshop and in the formation of the Scottish Stated Preference Network (SSPN).

## COMPLETED PROJECT: Substance or style? Valuing aspects of personalisation of the support for self-management

Personalisation of healthcare delivery is one of the tenets of 21st century health services and is fundamental to the ethos of primary care. However, personalisation is a complex and multifaceted construct; for example, which aspects of personalised care do patients value most, and how much is one aspect valued more than another?



In a Health Foundation funded project we used a discrete choice experiment (DCE) to assess the value that people with long term conditions place on different aspects of personalisation. The DCE requires respondents to make trade-offs between different aspects (or attributes) of support for self-management. The context was the support people receive for self-management, firstly for chronic pain, then in a replication study, for chronic lung disease.

The DCE, developed through focus groups and think-aloud studies, included four attributes: information ("relevant to you" vs. "the same for everyone"); communication style ("friendly and personal" vs. "neutral professional"); situation relevance ("makes suggestions which fit your situation" vs. "takes little account of your situation"); and what matters in life ("works with you on what you want to get from life" vs. "seems to think everyone wants to get the same from life"). A cost attribute was included so that willingness to pay (WTP), a monetary measure of value, could be estimated for all attributes. Respondents to the main DCE came from individuals with self-reported chronic pain, identified from an online panel. A replication study with patients with breathlessness due to chronic lung disease was conducted to test generalisability of results to different context.

For chronic pain we found positive valuations for increased personalisation of all four attributes. Greater personalisation on the attributes relating to situation relevance (£15.51) and what matters in life (£14.10) were valued most highly; tailored information was valued less (£10.86) and more friendly communication valued least (£3.46). The replication study in patients with breathlessness due to chronic lung disease showed very similar results.

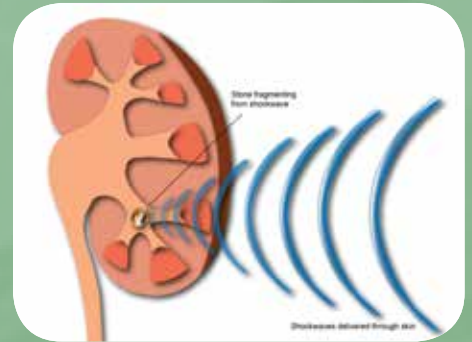
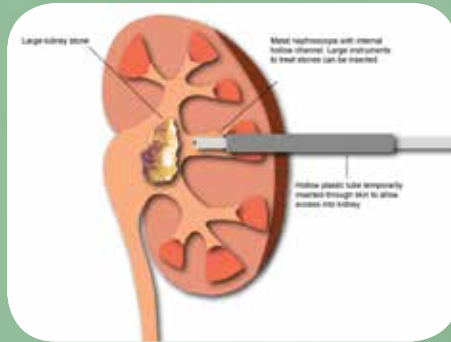
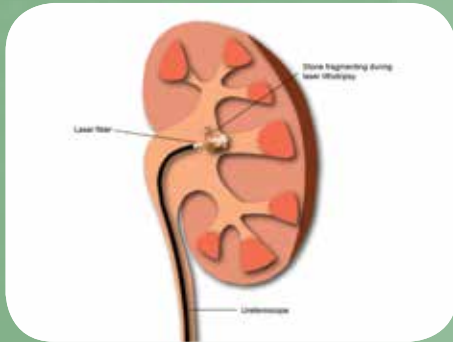
The direction of effects (with situation-relevance and what matters in life being most highly valued) may not surprise researchers of person-centred healthcare, but this demonstration of the magnitude of effect is new, striking and consistent across two conditions. It should lead providers of support for self-management to rethink how person-centred care is provided. Person-centred healthcare must emphasise the substance of personalisation and not just the style.

Research Team: Chris Burton and Alison Elliott (Academic Primary Care, University of Aberdeen); Vikki Entwistle and Terry Porteous (Health Services Research Unit, University of Aberdeen); Nicolas Krucien and Mandy Ryan (HERU).

For more information on this study contact Nicolas Krucien ([n.krucien@abdn.ac.uk](mailto:n.krucien@abdn.ac.uk)) or Mandy Ryan ([m.ryan@abdn.ac.uk](mailto:m.ryan@abdn.ac.uk)).

# NEW PROJECT – The clinical and cost-effectiveness of surgical interventions for stones in the lower pole calyces of the kidney: the PURÉ Randomised Controlled Trial (RCT) study

Kidney stone disease is very common and although stones in the kidney do not always cause problems most need treatment. They can result in pain, infection and kidney failure, with burden to patients, the NHS and society. There are three treatment options in the NHS for stones that occur in the lower part of the kidney: 1) Flexible ureterorenoscopy with laser lithotripsy (FURS) - a small telescope (ureteroscope) is passed into the kidney via the urethra, bladder and ureter and is used to directly visualise the stone, a laser beam breaks the stone into pieces; 2) Percutaneous nephrolithotomy (PNL) - a hole is made in the skin, a tube is inserted into the kidney. A telescope (nephroscope) is then inserted into the kidney via the tube and the stone is either pulled out or broken into smaller pieces using a laser or pneumatic energy; 3) Extracorporeal shockwave lithotripsy (ESWL) - an external acoustic pulse, called a shock-wave, is generated outside the body and focused onto the kidney stone, causing it to fragment; the pieces are passed down the renal tract spontaneously.



There is uncertainty around which of these treatments is best at removing the stone and which provides the best value for patients and the NHS. Each of these treatments have advantages and disadvantages (benefits and harms) and there is very little good quality data from studies that have directly compared these treatments. This study will randomly allocate 522 patients with smaller stones (diameter  $\leq 10$  mm) to be treated with either FURS or ESWL and 522 patients with larger stones ( $10 \text{ mm} < \text{diameter} \leq 25 \text{ mm}$ ) to be treated with either FURS or PNL, with each participant followed-up for 1 year. The study will cover a network of UK hospitals over 60 months.

The primary outcome of the study is the generic health status throughout the 12 weeks post intervention as measured by EQ-5D-5L based Quality Adjusted Life Years. In addition, pain experienced, additional treatments needed, complications and the costs of treatment to patients and the NHS will be measured. This study includes full economic evaluation: a within trial analysis using incremental cost per QUALITY ADJUSTED LIFE YEAR, gained at 12 months post-randomisation, as the economic primary outcome will be conducted. In addition to the within trial analysis, a Markov Model will be considered in order to extrapolate the analysis beyond the RCT follow-up period. The perspective of the economic analysis will be that of the NHS and personal social services (e.g. community services).

The PURÉ study commenced in December 2015 and is funded by the National Institute for Health Research (NIHR) and is expected to report results at the end of 2020. For further details about this study please see: <http://www.abdn.ac.uk/heru/research/assessment-of-technologies/chart/pure-rct/> or contact Rodolfo Hernández at: [r.a.hernandez@abdn.ac.uk](mailto:r.a.hernandez@abdn.ac.uk).

## International Visiting Research Scholar Dr Verity Watson

In September 2015, **Verity Watson** was an International Visiting Research Scholar to the Peter Wall Institute for Advanced Studies at University of British Columbia (UBC), Canada. During her visit Verity collaborated with Dr Dean Regier from the British Columbia Cancer Research Centre and School of Population and Public Health at UBC. During her time in Canada, Verity and Dean continued an on-going project on response certainty and data quality in survey responses and developed a new project on using methods of experimental economics to understand stated preference responses. This new work builds on Verity's existing experimental economics research that uses the Scottish Experimental Economics Lab (SEEL) in the College of Arts and Social Science at the University of Aberdeen.



## Capacity Building

### Postgraduate Certificate in Health Economics (Distance Learning)

This course commenced again in October 2015 with 22 new students enrolled. Students are from Scotland (6), England/Wales (8), other European countries (1) and overseas (7). For more information on the course for 2016/17 see: <http://www.abdn.ac.uk/heru/teaching/home.php>

### MSc in Applied Economics – Health Pathway

Applications are invited for our new Health Pathway within the MSc Applied Economics. The Pathway in Health Economics combines a strong background in economic and economic policy with a specialisation in the economics of health. Gavin Mooney Scholarships are available.

<http://www.abdn.ac.uk/heru/courses/msc/>

### Discrete Choice Experiment (DCE) Expert Workshops – Aberdeen & Canada

Dates for forthcoming workshops are:

**Aberdeen: 4th-6th November 2016**

**Canada: 5th-8th February 2017**

See: <http://www.abdn.ac.uk/heru/courses/workshops/>

## Research Support Awarded.....

Along with colleagues in the Health Services Research Unit (HSRU), **Rodolfo Hernández** has been awarded a National Institute for Health Research (NIHR) project entitled 'The clinical and cost effectiveness of surgical interventions for stones in the lower pole calyces of the kidney: the PuRE Randomised controlled trial'. This project will run for five years with a total awarded of £1.8M.

Dr I Ahmed, and other colleagues in HSRU, have recently secured funding of £1.3M from NIHR to undertake 'A randomised controlled trial comparing the clinical effectiveness and cost-effectiveness of laparoscopic cholecystectomy compared with observation/conservative management for preventing recurrent symptoms and complications in adults with uncomplicated symptomatic gallstones (C-GALL)'. **Rodolfo Hernández** is a co-applicant on this 4<sup>1/2</sup> year study.

## Selection of Presentations.....

Several HERU staff and PhD students presented at the recent Health Economists' Study Group (HESG) Meeting held in Manchester in January:

- **Chua, G.N., Ryan, M.**, Bond, C. and Porteous, T. 'External validity of discrete choice experiments: findings from a field experiment'.
- **Mc Morrow, L., Ludbrook, A.** and Macdiarmid, J.I. 'Can time preference help explain variations in diet quality?'.
- **Tsuchiya, A. and Watson, V.** 'Re-thinking the different perspectives that can be used when eliciting preferences in health'.

HERU staff also presented at the Faculty of Public Health, Scottish Conference: Securing Scotland's Health, Peebles Hydro:

- **Ejebu, O.-Z.**, Douglas, F., Garcia, A., MacKenzie, F., Whybrow, S., **McKenzie, L., Ludbrook, A.** and Dowler, E. 'Food poverty in Scotland: a preliminary study of prevalence and nature using secondary data'.
- Douglas, F., **Ejebu, O.-Z.**, Garcia, A., MacKenzie, F., Whybrow, S., **McKenzie, L., Ludbrook, A.** and Dowler, E. 'Looking beyond food banks: a qualitative study of food poverty in Scotland'.

## Engaging the public...

One of our PhD students, **Liam Mc Morrow** took part in a public engagement event by presenting 'Nudging people to make better decisions: is it ethical?' at a PechaKucha event in Aberdeen. PechaKucha means 'chit chat' in Japanese and refers to the format where presenters have 20 slides and 20 seconds to talk about each slide making short, fast moving presentations of 6 minutes and 40 seconds. PechaKucha Nights were developed by two architects in Japan and bring together people in a relaxed, simple and enjoyable format to meet, network and share their ideas and work in public. HERU are keen to use this medium to promote public engagement with our research.



HERU is supported by the Chief Scientist Office (CSO) of the Scottish Government Health and Social Care Directorates. The views expressed are not necessarily those of the CSO.

[www.abdn.ac.uk/heru](http://www.abdn.ac.uk/heru)



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