

# CHEME

Centre for Health  
Economics and  
Medicines Evaluation



PRIFYSGOL  
BANGOR  
UNIVERSITY



## WINTER 2013/14

### Welcome to the 2013/14 Winter newsletter of the Centre for Health Economics and Medicines Evaluation (CHEME)

In this issue, we focus on key achievements and research activities from the latter half of 2013 and early 2014. Highlights include, prize winning presentations by Emily Holmes and Paul Parham at the Dublin ISPOR conference, the publication of the King's Fund report on polypharmacy and the launch of the first short course on the use of public health economics.

We recently moved to new premises, Ardudwy, a former Bishop's house overlooking the Menai Bridge and Straits, thereby bringing together the research centres of the Institute of Medical and Social Care Research at the University's Normal Site. Visitors are always welcome; information on how to find us is on the back page.

#### **Dyfrig Hughes & Rhiannon Tudor Edwards**

CHEME CO-DIRECTORS

### INSIDE THIS ISSUE

- Upcoming events
- Spotlight on research
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CHEME's new home  
Ardudwy (*below*)  
and CHEME research  
group inside their new  
building (*above*)



## SPOTLIGHT ON RESEARCH...

### TREATMENTS FOR EPILEPSY

Epilepsy affects about 1% of the population yet with effective management, up to 70% of people with active epilepsy have the potential to become seizure-free. In collaboration with the Tony Marson and colleagues at the Walton Centre and the University of Liverpool, Dyfrig Hughes, Emily Holmes and Catrin Plumpton from CHEME have a programme of NIHR-funded research projects concerning the economics of epilepsy. These include a study of patient preferences for different treatment attributes, assessed using discrete choice experiments, a cost-effectiveness analysis of pharmacogenetic testing prior to treatment with carbamazepine, an economic evaluation of methods to improve medication adherence and a study of the differences between generic and branded antiepileptic drugs. The SANAD2 trial, which is currently recruiting ahead of target, aims to compare the effectiveness and cost effectiveness of levetiracetam and zonisamide versus standard treatments for epilepsy.

### MEASURING THE HEALTH, QUALITY OF LIFE AND WELL-BEING FROM IMPROVED HOUSING

Between £600 million and £2.4 billion is spent every year in the UK treating ill health related directly to poor housing (World Health Organisation, 2011). CHEME have partnered with Gentoo Green and Nottingham City Homes to

explore the impact of housing on health, quality of life and wellbeing. The Warm Homes for Health project will examine the application of standard and innovative health economics methods of economic evaluation to housing improvements for improving warmth, fuel efficiency and damp for 2000 housing improvement recipients in Sunderland and Nottingham. We aim to determine the cost-effectiveness of housing improvements with regards to health and quality of life of residents. Rhiannon Tudor Edwards and Nathan Bray from CHEME, with colleagues from Gentoo Green and Nottingham City Homes discussed this project at "Putting health at the heart of fuel poverty strategies - A special evidence summit on health, fuel poverty and cold homes" held at Westminster November 2013.

### EVALUATING SUPPORTING ACTIVITY ENGAGEMENT IN PEOPLE WITH HUNTINGTON'S DISEASE

ENGAGE-HD is a phase II evaluation of supporting activity engagement in people with Huntington's disease (HD) funded by the NIHR EME. HD is an inherited neurological disease which over time results in progressive problems with movement, thinking and behaviour. Symptoms usually develop between the ages of 30-50 years and include uncontrollable muscular movements, clumsiness, lack of concentration and short-term memory lapses. Changes in mood can include depression and anti-social behaviour. It is estimated that approximately 8,000 people in the

UK are affected by HD and very little is known about the economic costs of it. ENGAGE-HD is being led by Dr Monica Busse, Cardiff University with collaborators from Oxford, Bangor, Birmingham, Sheffield, Aberdeen and Southampton. Recruitment is due to begin in Spring 2014 and it is anticipated that 62 people with HD will be randomised to receive either a physical activity intervention or a social activity intervention over 16 weeks. The health economics component will involve costing both intervention arms and assessing the cost-effectiveness of both interventions using EQ-5D, ICECAP-A and HDQoL.

### KING'S FUND REPORT BY POLYPHARMACY

Policy, medical training and clinical practice have failed to adapt to a significant increase in the number of patients taking multiple prescription drugs, according to a new report published by The King's Fund and authored by CHEME's Clinical Senior Lecturer, Martin Duerden. The report argues that polypharmacy needs to be better understood and defined, and accompanied by more engagement with patients to ensure that medicines are taken in the way that prescribers intend. This may require compromise between prescribers and patients to ensure that patients feel confident in what they are taking and situations where medicines go unused or are wasted are avoided. Integrated care is now widely accepted as the way forward in caring for people living with multiple, complex, long-term conditions. Appropriate polypharmacy, or medicines optimisation, now needs to be similarly accepted as one of the ways in which we can deliver more coordinated care.





Emily Fargher and Paul Parham with their awards for best podium presentation overall and best podium presentation for new investigators, respectively at the 16th annual European congress of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) in Dublin.



Dyfrig Hughes presenting at the Costing Methodology within Clinical Trials Workshop, Oxford 2013

## STAFF NEWS

Congratulations to Carys Jones and Warren Linley who were both awarded their PhDs on “Application of the capability approach to health economics research involving informal carers of people with dementia” and “Reimbursement decisions for new medicines: exploration of the preferences of decision-makers and the public”, respectively.

Congratulations to Dyfrig Hughes who was elected as a Fellow of the British Pharmacological Society. BPS Fellows have demonstrated distinction and peer recognition in pharmacology.

*(Opposite page)* The ENGAGE-HD project Team from left Carys Jones, Dr. Monica Busse (Cardiff University), Prof. Helen Dawes (Oxford Brookes University), Prof. Kerry Hood (Cardiff University), Dr. Lori Quinn (Cardiff University) and Rhiannon Tudor Edwards

## UPCOMING EVENTS

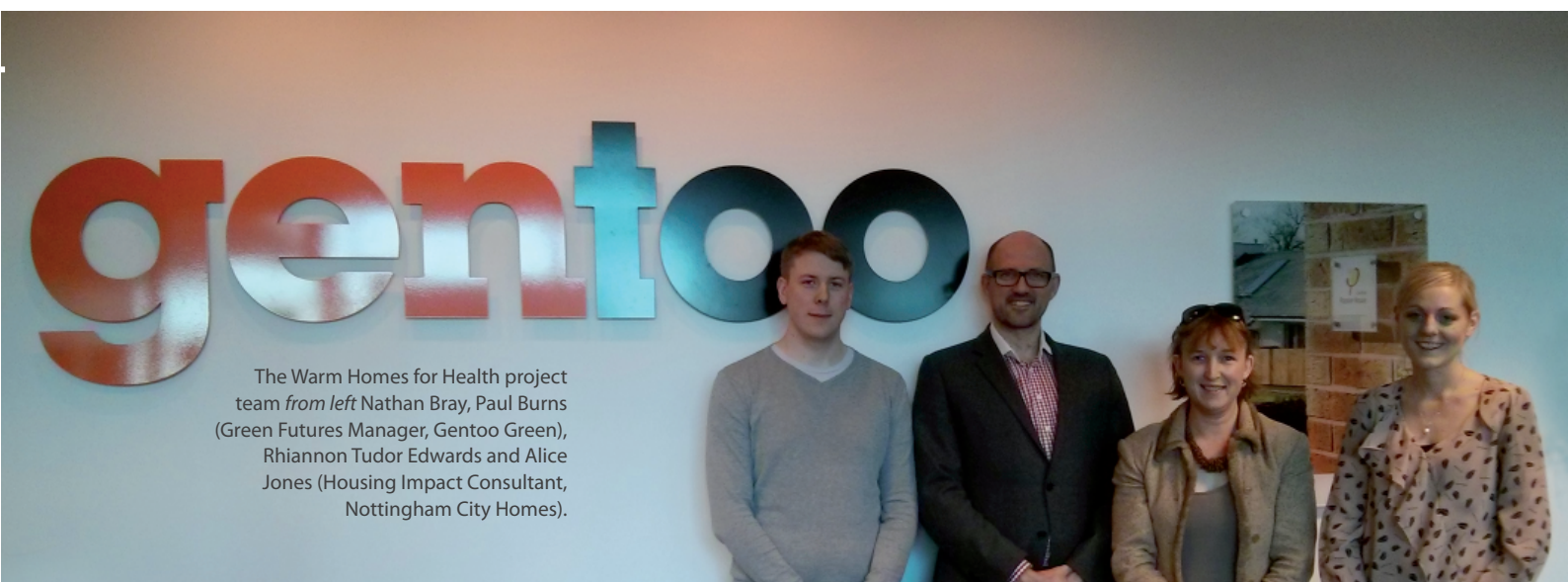
Bangor has launched a new short course in Applied Public Health Economics entitled “Health Economics for Public Health Practice & Research”, to be held on 15-17 April 2014.

This new short course builds on 20 years of our experience in teaching health economics to public health practitioners and those undertaking research in public health. It is designed to meet the needs of those wishing to gain an appreciation for public health economics, whether they are working in Public Health in the NHS, local government, academia, undertaking a MPH or preparing for Part A examination for Membership of the UK Faculty of Public Health. Course organiser Rhiannon Tudor Edwards also highlighted this course is a resource for health economists moving into the field of economic evaluations of public health interventions. See <http://cheme.bangor.ac.uk/> for more information.

## NEW FUNDING

CHEME is collaborating on a number of clinical studies:

- with University of Liverpool on their recent successful application to the NIHR to research embedding a human rights based approach to dementia care.
- with Paul Brogan at Great Ormond Street Hospital, MYPAN which is a clinical trial of mycophenolate mofetil versus cyclophosphamide for the treatment of polyarteritis nodosa in children, funded by Arthritis Research UK.
- with Moorfields Eye Hospital, London on two projects; ASCOT will assess the effectiveness and cost-effectiveness of using intraocular steroids during vitreoretinal surgery for open globe trauma, funded by NIHR HTA. CLARITY will explore the effectiveness and cost-effectiveness of using intravitreal aflibercept with panretinal laser photocoagulation for people with proliferative diabetic retinopathy, funded by NIHR EME.



The Warm Homes for Health project team from left Nathan Bray, Paul Burns (Green Futures Manager, Gentoo Green), Rhiannon Tudor Edwards and Alice Jones (Housing Impact Consultant, Nottingham City Homes).



## RECENT PUBLICATIONS...

- ⚙️ Ridyrd CH, Hughes DA; DIRUM Team. Taxonomy for methods of resource use measurement. *Health Econ*. 2014. doi: 10.1002/hec.3029.
- ⚙️ Ramanan AV, Dick AD, Benton D, Compeyrot-Lacassagne S, Dawoud D, Hardwick B, Hickey H, Hughes D, Jones A, Woo P, Edelsten C, Beresford MW; SYCAMORE Trial Management Group. A randomised controlled trial of the clinical effectiveness, safety and cost-effectiveness of adalimumab in combination with methotrexate for the treatment of juvenile idiopathic arthritis associated uveitis (SYCAMORE Trial). *Trials*. 2014 Jan 9;15(1):14.
- ⚙️ Jenkinson MD, Gamble C, Hartley JC, Hickey H, Hughes D, Blundell M, Griffiths MJ, Solomon T, Mallucci CL. The British antibiotic and silver-impregnated catheters for ventriculoperitoneal shunts multi-centre randomised controlled trial (the BASICS trial): study protocol. *Trials*. 2014 Jan 3;15(1):4.
- ⚙️ Charles JM, Bywater TJ, Edwards RT, Hutchings J, Zou L. Parental depression and child conduct problems: evaluation of parental service use and associated costs after attending the Incredible Years Basic Parenting Programme. *BMC Health Serv Res*. 2013 Dec 18;13(1):523.
- ⚙️ Holmes E, Plumpton C, Duerden M, Marson T, Hughes D. New advice on switching antiepileptic drugs might be a false economy. *BMJ*. 2013 Dec 16;347:f7471.
- ⚙️ Dawoud D. Time for more focus on pharmacoconomics. *Pharm J*. 2013 Jul 6;291:11.
- ⚙️ Hilgsmann M, Salas M, Hughes DA, Manias E, Gwady-Sridhar FH, Linck P, Cowell W. Interventions to improve osteoporosis medication adherence and persistence: a systematic review and literature appraisal by the ISPOR Medication Adherence & Persistence Special Interest Group. *Osteoporos Int*. 2013 Dec;24(12):2907-18.
- ⚙️ Hurt CN, Roberts K, Rogers TK, Griffiths GO, Hood K, Prout H, Nelson A, Fitzgibbon J, Barham A, Thomas-Jones E, Edwards RT, Yeo ST, Hamilton W, Tod A, Neal RD. A feasibility study examining the effect on lung cancer diagnosis of offering a chest X-ray to higher-risk patients with chest symptoms: protocol for a randomized controlled trial. *Trials*. 2013 Nov 26;14:405.
- ⚙️ Edwards RT, Linck P, Hounsome N, Raisanen L, Williams N, Moore L, Murphy M. Cost-effectiveness of a national exercise referral programme for primary care patients in Wales: results of a randomised controlled trial. *BMC Public Health*. 2013 Oct 29;13(1):1021.
- ⚙️ Edwards RT, Charles JM, Lloyd-Williams H. Public health economics: a systematic review of guidance for the economic evaluation of public health interventions and discussion of key methodological issues. *BMC Public Health*. 2013 Oct 24;13(1):1001.
- ⚙️ Russell IT, Edwards RT, Gliddon AE, Ingledew DK, Russell D, Whitaker R, Yeo ST, Attwood SE, Barr H, Nanthakumaran S, Park KG. Cancer of Oesophagus or Gastricus - New Assessment of Technology of Endosonography (COGNATE): report of pragmatic randomised trial. *Health Technol Assess*. 2013 Sep;17(39):1-170.
- ⚙️ Gwady-Sridhar FH, Manias E, Lal L, Salas M, Hughes DA, Ratzki-Leewing A, Grubisic M. Impact of interventions on medication adherence and blood pressure control in patients with essential hypertension: a systematic review by the ISPOR medication adherence and persistence special interest group. *Value Health*. 2013 Jul-Aug;16(5):863-71.
- ⚙️ Waldock J, Chandra NL, Lelieveld J, Proestos Y, Michael E, Christophides G, Parham PE. The role of environmental variables on *Aedes albopictus* biology and chikungunya epidemiology. *Pathog Glob Health*. 2013 Jul;107(5):224-41.
- ⚙️ Waldock J, Parham PE, Lelieveld J, Christophides GK. Climate and Human Health: The Impact of Climate Change on Vector-Borne Diseases. *Pathog Glob Health*. 2013;107:387-92.

More information on research, teaching and NHS support activities is available from our website: [cheme.bangor.ac.uk](http://cheme.bangor.ac.uk) or contact our administrators Sioned Edwards: [s.edwards@bangor.ac.uk](mailto:s.edwards@bangor.ac.uk) and Ann Lawton: [a.b.lawton@bangor.ac.uk](mailto:a.b.lawton@bangor.ac.uk)



### HOW TO FIND US

CHEME is based on the Normal Site situated between Bangor and the Isle of Anglesey along the A5.

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