

Health and Care Economics Cymru

We collaborate with researchers, health and social care practitioners, local authorities, national government, charities and community groups to provide world-class expertise, support and training in health economics

WELCOME TO OUR WINTER 2020/21 NEWSLETTER

Welcome to the Winter 2020/21 newsletter of the Centre for Health Economics and Medicines Evaluation (CHEME).

These are very challenging times as we adjust to unfamiliar situations in the midst of a pandemic. At CHEME, we've continued research activities insofar as this has been possible, & are developing new projects in response to COVID-19.

Further information about our research and teaching activities is available from our website (cheme.bangor.ac.uk) or by contacting our administrator Ann Lawton (cheme@bangor.ac.uk).

To keep up-to-date with our news and activities, follow us on Twitter @CHEMEBangor

Professors Dyfrig Hughes & Rhiannon Tudor Edwards
CHEME co-directors

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PRIZES AND AWARDS

CHEME staff were delighted to be part of the success of Health and Care Economics Cymru (co-directed by Prof. Rhiannon Tudor Edwards), funded by Welsh Government through Health and Care Research Wales, as winners of the **Best Virtual Exhibition Stand Award** at the Health and Care Research Wales conference in October. Please see our new website and animation introducing health economics (<https://healthandcareeconomics.cymru/>).

CHEME researchers were also part of the 'Co-producing Sustainable Adult Kidney Services – learning from the Dialysis Options and Choices study' research team that won the **Public Involvement Achievement Award** at the recent Health and Care Research Wales conference (<http://www.researchwalesconference2020.com/awards>).

Dr Emily Holmes was awarded the **Jean-Michel Metry Poster Prize** at the International Society for Medication Adherence (ESPACOMP) meeting for her presentation on 'Patient and public engagement in medication adherence research'. This work was in collaboration with Prof Dyfrig Hughes and Dr Dave Gillespie (Cardiff University), with the support of the PRIME Centre Wales lay member group SUPER.

Welsh Health Economists' Group (WHEG) Annual Meeting via Zoom for 2020

The long tradition of WHEG annual meetings provides a valuable opportunity for health economists working in academic units or public sector organisations across Wales to discuss current activities and plans with regard to research, teaching and policy support.

At the 2020 annual meeting, held online, Professors Deb Fitzsimmons and Rhiannon Tudor Edwards led the celebration of the career of Emeritus Professor Ceri Phillips, Swansea University. Professor Phillips then expanded on the introduction and emphasised in his presentation *'Approaching the fair innings threshold'* that prudent healthcare is still at the core of *'value-based healthcare'* in Wales. The second guest speaker was Dr Brendan Collins, Head of Health Economics, Welsh Government, who presented on the Government's approach to managing COVID-19, including the *fire-break* lockdown. At the meeting, there were also three internal speakers from Swansea University and Bangor University. Dr Mari Jones from the Swansea Centre for Health Economics (SCHE) presented on *'The cost-effectiveness of the use of radiotherapy in addition to stent placement for patients with advanced stage oesophageal cancer'*, and Dr Katherine Cullen from SCHE presented her research on *'The costs of hepatocellular carcinoma for NHS England: A registry-based analysis'*. From CHEME, Dr Emily Holmes provided details of her Senior Research Award Fellowship regarding antibiotic resistance and patient behaviour (more information >>).



Prof Ceri Phillips



Behavioural research to help reduce antibiotic use in Wales

Dr Emily Holmes, Senior Research Fellow at Bangor University's School of Health Sciences, has been awarded a £352,254 Health Research Fellowship to conduct research on Antimicrobial Resistance. This Fellowship, funded by Health and Care Research Wales, aims to build capacity in health research by supporting individuals to become independent researchers and to undertake high-quality research projects. Dr Holmes will be conducting a 5-year research project to explore *'The Economics of Rapid Diagnostics to reduce Antibiotic Prescribing in NHS Wales (TRaDe)'*. The TRaDe project will gather public and professional opinion on quick and easy tests that can be performed during a clinic appointment (e.g. finger prick) and help to identify whether a patient needs antibiotics. It will assess how peoples' views and behaviour affect the cost-effectiveness of these tests and make recommendations on the best way to organise testing services to reduce antibiotic prescribing in NHS Wales. A growing number of infections, such as pneumonia, are becoming hard to treat, as the antibiotics used to treat them become less effective. This leads to longer hospital stays, higher medical costs and more people dying. Tackling antimicrobial resistance is a Welsh Government priority. In Wales, approximately 3 in 10 prescriptions dispensed in primary care are for an antibiotic, but over 20% of these may be unnecessary. Reducing unnecessary prescribing is essential but identifying bacterial infection can be challenging. The UK Action Plan to tackle antimicrobial resistance, developed collaboratively with devolved administrations, details an urgent need to support access to rapid diagnostic tests at the point of care. By learning more about peoples' preferences for testing and antibiotic use we can find out the best way to test while ensuring good value for money for the NHS.

World Antimicrobial Awareness Week: 18-24th November 2020 'United to preserve antimicrobials'

Antimicrobial resistance (AMR) is a global challenge to human and animal health requiring an interdisciplinary approach to research. Within CHEME, we have a growing portfolio of studies involving HTA, pharmacoeconomics, and behavioural economics, applied to antibiotic use and the threat of AMR. For example:

'Prophylactic antibiotics to prevent recurrent lower respiratory infections in children with neurological impairment (PARROT)'. CI—Paul McNamara (University of Liverpool); PI—Prof. Dyfrig Hughes, NIHR HTA 2018-2023.

'The cystic fibrosis anti-staphylococcal antibiotic prophylaxis trial (CF-START)', a randomised registry trial to assess the safety and efficacy of flucloxacillin as a long-term prophylaxis agent for infants with CF. CI—Kevin Southern (University of Liverpool); PI—Prof. Dyfrig Hughes, NIHR HTA 2016-2024.

'The Economics of Rapid Diagnostics to reduce Antibiotic Prescribing in NHS Wales (TRaDe)'. CI—Dr Emily Holmes, Health and Care Research Wales Health Research Fellowship 2020-2025.

During the World Antimicrobial Awareness Week we welcomed colleagues across Bangor University to join a special interest group (SIG) on the theme of antimicrobial resistance research.

Modelling the cost-effectiveness of the PPH Butterfly—a novel medical device for management of postpartum haemorrhage compared with routine care in the UK



In 2019 the WHO highlighted the importance of protecting the nation's supply of life-saving blood products if faced with an outbreak of infectious disease. Although giving blood is considered 'essential travel', as it helps protect vulnerable people, COVID-19 will have likely had a detrimental impact on the collection and use of blood products. We have recently finished a study (in collaboration with Liverpool Women's Hospital) which aims to help improve the management of post-partum haemorrhage (PPH) through the use of a novel medical device called the PPH Butterfly, which is designed to compress the uterus. Following childbirth, significant blood loss can lead to a range of negative outcomes including the need for surgical intervention under anaesthetic, stays in high dependency or intensive care units and transfusion of blood products, all of which are resources of a very limited nature and expensive. Results from the stage II clinical trial indicate that using the PPH Butterfly resulted in fewer cases of serious haemorrhage, a reduction in blood transfusion, and an increase in breastfeeding when compared with an historical control group. However, there was also an increase in the number of other treatments received following PPH Butterfly. The cost of the device is yet to be determined, however, our pilot economic analysis indicates that as a low-cost device it may offer value for money for the NHS. What is yet to be explored is whether the PPH Butterfly could be cost-effective in low and middle-income countries where mortality rates following childbirth are much higher than in the UK.



Abraham Makanjuola

Abraham is a prize-winning aspiring researcher

Abraham Makanjuola, a KESS2 Masters by Research Student supervised by Dr Mary Lynch and Dr Llinos Haf Spencer, recently won the **Best Oral Presentation Award** at the Aspiring Researchers Conference, organised by the Bangor University Doctoral School. Abraham is conducting a mixed-methods study applying contingent valuation methods (CVM) to explore the skill and training needs of social prescribing link workers in Wales. Abraham received high praise from the conference organisers: *"This was a lively and intriguing presentation. Your audience was clearly led through your research and you raised a number of lines of thinking of both a sociological and health-sector nature. Very engaging."* Abraham was awarded a certificate and £50 Amazon voucher.

RESEARCH FUNDING AWARDS

Dr Daniel Hill-McManus was awarded a Sêr Cymru award to investigate the impact of COVID-19 on GP prescribing in Wales. This project, *'Assessing the scale and variation of the impact of COVID-19 on primary care prescribing in Wales'* is running from September 2020 to April 2021.

Cancer patients who are prescribed 5-fluorouracil are at increased risk of severe and fatal toxicity if they are deficient in the enzyme dihydropyrimidine dehydrogenase (DPD). Prof. Dyfrig Hughes was awarded funding to assess the cost-effectiveness of testing for inherited variants of the *DPYD* gene which encodes DPD.

PRESENTATIONS

Dr Lorna Tuersley was invited by NHS England to present on the development of the patient-centred outcomes measures (PCOMs) **WATCH** (Wheelchair outcomes Assessment Tool for Children) and **WATCH-Ad** (for adults) at the *'Personal Wheelchair Budgets Webinar 3: Community of practice – Patient Centred Outcome Measures'* webinar. This was the most recent in a series of webinars aimed at NHS wheelchair service providers and commissioners with more than 100 attendees (<https://cheme.bangor.ac.uk/watch>).

ABOUT PEOPLE

Farewell to Dr Colin Ridyard, who has taken a new position as Research Associate in Health Economics and Econometrics at the University of Lincoln.

Congratulations to Dr Laura Timmis on the arrival of a new baby boy.

Prof. Dyfrig Hughes was selected as a member of the UK COVID-19 Therapeutics Taskforce.

PUBLICATIONS

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