In this newsletter we highlight the ongoing work that has been undertaken as part of the Department of Health's Policy Research Unit in Economic Evaluation of Health and Care Interventions (EERPU’s) work programme. EERPU is a collaboration between the School of Health and Related Research, University of Sheffield and the Centre for Health Economics, University of York. Directed by Professor John Brazier (University of Sheffield) with Professor Mark Sculpher (University of York) as his deputy, the aim of the unit is to assist policy makers in the Department of Health to improve the allocation of resources in health and social care.

Whilst working on several other topics, the most pressing work in the last six months has been research in support of the Department of Health in the development of the new value based pricing (VBP) system. The two main parts to this work have been the development of burden of illness weights and the analysis of the relationship between health-related quality of life and wider social benefits, such as time taken off work. Dissemination of this work will proceed, although the precise role that it will have in the VBP system is unknown.

Other developments in the last six months have been the delivery of bespoke training packages for three sets of clients covering a mix of topics including systematic reviewing, modelling, utility mapping and survival modelling. Rachel Archer (r.archer@shef.ac.uk) is now leading this increasingly important area of activity. Our short course packages are still continuing, with new courses on simulation modelling and literature searching to identify model parameters in development. For any short course enquiries you can contact HEDS’ Claire Beecroft (C.Beecroft@sheffield.ac.uk) who leads the ScHARR Short Course Unit.

Finally, the HEDS blog has continued to highlight our work and important policy issues from elsewhere. It has now passed the 8,000 visitor mark and 102 different countries. So if you can’t wait another six months for another newsletter, keep an eye on us at http://scharrheds.blogspot.co.uk/

VALUE-BASED PRICING: HEDS’ CUTTING-EDGE POLICY-ORIENTED RESEARCH

HEDS has been involved in policy-oriented research on the value-based pricing (VBP) of drugs. In November 2010, the government announced changes to the way drugs would be priced in the UK. Under the current system, prices are arrived through negotiations but under the new proposal, prices will reflect the value of the drugs to society. A premium could be paid for drugs that treat illnesses which inflict a high burden of illness (BoI) to those affected and also for drugs that offer big health improvements. It is also anticipated that the pricing of drugs would take a societal perspective whereby costs and benefits falling beyond the NHS would also be taken into consideration.

(continued on page 2)
Dixon et al (2011), in a discussion paper, highlighted the challenges of the new pricing system. The main message was that one needed to proceed with caution. The paper highlighted a number of issues that were overlooked in the consultation that could lead to unintended results or consequences. The underlying feature of the new system is that it should balance socially-valued health gain and wider benefits from the new medicine with socially-valued losses and wider negative impact from the displaced activities.

Since the discussion paper, HEDS has undertaken a number of projects in order to generate preference weightings to be used within VBP. The first project focused on elicitation of societal preferences to establish whether society is willing to pay a premium for drugs to treat diseases that inflict high QoL and for drugs that offer high QALY gains. An online survey of over 6,000 respondents was carried out and the results were used to generate weights through econometric modelling. It was an innovative piece of work designed to provide policy-relevant results to accommodate the timeline of Department of Health (DoH). It is not yet clear how these results would be used by DoH in 2014 when VBP comes into force. In the meantime, work is also underway at Sheffield and York Universities to assess the impact of the proposed methodology, and to investigate the impacts of possible weightings by applying them to models submitted to NICE.

The second applied piece of work for VBP revolved around wider social benefits. The project was aimed at providing estimates of informal care (carer and productivity) and formal care resource use by patient characteristics. The premise is that if an illness necessitates a lot of informal care and causes losses in productivity and use of formal care, then a premium may be paid for a drug to treat such an illness. Empirical estimates have been provided to DoH by HEDS for use in the VBP of drugs. HEDS recognises that there are massive challenges in applying results from a research project directly to a policy environment which impacts on a number of stakeholders all with varied interests.

Koonal Shah (pictured), a PhD student at HEDS received the award of ‘Outstanding Presentation by a Young Investigator’ at the European SMDM Conference over the summer for his policy-oriented work. The presentation was based on an empirical study of public preferences on valuing health at the end of life (for more on Koonal’s work, visit www.nicedsu.org.uk/End-of-Life(2474943).htm). This study used similar methods to the elicitation of society’s preferences for VBP.

The work on VBP was commissioned by DoH through the Policy Research Unit in Economic Evaluation of Health and Care Interventions (EERPUI) headed by its director, Professor John Brazier and its deputy director, Mark Sculpher from the University of York. HEDS is, once again, making its mark on cutting-edge policy-oriented research.
Randomised controlled trials (RCTs) are conducted according to a protocol with a defined period of follow-up and an assessment of the relative cost-effectiveness of technologies is typically made based on mean quality-adjusted life-years and mean costs over the lifetime of patients. Therefore, the estimation of lifetime costs and benefits necessitates the extrapolation of evidence collected in an RCT beyond its originally intended purpose.

A team from the Universities of Sheffield, York and Cambridge recently completed an MRC funded project reviewing methods of extrapolating evidence from randomised controlled trials (RCTs) for use in economic evaluation models. They reviewed three sources of literature: published health technology assessments; publications in the scientific journals specifically involving an assessment of cost-effectiveness; other publications, including scientific journals and books, about methods of extrapolation that may have application in the context of economic evaluations.

The review indicates that the way in which evidence from RCTs is extrapolated depends on a variety of factors, including the type of outcome measure. The findings of the review are structured according to whether the outcome measure is time-to-event, longitudinal, a utility, costs and resource use, or other uncertain future events. In addition, the review discusses the extent to which the evidence is validated internally with respect to the evidence and externally with respect to clinical plausibility.

A report of the findings will be published shortly. In addition, material will also be presented at workshops, including ISPOR 15th Annual European Congress, November 2012 and MRC Hubs for Trials Methodology Research, January 2013.

**CONFERENCES**

We will be exhibiting at the next ISPOR Annual European Congress meeting in Berlin from 5-7 November 2012. Please visit us at stands 53 and 54.

HEDS staff are participating in the following workshops and poster presentations:

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If you are unable to attend these or any other conference in which we have attended recently at please feel free to browse our website below to look at our posters. [http://www.shef.ac.uk/scharr/sections/heds/posters](http://www.shef.ac.uk/scharr/sections/heds/posters).
**Feedback**
HEDS would appreciate your feedback on this newsletter. Please email: heds-newsletter@shef.ac.uk
We look forward to hearing from you.

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**HEDS Teaching & Training**

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**TRAINING COURSES FOR ACADEMICS & PROFESSIONALS**

**Utility Data for Health Technology** 14th & 15th March 2013

Agencies from around the world, such as NICE, are increasingly using QALYs in their assessments of the cost effectiveness of health care interventions. This raises questions about the measurement of health, the valuation of health and whose values to use. It creates additional challenges for meeting requirements of a ‘reference case’ set of methods that may not be appropriate in all circumstances.

This course outlines the practical requirements of measuring utility and obtaining utility data for health technology assessment for agencies such as NICE. The course details both how to measure utility to meet the current requirements of NICE and recent research in utilities.

Further details and booking information can be found on our website: http://www.shef.ac.uk/scharr/sections/heds/shortcourses

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**HEDS MSC COURSES**

Applications for HEDS post-graduate courses are currently welcomed. For information on all courses, visit http://www.shef.ac.uk/scharr/sections/heds/teaching

**MSc International Health Technology Assessment, Pricing & Reimbursement**

This course offers the entire range of knowledge and skills needed by those developing health technologies for market, or involved in commissioning or evaluating health technologies. Those working in the pharmaceutical, medical devices, or diagnostics industries will gain a comprehensive understanding of the processes and contexts of markets, pricing, and customers needed for new product development in multiple jurisdictions. The course is entirely online by distance learning, therefore it will suit people with busy work commitments, and is also highly accessible to an international audience as there are no travel, residential or visa requirements. For further information, visit http://www.shef.ac.uk/scharr/prospective_students/masters/ihtapr

**MSc Health Economics and Decision Modelling**

This MSc is the only programme in the UK dedicated to the practical application of mathematical modelling to inform healthcare decision making. It is a truly bespoke course, bridging the gap between the underlying theory and application of mathematical modelling for decision making and more traditional health economics. The course is ideal for students wishing to pursue a career as a professional health economist/modeller. For more information, or if you would consider undertaking sponsorship of a student, please go to our website www.sheffield.ac.uk/scharr/prospective_students/masters/hedm.

**MSc Economics & Health Economics**

This MSc programme is run jointly with the Department of Economics at the University of Sheffield. It is aimed at students who wish to pursue careers as applied economists in the health sector or who wish to continue with academic research. MSc Economics and Health Economics receives studentship funding from the National Institute for Health Research. The studentship is for full-time UK students, and covers the fees and a standard research council stipend. For more information on this course, visit http://www.shef.ac.uk/economics/prospectivetpg/courses/msc_economics_health.html