

CONTENTS

- CHE's global reach includes course attendees and visitors to CHE and presentations and workshops given by staff.

ANNUAL REPORT 2016

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Alan Williams fellows



Welcome to the 2016 Annual Report for the Centre for Health Economics.

Our research this year has ranged along a spectrum from the global to the local, demonstrating the relevance of health economics to decision-making at all levels, and in a wide variety of contexts.

Examples of our international research include work on defining health benefits packages undertaken in Malawi alongside Ministry of Health officials; a project on measuring the impact of a sugar tax in Chile; collaborations with the think-tank, the Center for Global Development, on the third edition of their "Millions Saved" textbook; research on competition policy in health care across five European countries; cross-country analysis of health spending and mortality; and international comparisons of surgical volumes and safety.

Nationally, our contributions have spanned many key areas of concern to the health service, including estimation of the annual productivity of the NHS; investigation of the trends in health care expenditure over time and the drivers of increased spending; performance of mental health care providers; measurement of outcomes after surgery; integration in health and social care; and production of health equity indicators for the NHS. The latter research has been rolled out by NHS England as part of their national indicator set and our research has also produced a tool-kit to allow interrogation of the equity performance of local Clinical Commissioning Groups (CCGs).

Also at the local level we have been working closely with the CCG on a number of economic evaluations (eg, care hubs, rehabilitation services), as well as with local authorities to provide a toolkit to estimate the financial and health impact of interventions to improve air quality.

Our extensive research programme in the economic evaluation of health technologies has investigated the cost-effectiveness of a wide range of interventions nationally and internationally ranging from: HIV treatments in the UK and in Africa; diagnostic interventions; treatments for many health conditions such as depression, heart disease, cancer, arthritis; community health services for children; and interventions to improve physical activity.

Our methods-based research provides an essential framework for ensuring that our applied research is high quality and robust and that we continue to contribute to the advancement of the health economics discipline. In this respect, we have published this year

on a range of issues including the methodological challenges of undertaking evaluations in social care and for complex interventions; using linked electronic health records to estimate healthcare costs; how to estimate the benefits of undertaking additional research and the benefits of investing in implementation of cost-effective technologies; issues in network meta-analysis; extrapolation of survival from clinical trials; and measuring and valuing informal care in HIV/AIDS.

The feature pages in this report provide more in-depth information on some of our current and recently completed research projects. Other sections celebrate the varied achievements and activities of staff and students, some of which are reflected in over a hundred new publications, a large number of new and ongoing research projects, awards and PhD successes. We welcomed 8 new members of staff and 4 new PhD students to CHE this year, as well as 16 visitors from all over the world, including our Alan Williams Fellowship holder from Singapore. Similarly, over 300 people from 35 countries attended our short courses in York to learn about our applied and methods-based research.

CHE was awarded the Bronze Athena Swan award in 2014 and we have continued to develop our working practices. Over the past year, we have expanded our Athena Swan group to take on a wider Equality and Diversity role making a huge effort to ensure we provide a flexible, friendly and supportive working environment for all our staff and students. Building on the foundations of good practice we have established, we will continue to reflect and take action to achieve our goals in this important area.

We ended the year with the publication of the book, "Maynard Matters: Critical Thinking on Health Policy", edited by Cookson, Goddard and Sheldon. The book comprises short new pieces by colleagues celebrating Professor Alan Maynard's contributions to academic and public life, followed by a selection of his own writings on a wide range of policy topics. We were delighted to launch the book at a lunch which was attended by many of Alan's friends and colleagues. Alan has been an unstinting torch-bearer for ensuring that health economics "matters" and that it influences health policy and practice, and his unique contribution is valued highly both nationally and internationally. As the founding director of the Centre for Health Economics in 1983, Alan established the basis for the thriving research centre that we have today and for that I personally, along with all my colleagues at CHE, am very grateful.

Maria

Professor Maria Goddard, Director

Maynard Matters

Maynard Matters: Critical Thinking on Health Policy, edited by **Richard Cookson**, **Maria Goddard** (CHE) and Trevor Sheldon (Department of Health Sciences, University of York), was launched 15th December 2016.



Celebrating 25 years

The journal *Health Economics*, which has been managed from its inception by **Frances Sharp** in CHE, celebrated its 25th Anniversary in 2016.



AWARDS FOR STAFF



Andrew Jones, James Lomas and Nigel Rice were awarded the inaugural Willard G. Manning Memorial Award for the Best Research in Health Econometrics by the American Society of Health Economists. Their paper is: Healthcare cost regressions: going beyond the mean to estimate the full distribution. *Health Economics* 2015; 24(9): 1192-1212.

Katja Grašič was awarded a NIHR Doctoral Fellowship. Over three years she will be working on Providers' Response to the Pay for Performance Incentives.

PhD success for Tom Patton, Dan Liu, Hyacinthe Kankeu, Valerie Moran and Miqdad Asaria.

Alex Rollinger won the Outstanding Collaborative Working (Individual) Award at the Professional@York conference which celebrates the achievements of support staff across the whole of the University of York campus.

Miqdad Asaria, James Lomas, Linda Baillie and Vanessa King received a 'Making the Difference' award from the University of York.



Left to right: James Lomas, Nigel Rice, Katja Grašič and Alex Rollinger (left)

Professional@YORK

York conference awards ceremony celebrates the achievements of support staff across the whole campus. There were 168 nominations in total and several CHE support staff were shortlisted including Gill Forder, Gillian Robinson, Vanessa Wood, Trish Smith and Alex Rollinger.

Health Committee appointment

Andrew Street was appointed as special advisor to the House of Commons Health Committee for its inquiry into the Impact of the Comprehensive Spending Review on health and social care. **Andrew** also appeared as an expert witness at the House of Lords to answer questions on productivity and efficiency of the NHS.



PROMOTION SUCCESS

- PANOS KASTERIDIS
- PAUL REVILL
- RITA SANTOS
- PEDRO SARAMAGO GONCALVES

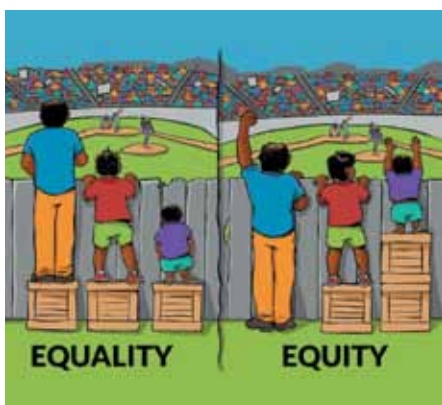
The ODI returns to CHE for the Second Annual Health Fellows' Training Day

In July, CHE was delighted to host a repeat of its successful one-day training event, held first in 2015, for the latest cohort of post-graduate economists and statisticians accepted onto the Overseas Development Institute's (ODI) prestigious Fellowship Scheme.

CHE IN THE NEWS

THE FOLLOWING RESEARCH PROJECTS CARRIED OUT AT CHE WERE AMONGST THOSE FEATURED OVER THE PAST YEAR

- In order to help reduce preventable A&E admissions, healthcare equity indicators, developed in CHE, have been adopted by NHS managers.
- Socioeconomic inequality costs the NHS in England £4.8 billion a year, almost a fifth of the total NHS hospital budget.



- How patients choose hospitals for planned surgery was featured in Twenty Reports to Make You Think published by the Patient Experience Library.
- GP health checks for dementia, for which GPs receive payment, offer modest but important benefits for dementia patients, but do they represent good value for money?
- CHE Researchers met with WHO representatives to discuss latest research findings.
- A healthcare package has been developed to deliver affordable healthcare in sub-Saharan Africa which has the potential to be used as a blueprint for other developing countries.



CHANCELLOR'S VISIT

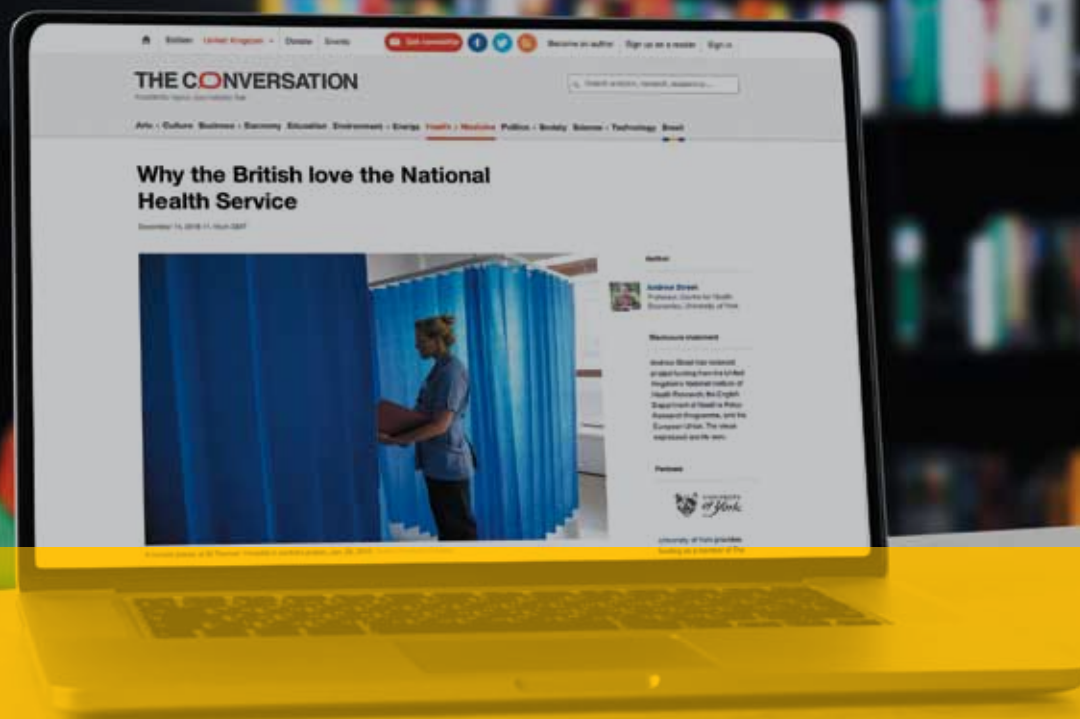
Professor Sir Malcom Grant, (chair of NHS England and Chancellor of the University) visited CHE in April 2016. Staff gave a series of presentations on key questions our research is addressing in the areas of health policy, economic evaluation, equity and global health. He also met with CHE students and early career researchers to hear about their research projects. Following the visit Sir Malcom commented

“... although of course I had long known of the great reputation of the Centre, I was blown away by the impact it has had on health policy in the UK and internationally, and by how closely the Centre's current work maps onto our agenda for NHS England for the next few years.”

FELLOWSHIP TURNS 10

The Alan Williams Fellowships scheme was first launched in 2006 as a tribute to Professor Alan Williams and to enable health economists from anywhere in the world to spend time at the Centre for Health Economics in York, UK. In 2016, **John Tayu Lee** from Saw Swee Hock School of Public Health, Singapore was awarded a Fellowship for his research project 'Trends in health system performance and universal health coverage among six low- and middle-income countries – evidence from the WHO study of global ageing and health'.

CONTRIBUTING TO *THE CONVERSATION*



Left:
Andrew
Street

The academic community use a number of different routes to get its messages out to the wider world, most typically via traditional broadcast or newspaper media. Reliance on third-party media has had significant drawbacks. Often our key messages weren't picked up. Sometimes they were re-interpreted or distorted.

The Conversation now allows academics to communicate their research directly to the public. *The Conversation* launched in Australia in March 2011 and in the UK in May 2013 as an independent source of news and views. It aims to enhance understanding of current affairs and complex issues, and to foster a better quality of public discourse and debate.

During 2016, staff at the Centre for Health Economics have written various articles for *The Conversation*, showcasing our research or commenting on policy and practice in the National Health Service. Richard Cookson highlighted research showing poorer people are likely to end up in over-stretched Accident & Emergency departments. Andrew Street has written a regular column in which he has questioned the government's funding commitments for the NHS; analysed hospitals deficits and NHS productivity; summarised debate about a 7-day NHS; considered the implications of Brexit on the NHS; and discussed the likely impact of scrapping nursing bursaries.

He has also written about avoidable deaths of babies for *The Conversation Australia* and about why the British love the NHS for *The Conversation United States*. In previous years, staff have commented on budget announcements and the health-related election manifestos from the main political parties.

Our contributions to *The Conversation* draw upon our expertise in applying the tools of health economics to produce policy relevant research.

RESEARCH PROJECTS

IN PROGRESS AND COMPLETED IN 2016

CHE FUNDERS

Research projects are arranged in themes to reflect the cross-cutting nature of CHE research. CHE has a broad funding base and a list of funders follows:

- **Bill and Melinda Gates Foundation**
- **British Heart Foundation**
- **Cancer Research UK**
- **Department of Health (DH)**
 - Policy Research Programme (PRP)
 - Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU)
 - Economics of Social and Health Care Research Unit (ESHCRU)
 - Policy Research Programme, Public Health Research Consortium (PRP, PHRC)
- **Economic & Social Research Council (ESRC)**
 - Economic & Social Research Council, Impact Acceleration Accounts (ESRC IAA)
 - Economic & Social Research Council, Impact Acceleration Accounts, Global Challenges Research Fund (ESRC IAA GCRF)
- **Engineering and Physical Sciences Research Council (EPSRC)**
- **European Commission**
 - Innovative Medicines Initiative (IMI)
 - Marie Skłodowska-Curie Actions Innovative Training Networks
- **EuroQol Research Foundation**
- **German Ministry for Education and Research**
- **Health Foundation**
- **Inter-American Development Bank**
- **Luxembourg Institute of Health**
- **Medical Research Council (MRC)**
- **National Institute for Health Research (NIHR)**
 - Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber (CLAHRC YH)
 - Health Services & Delivery Research (HS & DR)
 - Health Technology Assessment (HTA)
 - NIHR Evaluation Trials and Studies Coordinating Centre (NETSCC)
 - Programme Grant
 - Public Health Research (PHR)
 - Research Capability Funding (RCF)
 - Research for Patient Benefit (RfPB)
 - School for Social Care Research (SSCR)
 - Technology Assessment Reviews (TARS)
- **National Institute for Health and Care Excellence (NICE)**
 - Decision Support Unit (DSU)
- **Newton Fund, Department of Science and Technology-National Research Foundation (DST-NRF)**
- **NHS England**
- **Overseas Development Institute (ODI)**
- **Riksbanken Jubileumsfond: the Swedish Foundation for Humanities and Social Sciences**
- **Somerset Clinical Commissioning Group**
- **University of York**
 - Centre for Chronic Diseases and Disorders (C2D2)
- **World Bank**
- **Yeovil District Hospital**

RESEARCH PROJECTS

IN PROGRESS AND COMPLETED IN 2016

ECONOMIC EVALUATION

A Rapid Evidence synthesis of Outcomes and Care Utilisation following Self-care support for children and adolescents with long term conditions (REfOCUS): reducing care utilisation without compromising health outcomes

Gerry Richardson
Funder: NIHR HS&DR

...

A scoping review on the production of different aspects of quality of health care

Simon Walker, Mark Sculpher
Funder: DH PRP EEPUR

...

ARREST – Adjunctive Rifampicin to reduce early mortality from staphylococcus aureus bacteraemia: a multi-centre, randomised, blinded, placebo trial

Marta Soares, Pedro Saramago, Edward Cox
Funder: NIHR HTA

...

BOX-IT – evaluating the addition of celecoxib to standard treatment of transitional cell carcinoma of the bladder

Mark Sculpher, Marta Soares, Pedro Saramago, Edward Cox
Funder: CRUK

...

Cost-effectiveness analysis of CEMARC II (Clinical Evaluation of Magnetic Resonance imaging in Coronary heart disease II)

Simon Walker, Mark Sculpher
Funder: British Heart Foundation

...

Developing a reference protocol for expert elicitation in health care decision making

Laura Bojke, Marta Soares, Eleftherios Sideris, Karl Claxton
Funder: MRC

...

Early detection to improve outcome in patients with undiagnosed psoriatic arthritis (PROMPT)

Laura Bojke (CHE), Eldon Spackman (University of Calgary), Neil McHugh, Alison Nightingale, William Tillet, Gavin Shaddick (University of Bath), Philip Helliwell, Laura Coates, Claire Davies, Sarah Brown (University of Leeds), Jon Packham (Keele University), Catherine Smith (Guy's and St Thomas Foundation Trust)
Funder: NIHR

...

Economic evaluation of the Accelerate, Coordinate and Evaluate (ACE) programme for the early diagnosis of cancer

Sebastian Hinde, Susan Griffin, Mark Sculpher
Funder: DH PRP EEPUR

...

ELFIN: A multi-centre randomised placebo-controlled trial of prophylactic enteral supplementation with bovine lactoferrin

William McGuire (CRD and HYMS, York), Gerry Richardson (CHE)
Funder: NIHR HTA

EPOCH – Enhanced peri-operative care for high-risk patients trial. A stepped wedge randomised cluster trial of an intervention to improve quality of care for patients undergoing emergency laparotomy

Gerry Richardson
Funder: NIHR HS&DR NETSCC

...

Estimating health opportunity costs (the cost-effectiveness threshold) for the NHS

Karl Claxton, James Lomas, Marta Soares, Mark Sculpher (CHE), Steve Martin (Department of Economics and Related Studies, York)
Funder: DH PRP EEPUR

...

FAST Forward - a randomised clinical trial testing a 1-week course of curative whole breast radiotherapy against a standard 3-week schedule in terms of local cancer control and late adverse effects in women with early breast cancer

Susan Griffin
Funder: NIHR HTA

...

Global cost-effectiveness thresholds for Bill and Melinda Gates Foundation

Karl Claxton, Mark Sculpher, Paul Revill, Claire Rothery, James Lomas, Jessica Ochalek
Funder: Bill and Melinda Gates Foundation

...

Healthcare Alliance for Resourceful Medicines Offensive against Neoplasms in Haematology (HARMONY)

Andrea Manca
Funder: European Commission IMI H2020 programme

...

Health economics of personalised medicine

Andrea Manca (CHE), Cynthia Iglesias (Department of Health Sciences, York)
Funder: Luxembourg Institute of Health

...

Health economics and outcomes measurement

Laura Bojke, Gerry Richardson, Sebastian Hinde, James Lomas, Mark Sculpher (CHE), Tracey Young, John Brazier (University of Sheffield)
Funder: NIHR CLAHRC YH

...

High priority Cochrane Reviews in wound prevention and treatment

Marta Soares
Funder: NIHR NETSCC

...

Improving the Wellbeing of people with Opioid Treated CHronic pain (I-WOTCH)

Andrea Manca (CHE), Cynthia Iglesias (Department of Health Sciences, York)
Funder: NIHR HTA R&D Programme

...

MDS-RIGHT: providing the right care to the right patient with MyeloDysplastic Syndrome at the right time

Andrea Manca, Thomas Patton (CHE), Cynthia Iglesias, Alexandra Smith, Simon Crouch, Tom Johnston, Ge Yu, (Department of Health Sciences, York)
Funder: European Commission

Mind the risk

Andrea Manca

Funder: Riksbanken Jubileumsfond: the Swedish Foundation for Humanities and Social Sciences

...

Modelling generic preference based outcome measures - development and comparison

Andrea Manca

Funder: MRC

...

Multiple versus staged stenting for elective PCI

Laura Bojke, Gerry Richardson, Nils Gutacker, Miqdad Asaria, Katja Grašič, Alessandro Grosso (CHE), Patrick Doherty, Alex Harrison (Department of Health Sciences, York)

Funder: NIHR RCF

...

NETSCC: TARS – Production of Technology Assessment Reviews for the NIHR

Laura Bojke, Susan Griffin, Stephen Palmer, Claire Rothery, Mark Sculpher, Marta Soares, Simon Walker, Beth Woods, Ana Duarte, Rita Faria, Sebastian Hinde, Eleftherios Sideris, James Lomas, Mathilde Peron, Pedro Saramago

Funder: NIHR TARS

...

NICE Economic and Methodological Unit

Helen Weatherly, Susan Griffin, Simon Walker, Rita Faria (led by York Health Economics Consortium)

Funder: NICE

...

NIHR Senior Investigator Award

Mark Sculpher

Funder: NIHR

...

Opioids in heart failure

Miriam Johnson (University of Hull), Gerry Richardson (CHE)

Funder: British Heart Foundation

...

Partitioned survival analysis as a decision modelling tool

Marta Soares, Beth Woods, Stephen Palmer, Eleftherios Sideris

Funder: NICE DSU

...

PREVAIL – PREVenting infection using Antibiotic Impregnated Long lines

Laura Bojke, Rita Faria, Alessandro Grosso (CHE), Ruth Gilbert (University College London)

Funder: NIHR HTA NETSCC

...

Partnerships between deaf people and hearing dogs: a mixed methods realist evaluation?

Bryony Beresford (SPRU, York), Catherine Hewitt (Department of Health Sciences, York), Helen Weatherly (CHE)

Funder: NIHR SSCR

...

Prevention of progression to cirrhosis in hepatitis C with fibrosis; effectiveness and cost effectiveness of sequential therapy

Rita Faria, Beth Woods, Susan Griffin, Steve Palmer, Mark Sculpher

Funder: DH PRP EEPUR

Systematic review of the cost-effectiveness of alternative follow-up arrangements in cancer and interviews with clinicians

Gerry Richardson, Mark Sculpher (CHE), Marco Barbieri (Honorary Visiting Fellow CHE)

Funder: DH PRP EEPUR

...

STAMPEDE (Systematic Therapy in Advancing or Metastatic Prostate Cancer: Evaluation of Drug Efficacy)

Mark Sculpher, Eleftherios Sideris, Beth Woods

Funder: CRUK

...

Surgical wounds healing by secondary intention: characterising and quantifying the problem and identifying effective treatments

Pedro Saramago, Marta Soares, Karl Claxton

Funder: NIHR Programme Grant

...

SWIFFT – Scaphoid waist internal fixation for fractures trial: cast treatment versus surgical fixation of fractures of the scaphoid waist in adults: a multi-centre randomised controlled trial

Stephen Brealey (Department of Health Sciences, York), Gerry Richardson (CHE)

Funder: NIHR HTA

...

Synthesising registry data for psoriatic arthritis: a feasibility study

Andrea Manca, Laura Bojke, Thomas Patton

Funder: University of York

...

The National Institute of Health Research (NIHR) research design service for Yorkshire & the Humber

Gerry Richardson, Susan Griffin, Rita Faria

Funder: NIHR

...

The Wearable Clinic for Digital Care Services

Andrea Manca

Funder: EPSRC

...

UK FROST – Multi-centre randomised controlled trial with economic evaluation and nested qualitative study comparing early structured physiotherapy versus manipulation under anaesthesia versus arthroscopic capsular release for patients referred to secondary care with a frozen shoulder (adhesive capsulitis)

Amar Rangan (The James Cook University Hospital), Gerry Richardson (CHE)

Funder: NIHR HTA

...

Use of national audit datasets to evaluate interventions: the case of the National Heart Failure Audit

Simon Walker, Mark Sculpher

Funder: DH PRP EEPUR

RESEARCH PROJECTS

IN PROGRESS AND COMPLETED IN 2016

HEALTH POLICY

Competition policy in other health systems and what can be learned for UK health policy

Luigi Siciliani (Department of Economics and Related Studies, York), Martin Chalkley, Hugh Gravelle (CHE)

Funder: The Health Foundation

...

Developing an online web tool to inform patients about their likely outcome of surgery to impact on shared decision making in primary care in York

Nils Gutacker, Andrew Street

Funder: ESRC IAA

...

Evaluating the development of medical revalidation in England and its impact on organisational performance and medical practice.

Nils Gutacker, Chris Bojke (CHE), Karen Bloor (Department of Health Sciences, York), Kieran Walshe (Project Lead, University of Manchester Business School)

Funder: NIHR PRP

...

Evaluating the intended and unintended consequences of best practice tariffs on patient health outcomes and provider behaviour

Nils Gutacker, James Gaughan, Katja Grašič, Andrew Street (CHE), Luigi Siciliani (Department of Economics and Related Studies, York)

Funder: DH PRP ESHCRU

...

Evaluating the cost-effectiveness of the Best Practice Tariff for hip fracture

Andrew Street, Katja Grašič, Nils Gutacker, James Gaughan

Funder: NHS England

...

Evidence based transformation in the NHS

Rebecca Lawton (University of Leeds and Bradford Institute for Health Research Leeds), Andrew Street, Nils Gutacker, Katja Grašič (CHE)

Funder: NIHR CLAHRC YH

...

Fast response analytical facility

Karen Bloor, Tim Doran (Department of Health Sciences, York), Yvonne Birks (SPRU, York), Andrew Street (CHE)

Funder: DH PRP

...

Health care expenditures, proximity to death and changes over time

Nigel Rice, Dan Howdon, Maria Jose Aragon

Funder: DH PRP ESHCRU

...

Hospital service reconfiguration, small hospitals, mergers and closure

Hugh Gravelle, Giuseppe Moscelli, James Gaughan (CHE), Luigi Siciliani (Department of Economics and Related Studies, York)

Funder: DH PRP ESHCRU

Market structure, patient choice and responsiveness and efficiency

Hugh Gravelle, Giuseppe Moscelli (CHE), Luigi Siciliani (Department of Economics and Related Studies, York)

Funder: DH PRP ESHCRU

...

Market structure and general practice quality

Hugh Gravelle, Dan Liu, Rita Santos (CHE), Carol Propper (Imperial College London)

Funder: DH PRP ESHCRU

...

Measuring and analysis of NHS productivity growth

Chris Bojke, Adriana Castelli, Katja Grašič, Dan Howdon, Andrew Street, Idaira Rodriguez

Funder: DH PRP ESHCRU

...

Measuring hospital productivity

Maria Jose Aragon, Adriana Castelli, Martin Chalkley, James Gaughan

Funder: DH PRP ESHCRU

...

Measuring and explaining variations in general practice performance

Rita Santos

Funder: NIHR (Doctoral Research Fellowship)

...

Production of evidence syntheses for the HS&DR programme

Alison Eastwood (CRD, York), Andrew Street (CHE), Gillian Parker (SPRU, York)

Funder: NIHR HS&DR NETSCC

...

Providers' response on the pay for performance incentives

Katja Grašič

Funder: NIHR (Doctoral Research Fellowship)

...

The effect of public and private ownership and management on healthcare quality

Hugh Gravelle, Giuseppe Moscelli, Nils Gutacker (CHE), Luigi Siciliani (Department of Economics and Related Studies, York)

Funder: DH PRP ESHCRU

...

The role of EQ-5D value sets based on patient preferences in the context of hospital choice in the national PROM Programme in England

Nils Gutacker, Thomas Patton

Funder: EuroQol Research Foundation

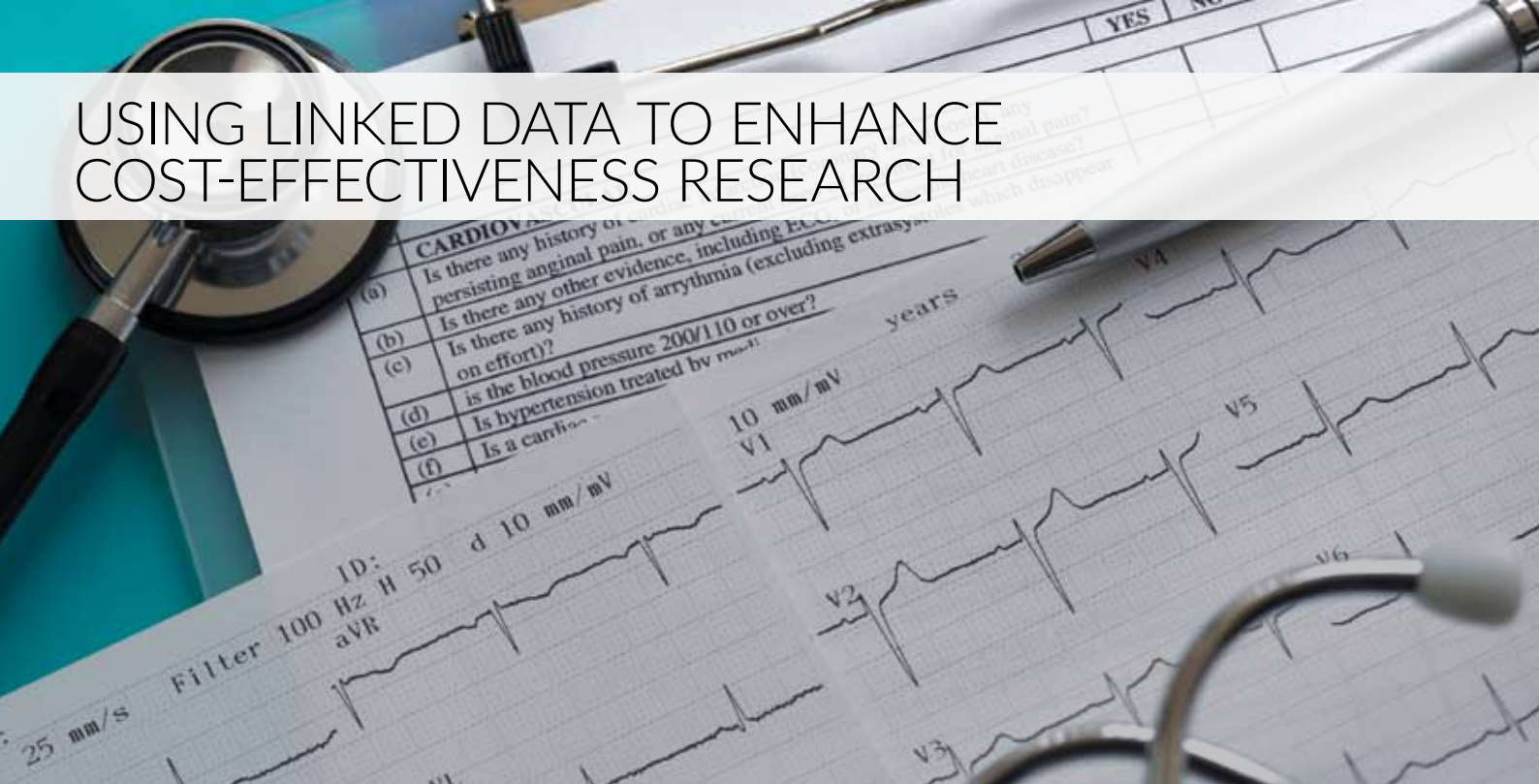
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Understanding the relationship between clinical quality of primary care and patient self-reported health in England

Hugh Gravelle (CHE) with Yan Feng, Nancy Devlin (Office of Health Economics, London)

Funder: EUROQOL Research Foundation

USING LINKED DATA TO ENHANCE COST-EFFECTIVENESS RESEARCH



Left to right:
Miqdad Asaria, Simon Walker, Andrea Manca,
Stephen Palmer, Mark Sculpher (CHE);
Collaborators: Harry Hemingway, Anoop
Shah (UCL); Keith Abrams, Michael Crowther
(University of Leicester);
Adam Timmis (QMUL).

It is vital that treatments are targeted at those for whom they are cost-effective. To achieve this requires a detailed understanding of the lifetime costs and outcomes of patients based on their underlying risk of disease and the impact treatments have on that risk.

The availability of electronic health records (EHR) which link primary care, hospitalisation, disease-specific registry and mortality data, makes the English NHS an attractive setting in which to examine the long term costs and outcomes of patients with chronic diseases.

Improvements in survival after acute coronary syndrome have resulted in a large and growing number of patients with stable coronary artery disease (stable CAD) in the UK. The stable CAD population serves as an important example of a patient population suffering from a long-term condition experiencing significant morbidity and requiring a large amount of health care.

CALIBER (Cardiovascular disease research using Linked Bespoke studies and Electronic Health Records) links together

four data sets: primary care data from the Clinical Practice Research Datalink (CPRD), disease specific registry data from the Myocardial Ischaemia National Audit Project registry (MINAP), in-hospital data from Hospital Episode Statistics (HES) and cause-specific mortality from the Office for National Statistics. A team of researchers from University of York, University College London and the University of Leicester used CALIBER data relating to almost 100,000 patients with stable-CAD in England between 2001 and 2010 to examine their costs and outcomes. This data set was used to estimate the risk of future cardiovascular events, the costs of these events and the background costs of living with stable CAD, based on a series of risk factors. A decision analytic economic model was developed to synthesise this evidence in order to estimate the lifetime costs and quality-adjusted life-years for different patients based on their underlying risk profile. The patients in the data set were allocated to ten different risk groups depending on their likelihood of experiencing future cardiovascular events. For a new intervention, the minimum treatment effect it would have to achieve at a given price (or conversely the maximum price for a given treatment effect) to provide value for money were estimated for each risk group.

This research provides vital information, to both the NHS and drug manufacturers, regarding the potential cost-effectiveness of new treatments for stable CAD. The model has been made publicly available to allow for the estimation of cost-effectiveness of new treatments (available here: <https://github.com/miqdadasaria/caliber-scad-model>).

Whilst the research described focused on stable CAD, the methods used can be easily generalised to other disease areas and show the potential benefits of exploiting EHR to estimate the long term costs and outcomes of patients with chronic disease.

Detailed descriptions of the methods and results of this work as well as discussion of the policy implications can be found in the following research article:

Asaria M, Walker S, Palmer S, Gale CP, Shah AD, Abrams KR, Crowther M, Manca A, Timmis A, Hemingway H, Sculpher M. Using electronic health records to predict costs and outcomes in stable coronary artery disease *Heart* 2016; doi: 10.1136/heartjnl-2015-308850

RESEARCH PROJECTS

IN PROGRESS AND COMPLETED IN 2016

MENTAL HEALTH

A feasibility study to examine the suitability of the new funding approach, Payment by Results (PbR), to improve mental health services in England

Rowena Jacobs, Maria Jose Aragon, Martin Chalkley (CHE), Jan Boehnke (Hull York Medical School), Simon Gilbody (Department of Health Sciences, York), Mike Clark (London School of Economics), Valerie Moran (London School of Hygiene & Tropical Medicine)

Funder: University of York C2D2

...

Does better quality of primary care improve outcomes for patients with serious mental illness (SMI)? An analysis of the relationship between SMI management and outcomes using the first linked data on the full patient care pathway

Rowena Jacobs, Maria Goddard, Hugh Gravelle, Nils Gutacker, Panos Kasteridis, Christoph Kronenberg, Anne Mason, Nigel Rice (CHE), Tim Doran, Najma Siddiqi, Simon Gilbody (Department of Health Sciences, York), Tony Kendrick (University of Southampton), Ceri Owen, Lauren Aylott (Service Users)

Funder: NIHR HS&DR

...

Higher quality primary care for dementia: the effects on risk of care home placement

Anne Mason, Maria Goddard, Rowena Jacobs, Panos Kasteridis, Dan Liu (CHE), Dan Howdon, Raphael Wittenberg (London School of Economics)

Funder: DH PRP ESHCRU

...

Incentive schemes to increase the number of people diagnosed with dementia: an evaluation of the effects, costs and unintended consequences

Anne Mason, Maria Goddard, Rowena Jacobs, Panos Kasteridis, Dan Liu (CHE), Raphael Wittenberg (London School of Economics)

Funder: DH PRP ESHCRU

...

Variations in costs and outcomes under the National Tariff Payment System for mental health services in England

Rowena Jacobs, Giuseppe Moscelli, Nils Gutacker, Anne Mason

Funder: DH PRP ESHCRU

EQUITY IN HEALTH AND HEALTH CARE

Health equity impacts: evaluating the impacts of organisations and interventions on social inequalities in health

Richard Cookson

Funder: NIHR, Senior Research Fellowship

GLOBAL HEALTH

Aligning funding to impact on family planning 2020 goals

Andrew Mirelman

Funder: Bill and Melinda Gates Foundation

...

Assessing the macroeconomic and welfare benefits of reducing road traffic injuries

Marc Suhrcke, Andrew Mirelman

Funder: World Bank

...

CHAPAS 3 and BREATHER health economics work

Mark Sculpher, Paul Revill, Susan Griffin

Funder: European Commission

...

Characterising patterns and changes in physical activity in older people and their determinants and consequences

Marc Suhrcke

Funder: MRC

...

Early Career Research Fellowship

Andrew Mirelman

Funder: Newton Fund/DST-NRF

...

Evaluating the role of fiscal policy in improving diets and preventing chronic disease in Chile

Marc Suhrcke, Andrew Mirelman

Funder: MRC

...

Health expenditure efficiency in Latin America and the Caribbean

Rodrigo Moreno-Serra

Funder: Inter-American Development Bank

...

HIV modelling consortium

Mark Sculpher, Paul Revill, Claire Rothery, Karl Claxton, Beth Woods

Funder: Bill and Melinda Gates Foundation

...

Improving statistical methods to address confounding in the economic evaluation of health interventions

Noemi Kreif

Funder: MRC

...

Links between public financial management and health service delivery

Marc Suhrcke, Paul Revill, Andrew Mirelman

Funder: Overseas Development Institute

...

Malawi essential healthcare package: from theory to practice

Paul Revill

Funder: ESRC IAA GCRF

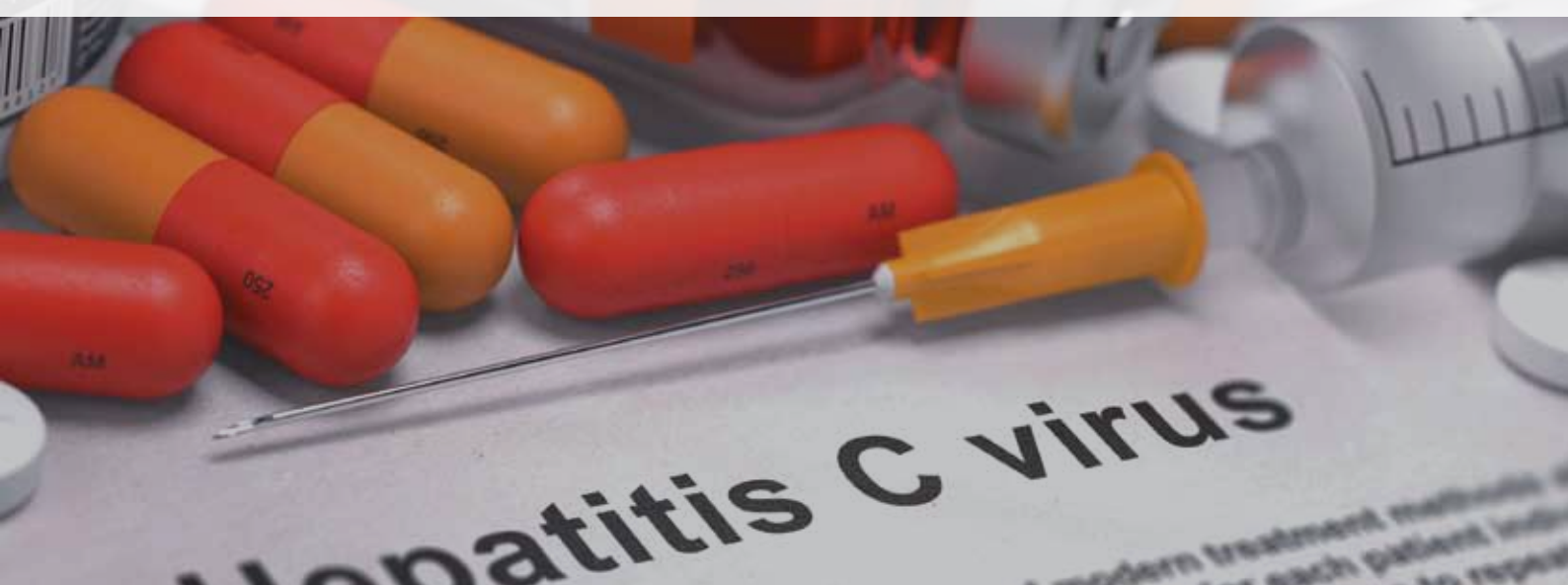
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Supporting the uptake of methods developments in economic evaluation for use in low- and middle-income countries

P Revill

Funder: ESRC IAA

BETTER VALUE FROM NHS INVESTMENTS IN HEPATITIS C TREATMENT



Left to right: Rita Faria, Beth Woods, Susan Griffin, Stephen Palmer, Mark Sculpher (CHE); Collaborators: Stephen D Ryder (Nottingham Digestive Diseases Centre, University of Nottingham and Nottingham University Hospitals NHS Trust and Biomedical Research Unit).

CHE researchers have looked at how the new drugs for hepatitis C can be made available in a way that reflects not only their benefits to infected patients but also the cost burden on the health service, and therefore to the services available for other patients.

A major challenge for the NHS, and health systems globally in 2015-16, has been the arrival of a series of new drugs for hepatitis C. These drugs are highly effective, offering patients a very high chance of cure from a virus which can cause serious long-term morbidity and mortality.

However, the cost implications of making these drugs widely available are significant. The new drugs cost £25,000 to £70,000 per treatment course. This is up to 14 times more than the standard interferon-based treatment. This hefty price tag, coupled with the large number of people needing treatment, means that hepatitis C treatment has the potential to take a large share of the NHS budget.

CHE researchers have contributed to the appraisal of these drugs by the National Institute for Health and Care Excellence (NICE) and, more recently, have conducted research for NHS England about how to improve the value for money achieved from using these drugs.

Our research built on previous work conducted within the NICE programme. We compared all available treatments for the patient group and assessed whether they should be used as the first treatment offered, or should only be used in those who fail to achieve a cure from standard therapy. In order to do this, we developed a cost-effectiveness model to predict the costs and health gains associated with treating individuals with a wide range of treatment pathways.

We concluded that for most types of hepatitis C the new drugs should not be used as the first treatment option. Instead, our model predicts that patients who are not cured with the standard treatment as first line are likely to be cured with the new drugs as second or third line treatment. This approach achieves similar cure rates at a much lower cost to the health care system, compared with using the new drugs first.

The NHS has secured confidential discounts at a local level for many of the new drugs. As part of this work we therefore developed a price tool which allows users to customise the results of the analysis to reflect local prices. This work can help NHS commissioners to develop a cost-effective approach to managing patients with hepatitis C.

Further research details:

Faria R, Woods B, Griffin S, Palmer S, Sculpher M, Ryder SD. Prevention of progression to cirrhosis in hepatitis C with fibrosis: effectiveness and cost-effectiveness of sequential therapy. *Aliment Pharmacol Ther.* 2016 Oct;44(8):866-76. doi: 10.1111/apt.13775

Price tool available in the supplementary material and from the CHE website at <https://www.york.ac.uk/media/che/documents/Price%20tool%20final.xlsm>

RESEARCH PROJECTS

IN PROGRESS AND COMPLETED IN 2016

HEALTH AND SOCIAL CARE

Collaborative care in Somerset (the Symphony Project)

Andrew Street, Panos Kasteridis

Funder: Somerset Clinical Commissioning Group

...

Evaluation of South Somerset's complex care and enhanced primary care arrangements (Vanguard)

NHS South, Central and West Commissioning Support Unit, Panos Kasteridis, Anne Mason, Andrew Street (CHE)

Funder: Yeovil District Hospital

...

Evaluation of specialist nursing support for carers of people with dementia

Gillian Parker, Kate Gridley (SPRU, York), Helen Weatherly, Rita Faria (CHE)

Funder: NIHR HS&DR

...

Interdependency and coordination of health and care services: using economic methods to define target groups and care pathways

Andrew Street, Panos Kasteridis, James Gaughan, Anne Mason (with London School of Economics and University of Kent)

Funder: DH PRP ESHCRU

...

MORE – Models Of Reablement Evaluation: a mixed methods evaluation of a complex intervention

Parvaneh Rabiee, Gillian Parker, Bryony Beresford, Fiona Aspinall (SPRU, York), Helen Weatherly, Rita Faria (CHE)

Funder: NIHR HS&DR

...

Vision rehabilitation services: investigating the impacts of two service models

Parvaneh Rabiee, Gillian Parker, Bryony Beresford, Fiona Aspinall (SPRU, York), Helen Weatherly, Pedro Saramago (CHE)

Funder: NIHR SSCR

...

York CCG collaboration

Rehabilitation: Ana Duarte, Laura Bojke, Gerry Richardson

Care hubs: Ana Duarte, Laura Bojke, Gerry Richardson, Chris Bojke

Health checks: Seb Hinde, Gerry Richardson, Laura Bojke

Funder: NIHR

PUBLIC HEALTH

A randomised controlled trial to test the clinical and cost-effectiveness of primary care referral to a commercial weight loss provider

Marc Suhrcke

Funder: MRC

...

Assessing the feasibility of implementing and evaluating a new problem solving model for patients at risk of self-harm and suicidal behaviour in prison

Amanda Perry (Department of Health Sciences, York), Gerry Richardson (CHE)

Funder: NIHR RfPB

...

CAPITAL4HEALTH – Capabilities for active lifestyle

Marc Suhrcke

Funder: German Ministry for Education and Research

...

CLAHRC II – health economics and outcomes measurement

Mark Sculpher, Laura Bojke, Susan Griffin (CHE), Karen Bloor (Department of Health Sciences, York)

Funder: NIHR

...

Commissioning public health services: the impact of the health reforms on access, health inequalities and innovation in service provision

Linda Marks (Durham University), Anne Mason, Dan Liu (CHE)

Funder: DH PRP

...

Enhancing social-emotional health and wellbeing in the early years: a community-based randomised controlled trial (and economic) evaluation of the incredible years infant & toddler (0- 2) parenting programmes

Tracey Bywater, Amanda Mason-Jones, Kate Pickett (Department of Health Sciences, York), Gerry Richardson (CHE), Kathleen Kiernan (SPSW, York)

Funder: NIHR PHR

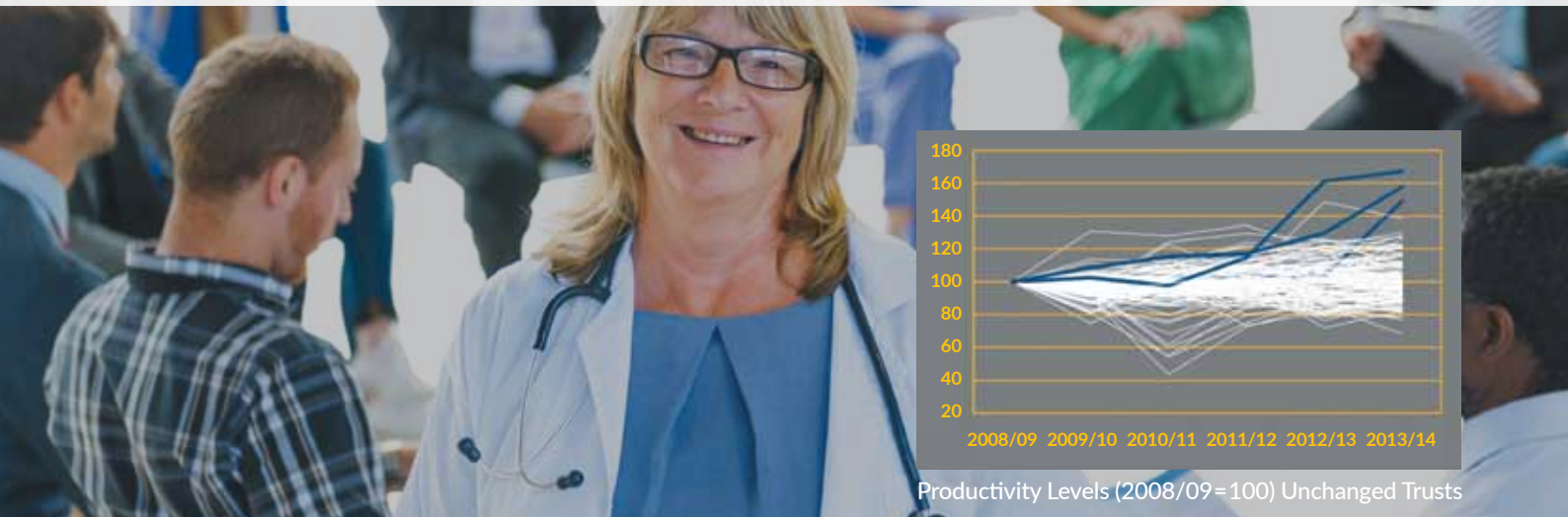
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Opportunities within the school environment to shift the distribution of activity intensity in adolescents

Marc Suhrcke

Funder: DH PRP

HOW FAST AND HOW FAR: CAN MEASURES OF HOSPITAL PRODUCTIVITY GROWTH HELP INFORM WHERE NHS SAVINGS CAN BE MADE?



Left to right: Maria Jose Aragón, Adriana Castelli, Martin Chalkley and James Gaughan

Expenditure on health care is one of the largest budget items in the UK public sector, representing around 7% of GDP between 2008 and 2013. Despite this substantial expenditure, financial resources available to the NHS are limited and often apparently not sufficient to meet the demands on the service.

In 2010 the government announced a funding gap – the difference between what the NHS needs and what was available – of £20bn and set out to meet that gap by, amongst other things, improved efficiency in hospitals and other health services. Efficiency refers to how effectively hospitals use their *inputs* (the doctors and nurses they employ and their premises) to produce *outputs* (treatments of patients). If hospitals are to improve their efficiency they need to produce more treatments from any given set of inputs.

Economists frequently use the ratio of outputs to inputs, which is termed Total Factor Productivity (TFP), to determine the efficiency of a productive system – such as an economy, or an industry – and increased efficiency corresponds to *growth* in TFP. Researchers at CHE have been instrumental in developing such a measure and applying it to the whole of the NHS. We have recently been engaged in assessing how useful this sort of measure might be in tracking the performance of individual hospitals. Measuring TFP growth at the level of individual hospitals might help to identify consistently high performers and establish a benchmark figure, providing evidence for setting realistic efficiency savings targets.

Using established methods, we constructed aggregate measures of hospitals' outputs and inputs for the period 2008/9 – 2013/14. The outputs included inpatient treatments, outpatient appointments, A&E visits, diagnostic tests and numerous other services. Inputs included the number and type of individuals employed, expenditure on capital (which reflects the hospital's premises) and other inputs such as drugs, and medical equipment. Changes in the NHS structure affect the recording of outputs and inputs, so we focused on a subset of hospitals that were not affected

by mergers. Changes in accounting practices can also affect how hospital data are recorded.

Our key finding is that measured TFP growth at hospital level exhibits substantial – even extraordinary – volatility. Hospitals may have positive growth one year, followed by negative growth, followed again by positive growth. It seems implausible that this pattern actually reflects changes in efficiency and we believe that our measure of TFP may also be affected by large errors in the data, which are artefacts of, or changes in, the data recording process.

We therefore concluded that current methods of measuring productivity do not produce credible measures of improving efficiency for individual hospitals and that there is a need to develop a new approach to measuring productivity growth at the hospital level.

For further information see:

<https://www.york.ac.uk/che/research/health-policy/efficiency-and-productivity/>

COURSES AND WORKSHOPS

2016



In 2016 we welcomed 304 delegates to York for our short courses from 35 countries worldwide, spanning all organisational sectors, including for-profit organisations such as pharmaceutical and medical technology companies, and not-for-profit organisations such as universities, hospitals, government bodies and charities.

Details of our current short courses can be found on our website: york.ac.uk/che/courses/

YORK SUMMER WORKSHOPS IN HEALTH ECONOMIC EVALUATION

Foundations of economic evaluation in health care

This five-day workshop, held in June, covered all the key issues in the methodology and practice of economic evaluation and was attended by 55 delegates.

Video <https://vimeo.com/147309364>

Advanced methods for cost-effectiveness analysis: meeting decision makers' requirements

A five-day workshop, also held in June, dealing with advanced methods in cost-effectiveness for pharmaceuticals and other health care technologies and was attended by 54 delegates.

Video <https://vimeo.com/147310423>

Outcome measurement and valuation for health technology assessment

This three-day workshop included material that links directly to the needs of organisations, such as NICE, which make decisions about health care delivery and funding. Twenty two delegates attended this workshop held in July.

Video <https://vimeo.com/157732001>



DECISION ANALYTIC MODELLING FOR ECONOMIC EVALUATION

The two-day Foundations course and three-day Advanced course are run jointly between the Centre for Health Economics and the University of Glasgow. Seventy six delegates in total attended both courses designed to inform and promote understanding in key areas of quality of life assessment and health economic evaluation.

Video <https://vimeo.com/196699566>

REGRESSION METHODS FOR HEALTH ECONOMIC EVALUATION

Thirty one people attended the three-day Regression Methods Course intended for people currently undertaking health economic evaluations within the pharmaceutical and medical device industries, consultancy, academia or the health services.

Video <https://vimeo.com/196700119>



ANALYSING PATIENT-LEVEL DATA USING HOSPITAL EPISODE STATISTICS (HES)

This course included instruction on how to understand, manage and manipulate HES data, construct and analyse key variables such as waiting times or length of stay, and link inpatient and outpatient HES records together and to other datasets. The course was held twice, in April and December, for a total of 66 participants.

HEALTH ECONOMICS BY DISTANCE LEARNING

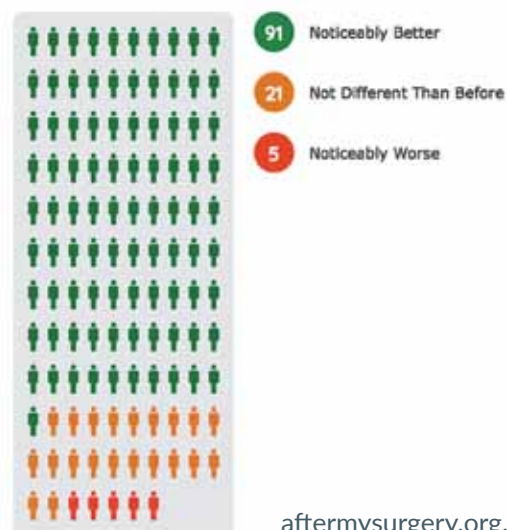
The York distance learning programmes in Health Economics for Health Care Professionals offer students the opportunity to study for university-accredited qualifications at the postgraduate level. The programmes are designed to allow students to study whilst continuing in their careers, and offer the flexibility to spread study over a period of years to match professional and personal circumstances. For more information, visit the [distance learning programmes in health economics site](#).



2016
Outcome
Workshop
Delegates

HOW WILL YOU FEEL AFTER SURGERY?

How 100 patients like you felt after surgery



aftermysurgery.org.uk



Left to right:
Nils Gutacker,
Andrew Street

Anyone thinking about having surgery would like to know whether or not they'll feel better afterwards. Patients might ask their GP: "Will I recover completely? Is there a chance that I will feel worse after surgery than I do now?"

Traditionally GPs have struggled to answer these questions simply because there is insufficient evidence available to provide detailed advice. Even if GPs are aware of a relevant randomised controlled trial, this provides information only about the effectiveness of treatments on average. But the patient seeking advice is unlikely to be 'average' and not all patients benefit equally from surgery.

It is only recently that evidence is emerging that can be used to inform shared decision-making between patients and GPs. As part of the national Patient Reported Outcome Measures (PROM) programme, over 800,000 NHS patients have provided detailed information about their health-related quality of life both before they have surgery and afterwards. We applied advanced data mining techniques to this large dataset to identify groups of patients who experience similar outcomes. We have used this information to make informative predictions for future patients.

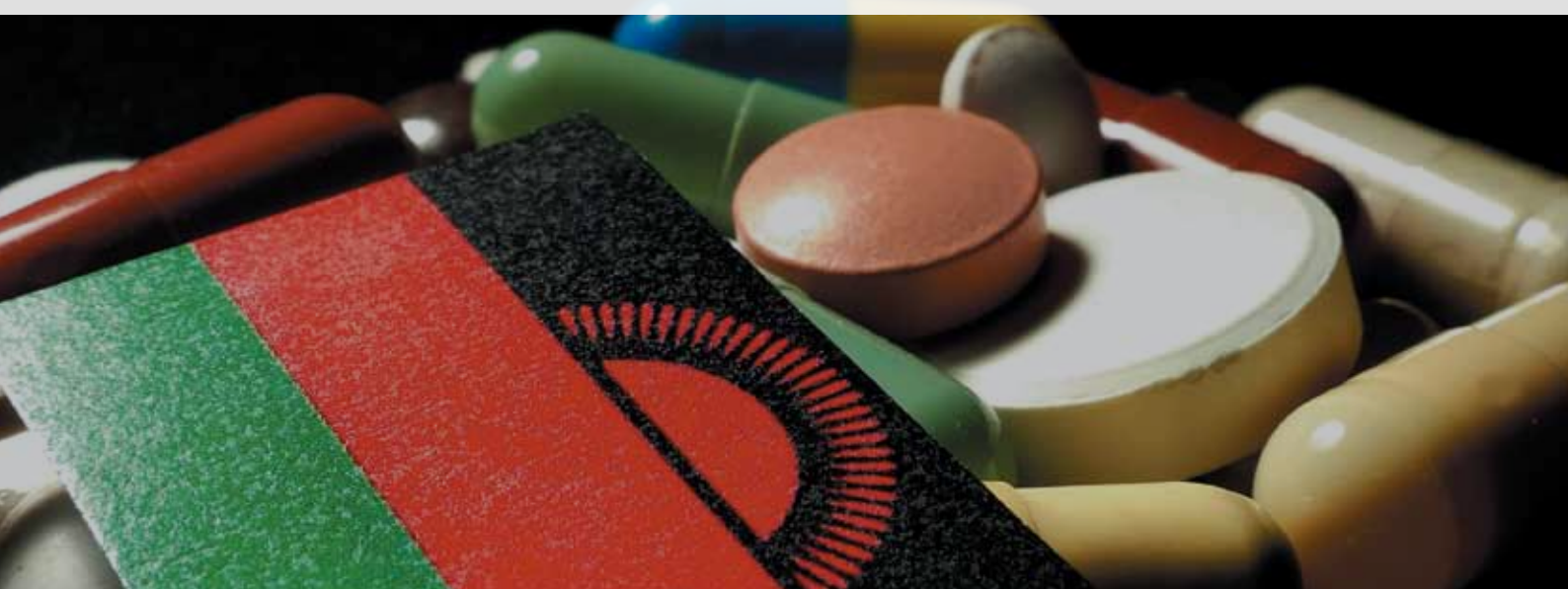
To make this information accessible, we have developed a website AfterMySurgery.org.uk that shows how patients planning to have hip, knee or hernia surgery are likely to feel after surgery. Prospective patients provide information about the age, gender, pre-surgical health and symptom duration. They are then matched to similar patients who had surgery in the past.

The website then summarises the post-surgical experience of these past patients, showing a simple pictographic representation of how many felt noticeably better, worse or no different after surgery. The website also shows how previous patients described themselves after surgery in terms of their mobility, pain, anxiety and depression, ability to wash and dress themselves, and ability to carry out their usual activities. This means that prospective patients can get information about how people just like them felt after having surgery.

The website is designed to be patient-friendly and easily understandable. It only takes a moment to fill in and can be used during consultations or by patients and their families at home.

The tool is now being piloted and promoted to all GPs in the Vale of York. The current version can be assessed from anywhere, so if you (or one of your friends or family members) are thinking of having hip, knee or hernia surgery, you can find out how you are likely to feel afterwards, based on what other people like you have said.

SUPPORTING THE DEVELOPMENT OF AN ESSENTIAL HEALTH CARE PACKAGE IN MALAWI



Left to right:
Jessica Ochalek, Paul Revill,
Karl Claxton, Alex Rollinger,
Mark Sculpher

In many low- and middle-income countries, particularly those largely dependent upon overseas development aid, a major tool for resource allocation decisions over the choice of health care interventions continues to be the use of health benefits packages (HBPs).

HBPs are used as central components of national health plans, to which both Governments and their development partners providing additional funding can commit, and they detail which interventions are to be prioritized from the limited resources available.

The design of HBPs draws heavily on the tools of economic evaluation (especially cost-effectiveness analysis) but, remarkably given their prominence within the health care systems of many countries, there is very little academic literature to guide their development. Particular challenges relate to how HBPs should be used for extended periods of time (typically within 5 year health plans), given situations may change rapidly; how HBPs can inform the dual challenges of both generating and allocating resources,

especially when information is very limited; how resource allocation decisions should be undertaken in systems that often have quite fractured funding arrangements – with various partners funding different components of health care delivery; and in weak systems that too often fail in delivering health care to those who most need it.

In 2016, researchers at CHE have undertaken work to inform how HBPs may be designed better – both through contributions to a new book on HBPs (to be published by the Center for Global Development in 2017) and through methods development and applied research in collaboration with the Government of Malawi. The overall goal is to support the country on its path towards Universal Health Care (UHC).

Malawi has had a HBP (termed the Essential Health Package (EHP)) since 2004. The EHP has contributed to improved recognition of the need to carefully consider the allocation of resources. However – as with HBPs used in other countries – the criteria upon which it has been based have not always reflected well the needs of policymaking and the challenges faced. Moreover, through time, the EHP has become increasingly unaffordable given the resources available in Malawi.

A new framework was required that puts population health maximization at its centre. Its development involved Jessica Ochalek spending 4 weeks working alongside Ministry of Health officials, and a joint workshop involving 45 Malawian and international researchers and policymakers (including 6 CHE participants). The framework offers a blueprint for other countries. It can be used in environments in which donors set constrained and complex funding conditionalities, often not appropriately targeted towards priorities, and in which decisions need to be made over the direct funding of interventions, as well as supporting implementation, uptake and other health systems strengthening activities.

CHE researchers returned to Malawi in late 2016 to share the tool with the Ministry of Health. Its continuous use will require on-going assessment and updating of evidence by Ministry officials and partners throughout the duration of the country's next health sector plan.

The framework and tool can be accessed at: <https://www.york.ac.uk/che/news/2016/affordable-healthcare-sub-saharan-africa/>

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PHD STUDENTS



James
Love-Koh

2016 was an exciting and fulfilling time as I moved into the fourth and final year of my PhD studies. The range of activities one can engage in alongside research, such as training, teaching, conference attendance and social events, are what makes being a PhD researcher so enjoyable.

My research focuses on incorporating health inequality concerns into the economic evaluation process, and

I have been lucky to have received co-supervision in CHE from Susan Griffin and Richard Cookson, whose combined expertise has been invaluable in developing my technical and research skills.

Over the course of the year I worked on two research papers. The first, on the distribution of health opportunity cost in England, was an extension to the high profile work on the cost-effectiveness threshold conducted here at CHE previously. Working on this type of research, at the forefront of the field, has been a definite highlight during my time here. Presenting this work at the Health Economics Study Group meeting

in Manchester was also rewarding, as I was exposed to many interesting areas of research and received valuable feedback on my own work.

Alongside my studies I have been afforded the opportunity to teach in the Economics department, giving seminars in probability theory and data analysis. I have also tutored on the Decision Modelling courses and the York Summer Workshops in Health Economic Evaluation, both delivered by CHE. Teaching both undergraduates and professionals was a wholly worthwhile experience and has improved my presentation and communication skills. Overall, an excellent year!



Anika
Reichert

My research focuses on the analysis of waiting times for patients experiencing their first episode of psychosis. I am interested in whether there exist inequalities in waiting time, whether a longer waiting time is associated with poorer treatment outcomes, and whether a maximum waiting time policy can be effective.

At the start of 2016, my first year of PhD study, I completed a comprehensive literature review to find out how my work can best contribute to the existing evidence. Being a PhD student at CHE allows me to use a rich administrative

dataset on mental health related treatment in England. Once I started working with the data, I soon realised that the identification of my study sample and the measurement of waiting times is very challenging with the given data structures. I invested a huge amount of time to prepare the data for my first analysis. However, I got all the necessary support to manage this task and grow from it. Rowena Jacobs, my supervisor in CHE, has significant experience in the field of mental health. She guided my direction when I needed, but also let me develop as an independent researcher. Within the health economics research cluster I was given the opportunity to present my research ideas at a very early stage and received valuable feedback.

Alongside my research work, I refreshed my knowledge in basic economic

principles and developed methodological skills that are relevant for conducting my research. For example, I completed modules in Microeconomics and Health Econometrics, and attended a 3-day course on policy evaluation methods at the University of Southampton. Towards the end of 2016, I progressed into my second year of PhD. I finished my first analysis and prepared a paper for my first chapter that I am going to present at the Health Economics Study Group meeting in Birmingham in January 2017. I am looking forward to this opportunity as well as continuing my research at CHE. I am pleased to be part of the group of CHE PhD students who have become close friends to me as we support each other in this once in a lifetime experience.

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CHE RESEARCH PAPERS

123 Location, quality and choice of hospital: evidence from England 2002/3-2012/13 – **Giuseppe Moscelli**, Luigi Siciliani, **Nils Gutacker**, **Hugh Gravelle**.

124 Health equity indicators for the English NHS – **Richard Cookson**, **Miqdad Asaria**, **Shehzad Ali**, Brian Ferguson, Robert Fleetcroft, **Maria Goddard**, Peter Goldblatt, Mauro Laudicella, Rosalind Raine.

125 Eliciting the level of health inequality aversion in England – Matthew Robson, **Miqdad Asaria**, Aki Tsuchiya, **Shehzad Ali**, **Richard Cookson**.

126 Productivity of the English NHS: 2013/14 update – **Chris Bojke**, **Adriana Castelli**, **Katja Grašič**, **Daniel Howdon**, **Andrew Street**.

127 Medical spending and hospital inpatient care in England: an analysis over time – **María José Aragón**, **Martin Chalkley**, **Nigel Rice**.

128 Assessing the impact of health care expenditures on mortality using cross-country data – **Ryota Nakamura**, **James Lomas**, **Karl Claxton**, Farasat Bokhari, Rodrigo Moreno-Serra, **Marc Suhrcke**.

129 Socioeconomic inequalities in health care in England – **Richard Cookson**, Carol Propper, **Miqdad Asaria**, Rosalind Raine.

130 Optimal hospital payment rules under rationing by random waiting – **Hugh Gravelle**, Fred Schroyen.

131 The impact of taxation and signposting on diet: an online field study with breakfast cereals and soft drinks – Daniel John Zizzo, Melanie Parravano, **Ryota Nakamura**, Suzanna Forwood, **Marc Suhrcke**.

132 Years of good life based on income and health: re-engineering cost-benefit analysis to examine policy impacts on wellbeing and distributive justice – **Richard Cookson**, Owen Cotton-Barrett, Matthew Adler, **Miqdad Asaria**, Toby Ord.

133 Delayed discharges and hospital type: evidence from the English NHS – **James Gaughan**, **Hugh Gravelle**, Luigi Siciliani.

134 The impact of diabetes on labour market outcomes in Mexico: a panel data and biomarker analysis – Till Seuring, Pieter Serneels, **Marc Suhrcke**.

135 Fairer decisions, better health for all: health equity and cost-effectiveness analysis – **Richard Cookson**, **Andrew Mirelman**, **Miqdad Asaria**, Bryony Dawkins, **Susan Griffin**.

136 Supporting the development of an essential health package: Principles and initial assessment for Malawi – **Jessica Ochalek**, **Karl Claxton**, **Paul Revill**, **Mark Sculpher**, **Alexandra Rollinger**.

137 Funding of mental health services: Do available data support episodic payment? – **Rowena Jacobs**, **Martin Chalkley**, **María José Aragón**, Jan R. Böhnke, Mike Clark, Valerie Moran, Simon Gilbody.

138 Hospital productivity growth in the English NHS 2008/09 to 2013/14 – **María José Aragón**, **Adriana Castelli**, **Martin Chalkley**, **James Gaughan**.

139 Market structure, patient choice and hospital quality for elective patients – **Giuseppe Moscelli**, **Hugh Gravelle**, Luigi Siciliani.

140 Paying for performance for health care in low- and middle-income countries: an economic perspective – **Martin Chalkley**, **Andrew Mirelman**, Luigi Siciliani, **Marc Suhrcke**.

THE GLOBAL REACH OF CHE'S RESEARCH



Left to right:
Martin
Chalkley, Paul
Revill, Andrew
Mirelman

CHE's expertise and research has had broad ranging impacts on health policy across the UK and Europe. Starting in 2012, we engaged in a sustained commitment to extend our research for the benefit of low- and middle-income countries (LMICs) – work that we badge as Global Health. In 2016 we continued to expand our Global Health theme. We welcomed two new researchers – Rodrigo Moreno-Serra and Noemi Krief – whilst many others in CHE also now contribute to this area.

Our approach to Global Health has interlocking elements: developing new methods and knowledge relevant to LMICs; training partners in LMICs in health economics; and transferring knowledge through country engagement and collaborative studies.

An example of a project that illustrates our work is one that we commenced in Chile in 2016 funded by the UK Newton Fund

and the Chilean National Commission of Science and Technological Research. The project objective is to evaluate the sugar-sweetened beverage tax in Chile. A kick-off meeting was held in Santiago, Chile that included researchers from CHE, the Catholic University of Chile and the University of Santiago. Whilst there, we also delivered training on econometric methods and decision modelling and visited the Chilean Ministry of Health and Ministry of Finance to brief them on the project plans.

Health and health care in LMICs involves many organisations and agencies and we recognize the importance of partnerships. We have continued to build upon strong long-term collaborations, such as with the MRC Clinical Trials and the Center for Global Development, and we have collaborated with the Overseas Development Institute (ODI) Centre for Aid and Public Expenditure to review evidence on the impact of public financial management in LMIC health care systems (report to be launched January 2017). In June 2016, for a second year, we ran a health economics training day for new ODI Fellows beginning posts in Ministries of Health of 5 countries (Ghana, Nigeria, Malawi, Ethiopia and Thailand). We continue to work closely with the HIV Epidemiology and Biostatistics group at UCL on research exploring the cost-

effectiveness of new HIV interventions. We are also the health economics key partner in the HIV Modelling Consortium, and in that role have undertaken research on budgetary responses to manage HIV resource allocation in Africa.

We have made particular efforts in 2016 to strengthen our relationships with policymakers. This has included co-convening a health economics workshop with the World Health Organisation, attended by representatives of policy institutions such as the Global Fund to Fight AIDS, Tuberculosis and Malaria. We provided presentations on topics such as cost-effectiveness thresholds, discounting, health systems strengthening and industrial organization. We also ran a complementary workshop in Malawi, contributing to our work on that country's Essential Health Package.

All of us at CHE are looking forward to further exciting global health research activities to come in 2017.

* More details of CHE's global health research can be found at: <https://www.york.ac.uk/che/research/global-health/> Funding for the workshop with WHO was gratefully received from the University of York External Engagement Awards; see the report at: https://www.york.ac.uk/che/news/2016/che_who_geneva_meeting/

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Faria R. When and where in the treatment pathway is it appropriate to use new direct acting antivirals for chronic hepatitis C. *Society for Medical Decision Making (SMDM) 16th European, London, UK*. June 2016.

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Grasic K. Is it more dangerous to be admitted to some hospitals than others over the weekend? *EUHEA Conference 2016, Hamburg, Germany*. July 2016.

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Gutacker N. Using PROMs data to help patients make informed decisions. *The King's Fund, London, UK*. Apr 2016.

PRESENTATIONS

2016

Gutacker N. “Am I going to get better?” – Using PROMs to inform patients about the likely benefit of surgery. *PROMs Conference, Sheffield, UK.* June 2016.

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Gutacker N. Should incentives schemes target individual doctors? *EUHEA Conference 2016, Hamburg, Germany.* July 2016.

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Gutacker N. Using PROMs to incentivise performance – a cautionary tale from the English NHS. *ISOQOL 2016 Conference, Copenhagen, Denmark.* October 2016.

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Gutacker N. The effect of Best Practice Tariffs on the provision of day case treatment in the English NHS. *German Health Econometrics Workshop, Munich, Germany.* December 2016.

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Jacobs R. Care clusters and resource utilisation and links to payment models. *Institute of Mental Health, University of Nottingham, UK.* May 2016.

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Jacobs R. Efficiency measurement in healthcare. *University of Bergamo, Italy.* July 2016.

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Jacobs R. Quality of care and outcomes for people with Serious Mental Illness (SMI) in England: what can we learn from financial incentives and policy initiatives? *Mental Illness Awareness Week, University of Toronto, Canada.* October 2016.

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Kankeu H. How do supply side factors influence informal payments for healthcare? The case of HIV patients in Cameroon. *9th International AIDS Economics Network Pre-Conference, Durban, South Africa.* July 2016.

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Kankeu H. Peer effects in informal payments for health care: the case of HIV patients in Cameroon. *4th Global Symposium on Health Systems Research, Vancouver, Canada.* November 2016.

...

Kasteridis P. What are the inter-dependencies between health and social care and why does it matter? *EUHEA Conference 2016, Hamburg, Germany.* July 2016.

...

Kronenberg C. The long-term effect of education on adult mental health. *HERU, Aberdeen, UK.* June 2016.

...

Liu D. The effect of minimum wages on health in China. *72nd Annual Congress of the International Institute of Public Finance: Entrepreneurship, Innovation and Public Policy, Lake Tahoe, USA.* August 2016.

Liu D. The effect of incentive mechanisms on hypertension management in China: results from a cross-sectional survey three years after the 2009 healthcare reform. *The Chinese Economic Association (26th UK/ 7th Europe) Annual Conference: China's New Way of Integration with the World: The New Silk Road and the Opportunities for the World Economy, University of Duisburg-Essen, Duisburg, Germany.* September 2016.

...

Lomas J. Resolving the 'cost-effective but unaffordable' paradox: estimating cost-effectiveness thresholds when changes in expenditure are non-marginal. *Health Economists' Study Group, University of Manchester, UK.* January 2016

...

Lomas J. Estimating health opportunity costs in the NHS beyond '£13,000 per QALY': ongoing and future research'. *Analytical Lunchtime Seminar, Department of Health, Leeds, UK.* November 2016.

...

Lomas J. Which costs matter? The costs to be included in economic evaluation and their impact on decisions: the example of acute myocardial infarction. *Department of Health Sciences Seminar Series, Department of Health Sciences, University of York, UK.* November 2016.

...

Manca A. Developing new technologies in the era of person-centred healthcare: reflections of a health economist. *Department of Computer Science, University of York, UK.* February 2016.

...

Manca A. Policy evaluation in the person-centred health and social care era. *Luxembourg Institute of Health, Luxembourg.* March 2016

...

Manca A. Evaluation methods for decision making: the value of access to individual patient data. *Manchester Centre for Health Economics, University of Manchester, UK.* May 2016.

...

Manca A. Person-centred healthcare research at York. *University of York, UK.* June 2016.

...

Manca A. Cost-effectiveness analysis to inform Health Technology Assessment considerations in haematological oncology. *3rd International Conference on Multiple Myeloma, Milan, Italy.* October 2016.

...

Manca A. HTA of orphan drugs. *European Commission Committee for Orphan Medicinal Products (COMP) meeting, Rome, Italy.* October 2016.

...

Manca A. Increasing need to collect robust healthcare resource utilisation data in EUMDS: moving forward the field of MDS together. *EUMDS Stakeholders Meeting, Amsterdam University Medical Centre, The Netherlands.* October 2016.

...

Manca A. NIHR research fellowship programme: opportunities and challenges. *Department of Health Sciences, University of York, UK.* October 2016.

...

Manca A. NICE or Nasty? Reflections of a health economist serving on an appraisal committee. *York Haematological Support Group, York, UK.* October 2016.

Manca A. Cost effectiveness analysis and person-centred healthcare. *Medical School, University of Exeter, UK.* November 2016.

Manca A. Heterogeneity in PROs: friend or foe? *International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Meeting, Vienna, Austria.* November 2016.

Mason A. Commissioning public health services: the impact of the health reforms on access, health inequalities and innovation in service provision: emerging findings. *Department of Health, London and Leeds, UK.* November 2016.

Mirelman A. Decision modelling in economic evaluation. *University of Chile, Santiago, Chile.* April 2016.

Mirelman A. Decision rules in economic evaluation. *Health and the Wealth of Evidence: A workshop on using Health Technology Assessment (HTA) for priority setting in Indonesia. Jakarta, Indonesia.* April 2016.

Mirelman A. Uncertainty analysis in economic evaluation. *Health and the Wealth of Evidence: A workshop on using Health Technology Assessment (HTA) for priority setting in Indonesia. Jakarta, Indonesia.* April 2016.

Mirelman A. Social protection and the double burden of malnutrition. *School of Public Health and Family Medicine, University of Cape Town, South Africa.* October 2016.

Moscelli G. Hospital competition and quality for elective patients. *University of Duisburg-Essen, Duisburg, Germany.* May 2016.

Moscelli G. Choice of hospital: which type of quality matters? *PROMs Conference, Sheffield, UK.* June 2016.

Moscelli G. Hospital choice, competition, quality in elective care and endogeneity due to unobserved severity. *EUHEA Conference 2016, Hamburg, Germany.* July 2016.

Moscelli G. The effect of hospital ownership on elective hospital quality. Evidence from England. *Department of Health, Leeds, UK.* October 2016.

Moscelli G. The effect of hospital ownership on elective hospital quality. Evidence from England. *HEDG/AME Cluster Seminar Series, University of York, UK.* November 2016.

Ochalek J. Are current cost-effectiveness 'thresholds' for low- and middle- income countries useful? Examples from the world of vaccines. *Fondation Mérieux Conference: Estimating The Full Public Health Value of Vaccines. Annecy, France.* December 2016.

Ochalek J, Lomas J. Estimating cost effectiveness thresholds for high-income countries using cross-country data, *CERGAS Seminar. Bocconi University, Milan, Italy.* December 2016.

Revill P. Analysis-driven decision making for HIV programs. *World Bank Efficiency in Health Conference, Washington DC, USA.* February 2016.

Revill P. Determining value for money using cost-effectiveness analysis: cost-effectiveness thresholds. *HEDS/SchHARR Seminar, University of Sheffield, UK.* February 2016.

Revill P. Modelling and economic analysis for programme planning: the case of Malawi. *Programme Planning Reference Group/HIV Modelling Consortium Meeting, London, UK.* July 2016.

Revill P. Opportunity costs of healthcare spending in South Africa. *ISPOR South Africa Chapter Congress, Johannesburg, South Africa.* September 2016.

Revill P, Ochalek J. Using economics to inform spending on health care interventions: Malawi's essential health package 2017-22. *GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH), Bonn, Germany.* December 2016.

Rice N. The health and well-being effects of commuting: evidence from exogenous shocks. *Department of Transport, London, UK.* February 2016.

Rice N. The health and well-being effects of commuting: evidence from exogenous shocks. *Department of Economics, University of Venice, Italy.* April 2016.

Rice N. Acute health shocks and labour market outcomes. *Department of Economics, University College Dublin, Ireland.* November 2016.

Richardson G. Cost-effectiveness of interventions in parents and young children. *University of Uppsala, Sweden.* May 2016.

Richardson G. The family nurse partnership in the UK. *University of Linköping, Sweden.* June 2016.

Richardson G. Economic evaluation of pre-schoolers in the playground. *International Conference on Obesity and Chronic Diseases (ICOCD), Las Vegas, USA.* July 2016.

Richardson G, Stamuli E, Bell K, Corbacho Martin B, Ronaldson S (Department of Health Sciences, University of York). Economic evaluation within trials. *11th RCTS in the Social Sciences Conference, University of York, UK.* September 2016.

Rodriguez Santana I. Do female role models have an impact on the specialty choices of female medical students? Empirical evidence from the Spanish medical resident market. *EUHEA Conference 2016, Hamburg, Germany.* July 2016.

Rodriguez Santana I. Analysing the gender gap in the medical specialties. Empirical evidence for the Spanish resident market. *2016 Workshop on Labour and Family Economics (WOLFE), University of York, UK.* September 2016.

Rothery C. New drugs in lymphoma treatment: economic sustainability. *VIII International Meeting on Hematology, Florence, Italy.* April 2016.

PRESENTATIONS

2016

Rothery C, Glynn D. Workshop on the use of value of information analysis in health technology assessment. *ISPOR 19th Annual European Congress*, Vienna, Austria. October 2016.

...

Sculpher M. Making economic evaluation fit for purpose to support decisions. *Third Annual Global Health Economics Consortium Colloquium: Valuing Health*, University of California, San Francisco, USA. February 2016.

...

Sculpher M. CEA should be the primary decision making criterion in decisions about health technology and services. *University of Toronto, Canada*. May 2016.

...

Sculpher M. Enduring challenges in specifying economic analysis to support resource allocation decisions: reflections on two guidelines. *Centre for Global Development*. Washington DC, USA. May 2016.

...

Sculpher M. Cost-effectiveness thresholds: should we be generating more empirical evidence and, if so, how? *Issues Panel at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Meeting*, Washington DC, USA. May 2016.

...

Sculpher M. How should we reflect a range of criteria in resource allocation decisions? *EUHEA Conference 2016*, Hamburg, Germany. July 2016.

...

Sculpher M. Making economic evaluation fit for purpose to guide resource allocation decisions. *Department of Health Economics, Center for Public Health, Medical University of Vienna, Austria*. October 2016.

...

Sculpher M. Finding the right place for “real world data”: quantifying uncertainty, prioritizing and incentivizing (appropriate) research. *Issues Panel at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Meeting*, Vienna, Austria. November 2016.

...

Sculpher M. Controversies and issues. *Presentation at the launch conference of the Second Panel on Cost-Effectiveness in Health and Medicine*, Washington DC, USA. December 2016.

...

Street A. The financial crisis in the NHS. *Radical Statistics Conference*, York, UK. February 2016.

...

Street A. Rising demand, tighter budgets: what reforms will make ends meet? *Spanish Health Economics Association Conference*, Murcia, Spain. June 2016.

...

Street A. Universal health coverage. *Summer school in public health policy, economics and management*, Università della Svizzera Italiana, Lugano, Switzerland. September 2016.

...

Street A. What impact does hospital treatment have on health status? *38th Annual Australian Health Economics Society Conference*. Fremantle, Perth, Australia. September 2016

...

Street A. International experience of activity based funding. *Western Australian Department of Health*, Perth, Australia. September 2016.

Street A. How should hospital reimbursement be refined to support concentration of specialised services? *Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Australia*. October 2016.

...

Street A. What impact does hospital treatment have on health status? *Victorian Department of Health and Human Services*, Melbourne, Australia. October 2016.

...

Street A. Workshop on measuring productivity in healthcare. *Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Australia*. October 2016.

...

Street A. Multi-morbidity matters! Explaining utilisation and costs across health and social care settings. *Deakin University Health Economics Unit, Melbourne, Australia*. October 2016.

...

Weatherly H. The economic value of public health interventions. *Scientific Symposium of the 12th Pharmacies Congress*, Lisbon, Portugal. April 2016.

...

Weatherly H. Assessing the challenges of applying standard economic evaluation methods to health and social care interventions. *HERU, Aberdeen, UK*. June 2016.

...

Weatherly H. Issues in the economic evaluation of social care interventions: reablement case study. *EUHEA Conference 2016*, Hamburg, Germany. July 2016.

...

Weatherly H. Methods issues in the economic evaluation of reablement. *Priorities Conference*, University of Birmingham, UK. September 2016.

...

Woods B. Recent methods developments in economic evaluation: non-health constraints. *World Health Organization*, Geneva, Switzerland. March 2016.

...

Woods B. Resource allocation decisions and budgetary policies under conditions of uncertainty: an example in HIV. *Department of Infectious Disease Epidemiology, Imperial College London, UK*. March 2016.

...

Woods B. Partitioned survival analysis: a critical review of the approach and application to decision modelling in health care. *Society for Medical Decision Making (SMDM) 16th European*, London, UK. June 2016.

...

Woods B. Resource allocation decisions and budgetary policies under conditions of uncertainty. *Society for Medical Decision Making (SMDM) 16th European*, London, UK. June 2016.

...

Woods B. Partitioned survival analysis: a critical review of the approach and application to decision modelling in health care. *HEDS, University of Sheffield, UK*. June 2016.

...

Woods B. Managing programmes and budgets in an uncertain world: an HIV modelling study. *York Centre for Complex Systems Analysis*, York UK. December 2016.

RESEARCH STAFF

- **Maria Goddard**
Professor and Director
of CHE
...
- **Maria Jose Aragon**
Research Fellow
...
- **Miqdad Asaria**
Research Fellow
...
- **Chris Bojke**
Senior Research Fellow
...
- **Laura Bojke**
Senior Research Fellow
...
- **Adriana Castelli**
Research Fellow
...
- **Martin Chalkley**
Professor
...
- **Fadi Chehadah**
Research Fellow
...
- **Karl Claxton**
Professor
...
- **Richard Cookson**
Professor
...
- **Edward Cox**
NIHR Research
Methods Fellow
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- **Michael Drummond**
Professor
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- **Ana Duarte**
Research Fellow
- **Rita Faria**
Research Fellow
...
- **James Gaughan**
Research Fellow
...
- **Katja Grašič**
Research Fellow
...
- **Hugh Gravelle**
Professor
...
- **Susan Griffin**
Senior Research Fellow
...
- **Alessandro Grosso**
NIHR Research
Methods Fellow
...
- **Nils Gutacker**
Research Fellow
...
- **Sebastian Hinde**
Research Fellow
...
- **Dan Howdon**
Research Fellow
...
- **Rowena Jacobs**
Professor
...
- **Hyacinthe Kankeu**
Research Fellow
...
- **Panos Kasteridis**
Research Fellow
...
- **Noemi Kreif**
Research Fellow
...
- **Christoph Kronenberg**
Research Fellow
- **Dan Liu**
Research Fellow
...
- **James Lomas**
Research Fellow
...
- **Andrea Manca**
Professor
...
- **Anne Mason**
Senior Research Fellow
...
- **Andrew Mirelman**
Research Fellow
...
- **Rodrigo Moreno-Serra**
Reader
...
- **Giuseppe Moscelli**
Research Fellow
...
- **Ryota Nakamura**
Research Fellow
...
- **Jessica Ochalek**
Research Fellow
...
- **Stephen Palmer**
Professor
...
- **Thomas Patton**
Research Fellow
...
- **Mathilde Peron**
Research Fellow
...
- **Paul Revill**
Senior Research Fellow
- **Nigel Rice**
Professor
...
- **Gerry Richardson**
Senior Research Fellow
...
- **Idaira Rodriguez Santana**
Research Fellow
...
- **Claire Rothery**
Senior Research Fellow
...
- **Rita Santos**
Research Fellow
...
- **Pedro Saramago Goncalves**
Research Fellow
...
- **Mark Sculpher**
Professor
...
- **Eleftherios Sideris**
Research Fellow
...
- **Marta Soares**
Senior Research Fellow
...
- **Andrew Street**
Professor
...
- **Marc Suhrcke**
Professor
...
- **Simon Walker**
Research Fellow
...
- **Helen Weatherly**
Senior Research Fellow
...
- **Beth Woods**
Research Fellow

NEW RESEARCH STAFF



Alessandro Grosso completed an MSc in Economics and Social Sciences at Bocconi University where he earned the Graduate Merit Award, and joined CHE in September 2016.



Hyacinthe Kankeu was a Research and Teaching Assistant in Economics at Aix-Marseille University (France) and joined the Team for Economic Evaluation and Health Technology Assessment (TEEHTA) in February 2016.



Noemi Kreif recently joined the Global Health Group at CHE where she is working on quantitative evaluations of health policies in low- and middle-income settings.



Rodrigo Moreno-Serra was previously a Lecturer at the Department of Economics, University of Sheffield (2014-16), and an MRC Postdoctoral Research Fellow at Imperial College London Business School before coming to CHE in September 2016 as a Reader in the Global Health Group. In 2016, Rodrigo was awarded the American Economic Journal: Economic Policy "Best Paper Prize" by the American Economic Association, for his joint paper with Martin Gaynor and Carol Propper on hospital competition in the NHS: "Death by Market Power: Reform, Competition, and Patient Outcomes in the National Health Service", American Economic Journal: Economic Policy, 2013.



Mathilde Peron joined the Team for Economic Evaluation and Health Technology Assessment (TEEHTA) in July 2016. She especially works on Technology assessments for the National Institute for Health and Care Excellence (NICE).



Idaira Rodríguez Santana, who is also a PhD student at CHE, joined the Health Policy team in November 2016. The focus of her doctoral research is on the economics and econometrics of the workforce within the healthcare sector.

PhD STUDENTS 2016

- **Misael Anaya Montes**
...
- **Chen Chen**
...
- **Gowokani Chirwa**
...
- **David Glynn**
...
- **Dina Jankovic**
...
- **James Love-Koh**
...
- **Valerie Moran**
...
- **Richard Mattock**
...
- **Giorgios Nikolaidis**
...
- **Francesco Ramponi**
...
- **Anika Reichart**
...
- **Irene Sanchez**

NEW PhD STUDENTS



Misael Anaya Montes

His research focuses on economic analysis for health policy in the Peruvian health system and he is funded by the Peruvian government through Programa Reto Excelencia of the Autoridad Nacional del Servicio Civil - SERVIR.



Richard Mattock

His PhD topic focuses on methods for estimating the life-time economic outcomes of early childhood interventions.



Gowokani Chirwa

His main interests are in the application of econometric methods in health. Currently he is doing research in micro health insurance in low- and middle-income countries.



Giorgios Nikolaidis

His doctoral research focuses on the development of statistical methods for the 'sharing of information' and 'borrowing strength' to assist Health Technology Assessments. His interests include Bayesian evidence synthesis for economic evaluation, indirect and mixed treatments comparisons, and econometric methods to model non-linear data.

RESEARCH FELLOWS ALSO REGISTERED FOR A PhD

- | | |
|-------------------------------|-----------------------------------|
| ● James Gaughan
... | ● Rita Santos
... |
| ● Katja Grašič | ● Idaira Rodríguez Santana |

EMERITUS PROFESSORS

- **Tony Culyer**

HONORARY PROFESSORS

- **Peter C Smith**
January 2011–January 2020

HONORARY VISITING FELLOWS

- **Marco Barbieri**
February 2013–31 January 2017
- **Mark Dusheiko**
January 2016–31 December 2018
- **David Epstein**
February 2011–31 January 2017
- **Rob Hettle**
February 2016–31 January 2019
- **Jon Sussex**
June 2014–31 July 2017

VISITORS TO CHE DURING 2016

- **Francesca Zantomio**
University of Venice, Italy
- **Professor Kanchan Mukherjee**
Centre for Health Policy, Planning and Management, Tata Institute of Social Sciences, India
- **Liam Wren-Lewis**
Paris School of Economics, France
- **Silvana Robone**
University of Bologna, Italy
- **Mark Harris**
Curtin University, Australia
- **Elisabetta Listorti**
Politecnico di Torino, Italy
- **Rohan Sweeney**
Monash University, Australia

- **Polina Putrik**
Maastricht University School for Public Health and Primary Care, Netherlands
- **Martin Henriksson**
Linköping University, Sweden
- **Professor Clive Landis**
Cavehill, the University of the West Indies
- **Giovanni van Empel**
Universitas Gadjah Mada, Indonesia
- **Juying Zeng**
JZhejiang University, China

ADMINISTRATIVE AND SUPPORT STAFF

- **Kerry Atkinson**
Administrator
- **Linda Baillie**
Administrator
- **Louise Campbell**
Administrator
- **Gill Forder**
Publications Administrator
- **Kay Fountain**
Administrator
- **John Galloway**
Computer Support Officer
- **Liz Grant**
Finance and Research Support Officer
- **Ruth Helstrip**
Project Coordinator

- **Vanessa King**
Administrator and Assistant to the Director
- **Gillian Robinson**
Administrator
- **Alexandra Rollinger**
Project Coordinator
- **Frances Sharp**
Publications Manager
- **Trish Smith**
Centre Manager
- **Rachel Wilkinson**
Finance and Research Support Administrator
- **Vanessa Wood**
Finance and Research Support Officer

NEW ADMINISTRATIVE AND SUPPORT STAFF



Kay Fountain joined CHE in May 2016 as an Administrator and she supports the work of the Centre.



Rachel Wilkinson is CHE's Finance and Research Support Administrator, assisting with the day to day finances for the Centre. She also deals with the finances for all Global Health research projects and grants. She has been with CHE since October 2016.



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Committed to the advancement
of gender equality: representation,
progression and success for all.