



UNIVERSITY  
*of York*

RESEARCH



Centre For Health Economics

# 2018. ANNUAL REPORT

INFORMING POLICY AND PRACTICE  
ECONOMIC ANALYSIS OF  
WORLDWIDE REPUTE

[www.york.ac.uk/che](http://www.york.ac.uk/che)

# Contents

---

Welcome to the 2018 annual report for the Centre for Health Economics .....	3
News and events 2018. ....	4
Antimicrobial resistant infections .....	6
Research projects in progress and completed in 2018 .....	7
Tackling underdiagnosis in dementia .....	9
The effects of government contracting with faith based providers in Malawi on maternal care utilisation .....	11
Doctor who? The influence of doctors' socio- demographic characteristics on medical specialty allocation .....	13
Who cares about 'value for money' in global health? .....	15
How efficient are the health systems of Latin America and the Caribbean – and why? .....	17
Courses and workshops .....	18
Including the health inequality impact of policies in funding decisions .....	19
Publications 2018 .....	20
Funding for mental health services in England: The challenge of an appropriate classification system ...	21
Fiscal policies for health: Impact evaluations echoing around the world .....	23
Marie Skłodowska-Curie European Training Network PhD students .....	27
Presentations 2018 .....	29
Staff .....	36



# Welcome to the 2018 annual report for the Centre for Health Economics



At the heart of the research we do at CHE is a commitment to make a difference: to inform health and social care policy and practice at local, national and international levels, with the ultimate aim of promoting health and wellbeing and reducing health inequalities. This, as most researchers will know all too well, is far easier to write than it is to deliver! But one key route to maximise the impact of health economics research on national policy, is through the programme of NIHR funded Policy Research Units, in which CHE has been involved for some years. We were therefore delighted to succeed in our bid to lead two of the research units for a further five years, in partnership with colleagues in other institutions, as well as contributing as collaborators to a further two units. We look forward to pursuing some exciting policy research agendas, enhancing our existing links with decision-makers and helping to inform policy decisions.

A strong policy focus also defined much of our research in 2018, at local, national and international level, of which these are just a few examples: evaluating the impact of specialist rehabilitation services in North Yorkshire and Humber; investigation of the prevalence and economic burden of medication errors in order to improve prescribing safety; assessment of local authority commissioning of NHS health-checks; evaluation of the sugar-sweetened beverage tax in Chile; supporting the development of health benefits packages in Malawi; estimating the impact of care plans for people with serious mental illness; and appraisal of alternative delivery strategies for antiretroviral therapy in eleven countries. Underpinning our policy – related research is an equally important focus on conceptual and methods development and during the past year we have published on a wide range of topics, some of which are reflected amongst over 100 published outputs that are documented throughout this report.

Following the sad death of Professor Alan Maynard, we commemorated his immense contribution to the Centre for Health Economics, the University of York and the wider health economics and policy community in a number of ways. These included naming a lecture theatre after him, planting a tree and commissioning a commemorative plaque for the “quiet place” garden on campus, and writing about the enduring influence of Alan – always the “sceptical economist” – on current health policy issues and debates (*Goddard and Bloor, 2018*). Further activities have also taken place in 2019, including commemorations at the Health Economists



Study Group conference in York and details of these have been reported in our **newsletters** and on our **website**.

Some of our current and recently completed research projects are profiled in a set of short articles in this report. We also celebrate the achievements and activities of staff and students, including PhD awards and promotion success. We also have progress reports from our two PhD students funded by the Marie Skłodowska-Curie European Training Network, describing their experiences during the first year of training. I was delighted that our Athena SWAN bronze award was renewed and we have ambitions to advance our commitment to equality further in the coming year. Last, it was an immense pleasure that CHE was named as one of the UK's 100 “Best Breakthroughs” for having a significant impact on people's lives by making healthcare systems fairer and more effective. That is a fantastic tribute both to the health economics discipline generally and also to the talent and dedication of CHE staff and students over many years.

*Mania Goddard*

# News and events 2018

## NEW POLICY RESEARCH UNITS

The National Institute for Health Research (NIHR) announced a set of 13 new NIHR Policy Research Units. These will provide both a long-term resource for policy research and a rapid-response service to provide evidence for emerging policy needs. The units, which are considered to be an exemplar of good practice in government, will also offer advice to policy makers and analysts on the evidence base and options for policy development.



The Centre for Health Economics (CHE) is leading two of these units. Economic Methods of Evaluation in Health and Social Care Interventions (EEPRU), in collaboration with the University of Sheffield, and Economics of Health Systems and Interface with Social Care (ESHCRU), along with partners at the LSE.

CHE is also part of the NIHR Policy Research Unit in Public Health, which is run by the London School of Hygiene and Tropical Medicine, and also contributes to the NIHR Policy Research Unit in Cancer Awareness, Screening and Early Diagnosis, which has a shared post with EEPRU.



*"EEPRU works in the field of economic evaluation of interventions, programmes and policies right across the DHSC's remit, including medical care, social care and public health. It has a role in developing new, and refining existing, methods of economic evaluation, as well as supporting other PRUs in terms of research methods, but also undertakes applied research in the field. The early programme of research includes work to estimate the marginal productivity of the NHS, and the social care and public health sectors; validation of the 'extended QALY'; and the cost-effectiveness of stratified breast cancer screening."*

**Mark Sculpher**, Co-Director NIHR Policy Research Unit in Economic Methods of Evaluation in Health and Social Care Interventions

*"The unique focus of our Unit – ESHCRU II – is on the interactions between the health and care systems, the cross-cutting issues facing both sectors, and their interdependencies. By applying state-of-the-art tools of economic and statistical analysis, our research will help ensure that policies are designed to take full account of the impact on patients and citizens across the entire health and care landscape, rather than focusing on the effect in one sector in isolation."*

**Anne Mason**, Director NIHR Policy Research Unit in Economics of Health Systems and Interface with Social Care

## UK's best breakthrough

CHE was named as one of the UK's 100 best breakthroughs for its significant impact on people's everyday lives by making healthcare systems fairer and more effective.

The list was compiled by Universities UK, the umbrella group for UK universities, as part of the MadeAtUni campaign to change public perceptions of universities and bring to life the difference they make to people and communities across the UK.



## Alan Maynard

We were very sad to announce the death of Alan Maynard, founder of CHE, who died on 2 February 2018. A massive

influence in the national and international world of health economics and policy, and quite simply, a lovely and genuine person, he will be missed greatly by all of us.

A series of commemorations and events have taken place over the last year in honour of Alan's life.

## CHE IN THE MEDIA

In January, **Karl Claxton** provided expert analysis for BBC2's 'Trust me I'm a Doctor' programme, looking at the relationship between the cost of new medicines and how much the NHS can afford to pay for the benefits they offer.



**Rowena Jacobs** explained in a series of interviews with the NIHR how a new study is, for the first time ever, bringing data together from a range of sources to identify ways of improving the quality of primary care for patients with serious mental illness and the impact it is likely to have.



Articles were written by CHE staff for the **The Conversation** including: **'Fact check: are there more beds available across the NHS?'** by **Katja Grašič** and **'The NHS and the Budget 2018'**, **'The NHS explained in eight charts'** and **'Is the 3.4% spending increase enough to 'save' the NHS?'** by **Maria Goddard**.



The NHS celebrated its 70th birthday year in 2018. CHE marked this event with various activities:

- Celebrating York's role in the rise of evidence-based healthcare. In an interview with **Maria Goddard**, Karen Bloor and Karl Atkin, the role of health economics – past and present – in supporting evidence-based healthcare, was explored.
- In April, **Maria Goddard** gave some short interviews with six local radio stations as part of a BBC radio series looking at 'What would life be like without the NHS?'



# News and events 2018

## Staff achievements

**Richard Cookson, Andrew Mirelman, Susan Griffin, Miqdad Asaria, Bryony Dawkins, Ole Norheim, Stephane Verguet and Tony Culyer**, authors of the paper '*Using cost-effectiveness analysis to address equity concerns*', won The 2018 ISPOR 'Value in Health Paper of the Year Award'. **Andrew Mirelman** (pictured with other award winners), accepted the award on behalf of the authors.



**Claire Rothery** received the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Distinguished Service Award for excellent leadership of the Task Force on Emerging Good Practices for Value of Information Analysis.

Research '*Identifying primary care quality indicators for people with serious mental illness*' made the top 10 list in the British Journal of General Practice for 2017. The study, authored by Chris Kronenberg, Tim Doran, **Maria Goddard**, Tony Kendrick, Simon Gilbody, Lauren Aylott and **Rowena Jacobs**, provided a systematic review of potential quality indicators which could be captured using routine data, and which could be used to monitor or incentivise better-quality primary care for patients with schizophrenia, bipolar disorder, and other psychoses.



The authors identified 59 indicators, of which 52 could be assessed using routine data. They conclude that the evidence base underpinning these indicators is relatively weak and, before the indicators can be used to monitor or incentivise primary care quality, more robust links need to be established with improved patient outcomes.

### PHD SUCCESS FOR:



James Love-Koh



Idaira Rodríguez Santana



Irene Sanchez



Ieva Skarda



Rita Santos



Dina Jankovic



Jemimah Ride

### PROMOTION SUCCESS FOR:



Helen Weatherly



Laura Bojke



Nils Gutacker



Simon Walker



Alex Rollinger



# Antimicrobial resistant infections



**CLAIRE ROTHERY, BETH WOODS, LAETITIA SCHMITT,  
KARL CLAXTON, STEPHEN PALMER, MARK SCULPHER**

**Antimicrobial resistant infections are a major global health concern. For some time, governments and international bodies have recognised the need to provide appropriate incentives to drug manufacturers to encourage the development of new antibiotics. However, it is now being recognised that these incentives should be commensurate with health gains the new antibiotics are expected to bring.**

Antimicrobial resistance is a major concern, as infectious organisms become increasingly resistant to available treatments. Pharmaceutical and biotechnology industries, however, are becoming reluctant to develop new drugs, citing limited return on investment. Currently, a conventional payment method is employed to fund new antimicrobials, which is based on how much of the drug the NHS uses. Some new antimicrobials are held in reserve for use only when existing products are ineffective due to resistance, but this strategy limits revenues to manufacturers, reducing the attractiveness of developing new antimicrobials. The government is therefore considering a novel payment approach where the NHS pays for access to the drug; this means that payment is 'delinked' from the amount of the drug that is actually used. Establishing appropriate levels of payment, however, is complex.

As part of the Policy Research Unit in Economic Methods of Evaluation in Health and Social Care Interventions (EEPRU), we considered how the National Institute for Health and Care Excellence (NICE) could appraise these new drugs so that the NHS can make informed decisions on sustainable funding. Antimicrobials offer a range of benefits that are not typically offered by other treatments. For example, introduction of a new antibiotic may impact the spread of resistant infections amongst the population. This work demonstrates how these benefits can be quantified in terms of population health, whilst appropriately accounting for the health benefits that could be produced if resources needed for the new drugs were devoted to other NHS activities. The work addresses the evidential and modelling challenges faced when quantifying the effects of introducing a new antimicrobial. Recommendations

also address how NICE appraisal processes could be modified to accommodate antimicrobials. There are likely to be high levels of uncertainty about the long-term benefits of new antimicrobials. The report recommends that funding decisions are flexible over time, to accommodate the emergence of new research and surveillance data.

The importance of these issues and the CHE report have been recognised by Chief Medical Officer for England, Professor Dame Sally Davies, who said: "Ensuring the NHS pays a fair price for new antimicrobials whilst conserving their use is essential and this report provides a platform to deliver this." The work is expected to provide the foundation for pilot NICE assessments of new antimicrobials due to start this year.

Link to the report: <http://www.eepru.org.uk/article/framework-for-value-assessment-of-new-antimicrobials-implications-of-alternative-funding-arrangements-for-nice-appraisal/>

# Research projects in progress and completed in 2018

## ■ 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**
- **Department for International Development (DFID)**
- **Economic & Social Research Council (ESRC)**
- **Engineering and Physical Sciences Research Council (EPSRC)**
- **European Commission**
- **European & Developing Countries Clinical Trials Partnership (EDCTP)**
- **European Commission**
  - Innovative Medicines Initiative (IMI) H2020 programme
- **European Union Horizon 2020 research and innovation programme : Marie Skłodowska-Curie grant**
- **EuroQol Research Foundation**
- **German Ministry for Education and Research**
- **Harrogate and District NHS Foundation**
- **Health Foundation**
- **Inter-American Development Bank**
- **International Development Research Centre (IDRC), Canada**
- **Luxembourg Institute of Health**
- **Medical Research Council (MRC)**
  - GCRF Foundation
  - Newton Fund
- **National Institute for Health Research (NIHR)**
  - Central Commissioning Facility (CCF)
  - Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber (CLAHRC YH)
  - Department of Health and Social Care (DHSC)
  - Economics of Social and Health Care Research Unit (ESHCRU)
  - Global Health Research
  - Health Services & Delivery Research (HS & DR)
  - Health Technology Assessment (HTA)
  - NIHR Evaluation Trials and Studies Coordinating Centre (NETSCC)
  - Policy Research Programme (PRP)
  - Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU)
  - Programme Grants for Applied Research (PgFAR)
  - Public Health Research (PHR)
  - Public Health Research Consortium (PHRC)
  - Research and Development (R&D) Programme
  - 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)**
- **NHS England**
- **NHS London Clinical Networks**
- **Northern Health Science Alliance (NHSa)**
- **Oxford Consultants for Social Inclusion**
- **Public Health England**
- **Patented Medicine Prices Review Board – Government of Canada (PMPRB)**
- **Research Council of Norway**
- **Research Councils UK**
  - GCRF
- **The World Bank**
- **University of York**
  - Centre for Future Health
  - HEFCE GCRF QR (Pump-Priming for ODA-Compliant Research & Activities)
- **Wellcome Trust**
- **Yorkshire Cancer Research (YCR)**
- **Yeovil District Hospital NHS Foundation Trust**
- **York Teaching Hospital NHS Foundation Trust**

# Research projects in progress and completed in 2018

## ■ Economic evaluation

### Assessing a brief Value of Information (VoI) method for its potential use in assisting panel and board decision making

Claire Rothery, Karl Claxton, David Glynn  
Funder: NIHR HTA

### Canadian CE threshold to inform price setting

Jessica Ochalek, James Lomas, Karl Claxton (CHE), Chris McCabe (University of Alberta)  
Funder: PMPRB

### Cost-effectiveness analysis of CE-MARC II (Clinical Evaluation of 3T Magnetic Resonance imaging for the management of patients with Coronary heart disease)

Simon Walker, Edward Cox, Mark Sculpher (CHE), John Greenwood (University of Leeds)  
Funder: British Heart Foundation

### De-linking reimbursement of antimicrobials from volumes sold: assessing alternative arrangements and implications for NICE appraisal

Claire Rothery, Beth Woods, Mark Sculpher, Laetitia Schmitt, Stephen Palmer, Karl Claxton  
Funder: DHSC PRP EEPRU

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

Laura Bojke, Marta Soares, Karl Claxton, Aimée Fox, Dina Jankovic  
Funder: MRC

### Developing peer Mentorship to improve self-management of Osteoarthritis: A feasibility study (aMigO study)

Gerry Richardson  
Funder: NIHR RfPB

### Disinvestment threshold

Susan Griffin, Francesco Fusco  
Funder: NICE EMU Project 2018

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

Sebastian Hinde, Susan Griffin, Mark Sculpher  
Funder: DHSC PRP EEPRU

### Economic evaluation of public health programmes with costs and effects falling outside the NHS and local authority

Mark Sculpher, Susan Griffin, Simon Walker (CHE), Miqdad Asaria (LSE)  
Funder: DHSC PHRC

### 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 EEPRU

### Exploring and quantifying preferences towards self-management support interventions

Andrea Manca  
Funder: Health Foundation

### Facilitating patient choice in haemato-oncology

Andrea Manca, Hyacinthe Kankeu, Alastair Bennett  
Funder: NIHR Programme Grant

### FARSTER – Feasibility study of early outpatient review and early cardiac rehabilitation after coronary artery bypass grafting

Sebastian Hinde  
Funder: NIHR HTA

### 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, Mark Sculpher  
Funder: NIHR HTA

### 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 (CHE), Tracey Young, John Brazier (University of Sheffield)  
Funder: NIHR CLAHRC YH

### 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

### 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, James Lomas, Pedro Saramago Goncalves  
Funder: NIHR TARs

### NICE Economic and Methodological Unit (EMU)

Helen Weatherly, Susan Griffin, Simon Walker, Rita Faria, Mark Sculpher (With York Health Economics Consortium)  
Funder: NICE

### Partners at Care Transitions (PACT): Improving patient experience and safety at transitions of care

Gerry Richardson  
Funder: NIHR PGfAR

### Prevalence and economic burden of medication errors in the NHS in England

Rita Faria, Mark Sculpher, Dina Jankovic (CHE), Rachel Elliott, Elizabeth Camacho (University of Manchester), Fiona Campbell, Marissa Martyn St James, Ruth Wong, Eva Kaltenthaler (University of Sheffield)  
Funder: DHSC PRP EEPRU

### PREVAIL – PREVenting infection using Antibiotic Impregnated Long lines

Laura Bojke, Rita Faria, Alessandro Grosso (CHE), Ruth Gilbert (UCL)  
Funder: NIHR HTA NETSCC



# Tackling underdiagnosis in dementia

ANNE MASON, DAN LIU, PANAGIOTIS KASTERIDIS, MARIA GODDARD, ROWENA JACOBS (CHE), RAPHAEL WITTENBERG (London School of Economics and Political Science), EMILY GREEN (Public Health England), GERARD MCGONIGAL (York Teaching Hospital NHS Foundation Trust)

## Receiving a timely diagnosis of dementia can help patients and their families to access the care and support they need.

In 2009, just half of people with dementia had received a formal diagnosis. NHS England announced a package of measures to tackle the problem of 'underdiagnosis' and improve care and support for patients and their families. The package included two voluntary financial incentive schemes in primary care. These were designed to raise the dementia diagnosis rate to two-thirds of the 'expected' number of cases – the predicted number based on age, sex, and care home residency.

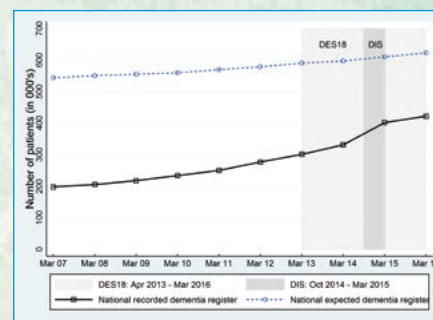
Our studies examined whether the schemes had worked, and whether there were any unintended consequences – either positive or negative.

First, did they work? The schemes were introduced at different times, they overlapped, and practices dropped in and out. Isolating their impact was therefore very challenging. Difference-in-differences

methods go beyond simple 'before and after' comparisons, by comparing changes in those that took part with changes in those that did not. Our design has another layer of complexity, in that it allows for multiple schemes.

The outcome was the percentage of expected cases of dementia that was recorded on the practice dementia register (the 'rate'). During the time the schemes were active, the average practice rate rose from 52% to 69%. Only part of this increase was due to the two schemes: together, they increased GP dementia registers nationally by around 40,000 cases; this figure would have been almost 50,000 if all practices had chosen to take part.<sup>1</sup>

Second, we looked at possible unintended effects on the quality of care and on patient experience. Both schemes were linked to higher quality care for existing



dementia patients, and for people with other conditions. But the effects on patient experience were mixed. Both schemes were linked to small reductions in confidence and trust in the GP and to lower continuity of care, though effects on the other measures of patient experience were inconsistent.<sup>2</sup> As these patient experience measures are from the GP Patient Survey, which covers a small fraction of practice patients, we need to be cautious. More detailed research is needed to check these findings, and to understand what might be done to prevent any 'side effects' arising in future.

## Publications

1. Mason A, Liu D, Kasteridis P, Goddard MK, Jacobs R, Wittenberg R, McGonigal G. *Investigating the impact of primary care payments on underdiagnosis in dementia: A difference-in-differences analysis*. *International Journal of Geriatric Psychiatry* 2018;33(8):1090-1097.
2. Liu D, Green E, Kasteridis P, Goddard MK, Jacobs R, Wittenberg R, Mason A. *Incentive schemes to increase dementia diagnoses in primary care in England: A retrospective cohort study of unintended consequences*. *British Journal of General Practice* 2019;69(680):e154-e163.

SCHEME	DATES	DESCRIPTION	TOTAL BUDGET
Directed Enhanced Service 18 (DES18)	April 2013 – March 2016	Aim: to facilitate timely diagnosis and support for people with dementia. Paid GPs for assessing 'at risk' patients  People diagnosed with dementia invited to develop and advanced care plan and carers offered a health check	£126m
Dementia Identification Scheme (DIS)	Sept 2014 – March 2015	Paid GPs £55 for each additional case on the practice dementia register, based on the change in the register between September 2014 and March 2015.	£5m

# Research projects in progress and completed in 2018

## 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, Simon Walker (CHE)  
Funder: NIHR SSCR

## REVIVED – REvascularisation for Ischaemic VENTricular Dysfunction: a randomised comparison of percutaneous coronary intervention (with optimal medical therapy) versus optimal medical therapy alone for heart failure secondary to coronary

Mark Sculpher  
Funder: NIHR HTA

## SHIFT – A cluster randomised controlled trial to investigate the effectiveness and cost-effectiveness of a Structured Health Intervention For Truckers

Gerry Richardson  
Funder: NIHR PHR

## Strategies for reducing sitting time in office workers: a three arm cluster randomised controlled trial

Gerry Richardson  
Funder: NIHR PHR

## 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

## 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 EEPURU

## The cost-effectiveness of cascade testing for familial hypercholesterolaemia

Mark Sculpher, Beth Woods, Pedro Saramago Goncalves, Rita Faria, Susan Griffin  
Funder: NIHR HTA

## The wearable clinic for digital care services

Andrea Manca, Vijay Gc  
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)

Gerry Richardson (CHE), Amar Rangan (The James Cook University Hospital)  
Funder: NIHR HTA

## Health policy

### Characterising end-of-life hospital expenditure

Nigel Rice, Panos Kasteridis, Rita Santos  
Funder: NIHR PRP ESHCRU

### Determinants of provider responsiveness to financial incentives to improve quality and efficiency (BPT)

Nils Gutacker, James Gaughan (CHE), Luigi Siciliani (DERS, York)  
Funder: NIHR PRP ESHCRU

### Does commuting affect health and well being?

Nigel Rice, Nikita Jacobs  
Funder: ESRC

### European Training Network: Improving Quality of Care in Europe (IQCE)

Martin Chalkley (CHE), Luigi Siciliani (DERS, York) in collaboration with Universität Hamburg (Lead), Universidade de Lisboa, University of Southern Denmark, Bocconi University, Erasmus University Rotterdam.  
Funder: European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 721402

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

Katja Grašič, Nils Gutacker, James Gaughan (CHE), Andrew Street (LSE)  
Funder: NHS England

### Evaluation of Yorkshire Ambulance Service urgent and emergency care nurse internship programme

Jemimah Ride, Nils Gutacker  
Funder: ESRC IAA

## Fast response analytical facility

Karen Bloor, Tim Doran (Department of Health Sciences, York), Yvonne Birks (SPRU, York), Anne Mason (CHE)  
Funder: NIHR PRP CCF

## General Practitioners and Emergency Department (GPED)

Nils Gutacker, Dan Liu (CHE), led by Karen Bloor (Department of Health Sciences, York)  
Funder: NIHR HS & DR

## Index of deprivation

Karen Bloor, Veronica Dale (Department of Health Sciences, York) Nils Gutacker (CHE)  
Funder: Oxford Consultants for Social Inclusion

## Locally Priced Services – establishing an efficiency frontier

Martin Chalkley, Rowena Jacobs, Adriana Castelli, María José Aragón, Panos Kasteridis, Idaira Rodríguez Santana  
Funder: NHS England

## Measuring NHS productivity: 2016/17 update

Adriana Castelli, Martin Chalkley, James Gaughan, María Lucia Pace, Idaira Rodríguez Santana  
Funder: NIHR PRP ESHCRU (variation to contract)

## Measuring NHS productivity: 2017/18 update

Adriana Castelli, Martin Chalkley, James Gaughan, Idaira Rodríguez Santana  
Funder: NIHR

## Modelling demand for health care expenditures

Anne Mason, Nigel Rice, Martin Chalkley, María Aragón, Idaira Rodríguez (CHE), Raphael Wittenberg, Jose-Luis Fernandez (LSE)  
Funder: NIHR PRP ESHCRU

## Organisation, size, and outcomes in general practice: GP hubs, federations and chains

Hugh Gravelle, Rita Santos, Dan Liu  
Funder: NIHR PRP ESHCRU

## Providers' response on the pay for performance incentives

Katja Grašič  
Funder: NIHR CCF (Doctoral Research Fellowship)





# The effects of government contracting with faith based providers in Malawi on maternal care utilisation

WIKTORIA TAFESSE, MARTIN CHALKLEY (CHE),  
GERALD MANTHALU (Ministry of Health, Government of Malawi)

Up to 70% of health care in some countries in Sub-Saharan Africa is delivered by faith based organisations. Faith based health facilities are often situated in rural and deprived areas and traditionally have charged user fees. In order to increase equitable access to health care, most faith based providers across Africa are becoming integrated in national public health systems using different types of contracts. Research on the effects of these arrangements on health care utilisation and population health is limited.

Ongoing research as part of the *Thanzi la Onse programme*, analyses the impact of the Government of Malawi contracting-out health care to nonprofit providers from the Christian Health Association of Malawi (CHAM), in the form of service-level agreements (SLAs). The study finds that SLAs reduced the proportion of women giving birth at home by increasing the uptake of institutional deliveries at CHAM hospitals. The results also point to an increase in births being assisted by skilled health workers.

The government of Malawi has entered into service-level agreements (SLAs) with individual CHAM facilities since 2006. SLAs mostly cover maternal and neonatal health care services. Under this agreement, a CHAM facility is liable to provide agreed services for free and

will be reimbursed retrospectively by the district health office on a pre-defined fixed cost of inputs. Therefore, SLAs comprise both of a payment reform and a removal of user-fees.

The authors estimate the impact of SLAs on health care utilisation, by exploiting spatial and temporal variation in the staggered implementation of SLAs across facilities. Information on women's births in 2005-2010 and related health service utilisation during pregnancy, from the 2010 Malawi Demographic and Health Survey, is used for the analysis. The location of the sampled villages from the survey is spatially linked to all health facilities in Malawi including information on the time of SLAs implementation per facility. This quasi-experimental method allows for the estimation of differential effects on pregnancy related health care

utilisation for births with and without exposure to SLAs over time.

While the findings point to a large effect of SLAs increasing skilled institutional birth delivery, positive effects are not found on the demand for prenatal care. Preliminary findings suggest a reduction in some specific services during prenatal care. The lack of positive effects on prenatal care services may explain why there is no significant impact on child survival or birth weight.

As contractual arrangements with non-governmental providers involving both supply- and demand-side reforms are increasing across low income countries, this study is an important first insight into the possible effects of such policies.

# Research projects in progress and completed in 2018

## Regulatory incentives across the system: Managing deficits

Martin Chalkley, Hugh Gravelle, Adrian Villaseñor (CHE), Luigi Siciliani (DERS, York)

Funder: NIHR PRP ESHCRU

## The causal impact of health on Labour Market Outcomes: consequences for individuals and households

Nigel Rice in collaboration with University of Sheffield (lead) and Vrije Universiteit Amsterdam

Funder: Health Foundation

## 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

## ■ Mental health

### CODI – Costs and Outcomes of Digital Interventions to improve mental health

Laura Bojke, Pedro Saramago Goncalves

Funder: NIHR NETSCC

### 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, Anne Mason, Nigel Rice, Jemimah Ride (CHE), Tim Doran, Najma Siddiqi, Simon Gilbody (Department of Health Sciences, York), Tony Kendrick (University of Southampton), Ceri Owen, Lauren Aylott (Service Users) Christoph Kronenberg (University of Duisburg-Essen)

Funder: NIHR HS&DR

### Efficiency, cost and quality of mental healthcare provision

Rowena Jacobs, Adriana Castelli, Maria Goddard, Hugh Gravelle, Nils Gutacker, María José Aragón, Anne Mason (CHE) with colleagues from University of Sheffield and University of Birmingham

Funder: Health Foundation

### The HOME study: A randomised controlled trial comparing the addition of Proactive Psychological Medicine to usual care on the time spent in hospital by older acute hospital inpatients

Simon Walker, Fan Yang, Mark Sculpher (CHE) with colleagues from University of Oxford and London School of Hygiene and Tropical Medicine

Funder: NIHR HS&DR

### EMERALD Improving diabetes outcomes for people with severe mental illness: a longitudinal observational and qualitative study of patients in England

Rowena Jacobs (CHE), with colleagues across University of York

Funder: NIHR HS&DR

### Mental Health outcomes in London: Clinical engagement with HoNOS

Rowena Jacobs, Jemimah Ride

Funder: NHS London Clinical Networks

### NHS Vale of York CCG: Evaluating psychiatric liaison service

Laura Bojke, Gerry Richardson, Sebastian Hinde

Funder: York Hospital Trust

### The impact of extending working hours as employees adapt and respond to change: a mixed methods evaluation of employee and organisational outcomes

Rowena Jacobs, Martin Chalkley, Misael Anaya Montes, Idaira Rodríguez (CHE), with colleagues across University of York

Funder: University of York Centre For Future Health

### Contracting for secure mental health services

Martin Chalkley, María José Aragón, Rowena Jacobs

Funder: DH PRP EEPURU

### Closing the GAP Mental Health Network:

Rowena Jacobs, María José Aragón, with colleagues across University of York

Funder: UK Research & Innovation

### IMPACT: Improving Outcomes in Mental and Physical Multimorbidity in South Asia

Rowena Jacobs with colleagues from across University of York and partner institutions

Funder: NIHR – Global Health Research

## ■ Equity in health and health care

### Case studies of local NHS equity indicator trends: have some NHS areas tackled health inequality more effectively than others, and if so how?

Richard Cookson

Funder: ESRC

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

Richard Cookson

Funder: NIHR, Senior Research Fellowship

### Tracing causes of inequalities in health and well-being: analysis of rich longitudinal data

Nils Gutacker

Funder: Research Council of Norway via University of Tromsø

## ■ Global health

### A one stop shop for cost-effectiveness evidence? Recommendations for improving disease control priorities

Matthias Arnold, Susan Griffin, Jessica Ochalek, Paul Revill, Simon Walker

Funder: MRC GCRF RCUK Thanzi la Onse project 2018

### Children with HIV in Africa – pharmacokinetics and acceptability of simple antiretroviral regimens (CHAPAS 4)

Paul Revill, Jessica Ochalek, Beth Woods, Alex Rollinger

Funder: EDCTP

### Contracting for health service provision at Christian health facilities

Martin Chalkley, Wiktoria Tafesse (CHE), Gerald Manthala (Ministry of Health, Malawi)

Funder: MRC GCRF RCUK Thanzi la Onse project 2018

### Cross-sectoral analysis of the social cash transfer programme

Karel Haal, Finn McGuire, Wiktoria Tafesse, Paul Revill, Susan Griffin

Funder: MRC GCRF RCUK Thanzi la Onse project 2018



# Doctor who? The influence of doctors' socio-demographic characteristics on medical specialty allocation

IDAIRA RODRÍGUEZ SANTANA, MARTIN CHALKLEY (PhD Supervisor)

Concerns regarding the healthcare workforce extend beyond the problem of general shortages, to issues such as the over-subscription of some specialties, constant recruitment problems in others, or the under-supply of doctors in rural areas. These are manifestations of imbalance in the workforce, between what training doctors want and what the health system needs. Such imbalances are closely related to the recent major changes in the composition of the medical workforce: the feminisation of the profession; the increased representation of Black and Minority Ethnic (BME) doctors and those coming from deprived socioeconomic backgrounds; and the increased reliance on foreign-graduated doctors.

This research seeks to understand and disentangle the origins of the large imbalances observed for UK doctors, recognising that the allocation of individuals to specialties is a sequential process. Doctors make decisions regarding which specialties to apply for and their applications are then assessed to determine their suitability. At each stage of this process, there is selection, either by the doctors themselves or by the selectors reviewing their applications, that might result in specialties becoming unbalanced in terms of social, economic, gender and ethnic characteristics. Thus, our principal objective is to understand how demographic and socioeconomic characteristics impact the different stages of that process. We develop a framework that describes the functioning of the specialty allocation process in the UK and serves as a base

for the empirical analysis. The data used to evaluate the framework come from the UK Medical Education Database, which collates data on the performance and career progression of doctors who started medical studies in the UK in 2007 and 2008.

After accounting for previous academic attainment, medical school effects and other relevant elements, there are clear and significant effects, of doctors' demographic and socioeconomic backgrounds on where they apply, the number of applications they submit and selectors' judgements. In particular, the results show strong evidence with respect to choices by women, BME and doctors from better-off socioeconomic backgrounds with regard to their application patterns. The analysis sheds light on doctors' perception of success and shows that BME and older doctors

are more likely to submit multiple applications. At the selection stage, the results suggest the existence of unexplained interview score differences in favour of white and female doctors, relative to BME and male doctors. Results also confirm that making more than one application has a negative effect on interview scores.

These findings can assist policy makers and regulators to design and target better workforce planning and recruitment strategies, and hence make better use of resources to improve access to care and the efficiency of health service delivery.

Link: *Essays on the influence of doctors' socio-demographic characteristics on medical specialty allocation. PhD thesis.*

# Research projects in progress and completed in 2018

## Developing a district resource allocation formula for Malawi

Finn McGuire, Paul Revill, Peter C Smith (CHE), Sakshi Mohan, Pakwanja Twea (Ministry of Health, Malawi)  
Funder: MRC GCRF RCUK Thanzi la Onse project 2018

## Developing a roadmap for health system financing policy in India

Sumit Mazumdar, Rodrigo Moreno-Serra, Peter C Smith, Marc Suhrcke  
Funder: GCRF QR Funding Schemes

## Development of a new paradigm in differentiated care for HIV Patients

Paul Revill, Simon Walker  
Funder: MRC

## Distributional impact of the Malawian essential health package

Susan Griffin, Matthias Arnold (CHE), Dominic Nkhoma (College of Medicine, Malawi)  
Funder: MRC GCRF RCUK Thanzi la Onse project 2018

## Economic analysis for health benefits package design

James Love-Koh, Matthias Arnold, Jessica Ochalek, Paul Revill, Susan Griffin, Simon Walker, Mark Sculpher, (CHE), Eddie Kataika, Sibusiso Sibandze (East Central and Southern Africa Health Community)  
Funder: MRC GCRF RCUK Thanzi la Onse project 2018

## Estimating cost-effectiveness thresholds: a case study on Indonesia

Marc Suhrcke, Karl Claxton, Paul Revill, Andrew Mirelman, Noemi Kreif, Rodrigo Moreno-Serra, Alex Rollinger  
Funder: Gates Foundation via NICE International

## Evaluation of South Africa's excise tax on sugar-sweetened beverages

Marc Suhrcke, Andrew Mirelman  
Funder: International Development Research Centre (IDRC), Canada

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

Marc Suhrcke, Andrew Mirelman  
Funder: MRC Newton Fund

## Extension to the economic analysis of the REALITY trial of prophylactic strategies in advanced HIV patients in Africa

Simon Walker, Edward Cox, Paul Revill, Marta Soares  
Funder: MRC

## HIV Modelling Consortium: 4 year programme grant

Mark Sculpher, Paul Revill, Claire Rothery, Karl Claxton, Beth Woods  
Funder: Bill and Melinda Gates Foundation

## Incorporating concerns for equity into health resource allocation: A guide for practitioners

James Love-Koh, Susan Griffin, Paul Revill, Simon Walker (CHE), Edward Kataika, Sibusiso Sibandze (East Central and Southern Africa Health Community)  
Funder: MRC GCRF RCUK Thanzi la Onse project 2018

## Implementation of COPD case finding and self-management action plans in low and middle income countries

Andrew Mirelman  
Funder: MRC

## Informing the rapidly evolving policy landscape in health care decision making in India: state specific health opportunity costs

Jessica Ochalek  
Funder: ESRC IAA

## LeishPathNet: Towards a research network for the molecular pathological stratification of Leishmaniasis

Paul Revill, Mark Sculpher, Rita Santos  
Funder: MRC, GCRF Foundation Award

## Levels and determinants of health system efficiency in Latin America and the Caribbean

Rodrigo Moreno-Serra, Peter C Smith, Misael Anaya Montes  
Funder: Inter-American Development Bank

## Macroeconomic and welfare consequences of road traffic injuries in low and middle income countries

Marc Suhrcke, Andrew Mirelman  
Funder: The World Bank

## MRC Global Health: (TRACT)

### Transfusion and Treatment of severe Anaemia in African Children: a randomised controlled Trial

Pedro Saramago Goncalves, Aimée Fox, Martin Harker, Paul Revill, Simon Walker  
Funder: MRC

## NIHR global health research group on Global Health Econometrics and Economics (GHE2)

Marc Suhrcke, Rodrigo Moreno-Serra, Noemi Kreif, Sumit Mazumdar, Andrew Mirelman, Mark Sculpher, Paul Revill, Stephen Palmer, Martin Chalkley, Nigel Rice, Richard Cookson (CHE). With PRICELESS SA, Wits University School of Public Health (South Africa). Foundation Economic Research Institute (FIPE), University of São Paulo (Brazil). Center for Health Economics and Policy Studies (CHEPS), Universitas Indonesia (Indonesia)  
Funder: NIHR – Global Health Research

## Setting research priorities in global health: appraising the value of evidence generation activities to support decision-making in health care

Beth Woods, Claire Rothery, Paul Revill, Karl Claxton (CHE), Timothy Hallett (Imperial College London), Andrew Phillips (UCL)  
Funder: Bill and Melinda Gates Foundation

## Thanzi la Onse (Health of All): Frameworks and analysis to ensure value for money health care – developing theory, changing practice

Mark Sculpher, Paul Revill, Martin Chalkley, Alex Rollinger, Laure Bedecarrax, Beth Woods, Simon Walker, Peter C Smith, Susan Griffin, Wiktoria Tafesse, Matthias Arnold, Marc Suhrcke, Martin Harker, Ajay Rangaraj (CHE). With Department of Politics, University of York. Department of Health Sciences, University of York. Overseas Development Institute (ODI). Center for Global Development (CGD). Imperial College London. University College London. College of Medicine, University of Malawi. MRC/UVRI & LSHTM Uganda Research Unit on AIDS  
Funder: MRC GCRF, RCUK



# Who cares about 'value for money' in global health?

NOEMI KREIF, ANDREW MIRELMAN, JAMES LOVE-KOH, PAUL REVILL, MARK SCULPHER, RODRIGO MORENO-SERRA, MARC SUHRCKE (CHE), SANGJUN KIM (CHE MSc STUDENT)

The demand for more and better evidence on 'what works' in development policy has soared in recent years, in health and beyond. This demand has been met by a considerable growth in 'impact evaluations', or studies that seek to causally attribute changes in an outcome to a given intervention. Not only has the quantity of such studies increased, but the quality has also improved, as impact evaluations have adopted increasingly rigorous (experimental and quasi-experimental) methodologies<sup>1</sup>.

However, effectiveness evidence alone is not enough to determine whether an investment in a particular programme is worth the cost. Facing tight resource constraints, decision-makers ought to weigh costs and benefits of alternative causes of action, and health economic evaluation methods provide a suitable framework to inform resource allocation decisions.

In a recent manuscript, CHE authors explore to what degree economic evaluations have been conducted alongside published health impact evaluations. We undertook a systematic search of repositories of published studies, including the specialised repository of impact evaluations by the International Initiative for Impact

Evaluations. Out of more than 10,000 published impact evaluations, only 70 studies were found that combined impact and economic evaluations, confirming that appropriate economic tools are indeed under-utilised in impact evaluations. We then assessed the quality of the economic evaluation in those studies, using quality assessment criteria derived from the International Decision Support Initiative Reference Case for Economic Evaluation, previously co-designed by CHE authors<sup>2</sup>.

The resulting picture was one of highly variable quality across the studies. Only a small minority of studies met the basic requirements for economic evaluation – eg stating the perspective of the analysis, using generic health measures

that can be compared across diseases, or suitably reflecting uncertainty. Future work should direct greater effort towards bringing the fields of impact evaluation and economic evaluation more closely together, in order to inform better resource allocation decisions in global health.

## References

1. McEwan PJ. *Cost-effectiveness analysis of education and health interventions in developing countries*. *Journal of Development Effectiveness* 2012; 4(2):189-213.
2. Wilkinson T, Sculpher MJ, Claxton K, Revill P, Briggs A, Cairns JA, Teerawattananon Y, Asfaw E, Loper R, Culyer AJ, Walker DG. *The international decision support initiative reference case for economic evaluation: an aid to thought*. *Value in Health* 2016; 31:19(8):92.

# Research projects in progress and completed in 2018

## War and Peace: the health and health system consequences of conflict in Colombia

Rodrigo Moreno-Serra, Noemi Kreif, Andrew Mirelman, Marc Suhrcke (CHE). With Department of Politics, University of York. Universidad de los Andes, Colombia. London School of Hygiene and Tropical Medicine.  
Funder: MRC/ESRC/DFID/Wellcome

## ■ Health and social care

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

Panos Kasteridis, Anne Mason (CHE), Andrew Street (LSE), Led by NHS South, Central and West Commissioning Support Unit  
Funder: Yeovil District Hospital NHS Foundation Trust

### Evaluation of the integrated personal commissioning programme

Helen Weatherly, Rita Faria, Francesco Longo  
Funder: DoH PRP

### Harrogate Vanguard 2

Gerry Richardson, Laura Bojke, Sebastian Hinde  
Funder: Harrogate and District NHS Foundation

### Intensive behavioural interventions for young children with autism

Claire Rothery  
Funder: NIHR HTA

### PACT – Partners at Care Transition: Improving patient experience and safety

Gerry Richardson  
Funder: NIHR Prog Grant

### Public Health England framework 2018: Social Care

Helen Weatherly  
Funder: Public Health England

### Understanding the interdependencies between health and social care resources and arrangements

Anne Mason, Dan Liu, Maria Pace, Maria Goddard, Rowena Jacobs (CHE), Raphael Wittenberg (LSE)  
Funder: NIHR PRP ESHCRU

## Vision rehabilitation services: investigating the impacts of two service models

Helen Weatherly, Pedro Saramago Goncalves  
Funder: NIHR SSCR

### York CCG collaboration

Rehabilitation: Ana Duarte, Laura Bojke, Gerry Richardson  
Care hubs: Ana Duarte, Laura Bojke, Gerry Richardson (CHE), Chris Bojke (University of Leeds)  
Health checks: Sebastian Hinde, Gerry Richardson, Laura Bojke  
Funder: NIHR

### Yorkshire lung cancer screening

Mark Sculpher  
Funder: YCR

## ■ Public health

### BREEZE – A feasibility randomised controlled trial of a complex breathlessness intervention in Idiopathic Pulmonary Fibrosis

Gerry Richardson  
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, Gerry Richardson, Susan Griffin (CHE), Karen Bloor (Department of Health Sciences, York)  
Funder: NIHR CCF

### Comparing smoking cessation to screening and brief intervention for alcohol in distributional cost effectiveness analysis to explore the sensitivity of results to socioeconomic inequalities characterised in model inputs

Susan Griffin, Ana Duarte, Simon Walker, Fan Yang  
Funder: DHSC PRP: PHRC

## 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, Simon Walker (CHE), Kathleen Kiernan (SPSW, York)  
Funder: NIHR PHR

## Evaluation of Coenzyme Q10 in chronic heart failure

Claire Rothery  
Funder: NIHR HTA

## Northern Health Science Alliance (NHSa) health inequalities in the north report

Nigel Rice  
Funder: NHSa

## Tees Esk and Wear Valleys identifying and linking individual patient data to access alternative services

Gerry Richardson, Laura Bojke, Sebastian Hinde  
Funder: NIHR RCF



# How efficient are the health systems of Latin America and the Caribbean – and why?

RODRIGO MORENO-SERRA, MISAEL ANAYA MONTES, PETER C. SMITH

Most Latin America and Caribbean (LAC) countries have achieved great improvements in population health since the early 2000s. Yet LAC countries devoting similar amounts of resources to health vary significantly in terms of the population health indicators achieved. The mixed health results achieved in the region have taken place under increasing pressure on health budgets. Identifying the countries that do better than others in translating health resources into better outcomes, and the reasons for these differences in performance, are essential steps for the development of policies that ensure sustained progress towards universal health coverage.

Research undertaken seeks to identify the levels of spending efficiency and their possible determinants across LAC health systems<sup>1</sup>. We measure efficiency through achievements in various health system outputs, including health outcomes (eg life expectancy, under-five mortality) and care access indicators (eg skilled birth attendance rate and its ratio between poorest and richest people). We use annual data for the period 2006-2015 for 71 countries, including 27 LAC countries, complemented by the OECD economies and selected middle-income countries from other regions, so as to benchmark the performance of LAC countries.

The analyses reveal that LAC countries could make large gains in health outcomes and access to services for their current health budget. For example, at current spending levels, LAC countries could improve life expectancy

at birth by 4 years on average if they followed best practices. LAC health systems perform especially poorly regarding the provision of equitable access to services for their levels of health spending. Chile, Costa Rica, Cuba, Jamaica and Uruguay are consistent efficiency frontrunners, while consistent underperformers include Bolivia, Guatemala, Panama, Peru and Suriname.

One policy implication of the analyses is that LAC countries should seek ways to improve the care access indicators and health outcomes achieved for their current levels of resources, rather than seek to reduce their health spending levels – which are already low compared to typical per capita expenditures among OECD countries. The research finds that efforts to increase health system efficiency in LAC could focus on general governance aspects but also improvements in the quality of health

institutions. Countries with 'better' health system institutions – in the sense of having a medium-term sectoral vision aligned with the overall government strategy, and results-based management of health service provision – achieve wider access to health services, for a given level of health spending.

This study has provided key technical input for the 2018 edition of the flagship Inter-American Development Bank publication 'Development in the Americas'<sup>2</sup>.

## References

- Moreno-Serra R, Anaya Montes, M, Smith, Peter C. *Levels and determinants of health system efficiency in Latin America and the Caribbean*. Technical Note IDB-TN-1582. Washington, DC: Inter-American Development Bank, 2018.
- Izquierdo A, Pessino C, Vuletin G. *Better spending for better lives: How Latin America and the Caribbean can do more with less*. Washington, DC: Inter-American Development Bank, 2018.



# Courses and workshops



In 2018 we welcomed 281 delegates to York for our short courses from 38 countries worldwide, spanning six continents and organisations such as pharmaceutical and medical technology companies, universities, hospitals, government bodies and charities.

Details of our current short courses can be found on our website: [york.ac.uk/che/courses/](http://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 53 delegates.

📺 <https://vimeo.com/147309364>

### Advanced Methods for Cost-Effectiveness Analysis: Meeting Decision Makers' Requirements

This five-day workshop, also held in June, dealt with advanced methods in economic evaluation in health care, and was attended by 55 delegates.

📺 <https://vimeo.com/147310423>

### Outcomes Measurement and Valuation for Health Technology Assessment

This three-day workshop included new material linked directly to the needs of organisations, such as NICE, which make decisions about health care delivery and funding. 26 delegates attended this workshop held in July.

📺 <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. 106 delegates in total attended both courses, designed to inform and promote understanding in key areas of quality of life assessment and health economic evaluation.

📺 <https://vimeo.com/196699566>

## Statistical Methods in Economic Evaluation for Health Technology Assessment

74 delegates in total attended the two-day Foundations course and the three-day Regression Methods course, intended for people currently undertaking, reviewing or commissioning analyses of health economics and outcomes research (HEOR) data within the pharmaceutical and medical device industries, consultancy, academia or the health services.

📺 <https://vimeo.com/196700119>

## Analysing Patient-Level Data Using Hospital Episode Statistics (HES)

This three-day course included instruction on how to understand, manage, manipulate, evaluate, aggregate and cost 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 in December and 32 delegates attended.

## 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 website.





# Including the health inequality impact of policies in funding decisions

SUSAN GRIFFIN, RICHARD COOKSON, JAMES LOVE-KOH, KARL CLAXTON, ANDREW MIRELMAN, MIQDAD ASARIA (CHE), MATTHEW ROBSON, SHEHZAD ALI (Health Sciences, University of York)

Decisions about which health interventions to fund are often informed by cost-effectiveness analysis. This entails evaluating by how much people's health would be improved with a policy, and testing whether the resources to provide it would have generated better improvements in health if devoted to other activities. The analyses produced to inform funding decisions typically evaluate how policies improve health on average. As they are not provided with information about who in the population gains from alternative policies, or from other ways the resources could be used, decision makers cannot base their choice on how policies change health inequality.

A framework for distributional cost-effectiveness analysis was developed to provide decision makers with information about the gainers and losers from alternative policy options<sup>1</sup>. Where concern is expressed for reducing inequality in health outcomes between population groups, for example by socioeconomic status, distributional cost-effectiveness analysis can be applied to estimate how policies would change health outcomes for each group. From this, an estimate of how policies change health inequality can be summarised, alongside how they change health overall. The distributional cost-effectiveness framework quantifies any trade-offs between increasing population health

and reducing health inequality. It requires the value judgements made in the analysis to be clearly specified, which facilitates testing of whether alternative reasonable value judgements might alter the choice of policy.

Fundamental inputs required to undertake this type of analysis have been developed at York. In his PhD, James Love-Koh assessed differences in healthy life expectancy between individuals according to their sex, age, and neighbourhood level of deprivation<sup>2</sup>. For those same groups he determined the differences in the amount their health would improve from a change in NHS expenditure<sup>3</sup>. Matthew Robson and colleagues asked members of the public by how much they would prioritise health gains to the poor over the same gains to the rich<sup>4</sup>. Susan Griffin and James Love-Koh worked with the National Institute for Health and Care Excellence on how impacts on health inequality could inform their recommendations. Using a simplified form of distributional cost-effectiveness analysis, they showed the potential for public health recommendations to reduce the 13.78 year gap in healthy life expectancy between the healthiest and least healthy groups in England and Wales by 0.44 years<sup>5</sup>.

Further work is showing how inclusion of health inequality concerns might alter policy choices in other settings, such as the determination of which interventions to include in Malawi's health benefits package, or outside of the health sector in terms of the preferred way to implement a low emission zone. This area of research<sup>6</sup> is one that CHE continues to develop in collaboration with a range of stakeholders and partners.

## References

1. Asaria M, Griffin S, Cookson R. *Distributional cost-effectiveness analysis: A tutorial*. *Medical Decision Making* 2015;36(1):8-19.
2. Love-Koh J, Asaria M, Cookson R, Griffin S. *The social distribution of health: estimating quality adjusted life expectancy in England*. *Value in Health* 2015;18(5):655-62.
3. Love-Koh J, Cookson R, Claxton K, Griffin S. Estimating social variation in the health effects of changes in healthcare expenditure. *Medical Decision Making*. in submission.
4. Robson M, Asaria M, Cookson R, Tsuchiya A, Ali S. *Eliciting the level of health inequality aversion in England*. *Health Economics* 2017;26(10):1328-34.
5. Griffin S, Love-Koh J, Pennington B, Owen L. *Evaluation of Intervention Impact on Health Inequality for Resource Allocation*. *Medical Decision Making* 2019;OnlineFirst: 0272989X19829726.
6. Cookson R, Mirelman AJ, Griffin S, Asaria M, Dawkins B, Norheim OF, et al. *Using cost-effectiveness analysis to address health equity concerns*. *Value in Health* 2017;20(2):206-12.



Map showing distribution of marginal QALY produced by additional NHS spend

# Publications 2018

## Peer Reviewed

Abongomera G, Chiwaula L, **Revill P**, Mabugu T, et al. Patient-level benefits associated with decentralization of antiretroviral therapy services to primary health facilities in Malawi and Uganda. *International Health* 2018;10(1):8-19.

Ahmed S, Hasan MZ, Ahmed MW, Dorin F, Sultana M, Islam Z, **Mirelman A**, et al. Evaluating the implementation related challenges of *Shasthyo Suroksha Karmasuchi* (health protection scheme) of the government of Bangladesh: a study protocol. *BMC Health Services Research* 2018;18:552.

Ahmed S, Razzaque Sarker A, Sultana M, Chakrovorty S, Ahmed MW, Dorin F, **Mirelman A**, et al. The impact of community-based health insurance on the utilization of medically trained healthcare providers among informal workers in Bangladesh. *PloS One* 2018;13(7):e0200265.

Ahmed S, Razzaque Sarker A, Sultana M, Chakrovorty S, Zahid Hasan M, **Mirelman A**, et al. Adverse selection in community based health insurance among informal workers in Bangladesh: An EQ-5D assessment. *International Journal of Environmental Research and Public Health* 2018;15(2):242.

**Aragón MJ, Chalkley MJ**. How do time trends in in-hospital mortality compare? A retrospective study of England and Scotland over 17 years using administrative data. *BMJ Open* 2018;8(2):e017195.

Arundel C, Fairhurst C, Corbacho-Martin B, Buckley H, Clarke E, Cullum N, Dixon S, Dumville J, Firth A, Henderson E, Lamb K, McGinnis E, Oswald A, **Saramago Goncalves P, Soares M**, et al. Pilot feasibility randomized clinical trial of negative-pressure wound therapy versus usual care in patients with surgical wounds healing by secondary intention. *BJs Open* 2018;2(3):99-111.

Atella V, Belotti F, Bojke C, **Castelli A, Grašič K**, Kopinska J, Piano Mortari A, Street A. How health policy shapes healthcare sector productivity? Evidence from Italy and UK. *Health Policy* 2018;doi:10.1016/j.healthpol.2018.10.016.

Barbieri M, **Richardson G**, Paisley S. The cost-effectiveness of follow-up strategies after cancer treatment: a systematic literature review. *British Medical Bulletin* 2018;126(1):85-100.

Bee P, Pedley R, Rithalia A, **Richardson G**, Pryjmachuk S, Kirk S, Bower P. Self-care support for children and adolescents with long-term conditions: the REFOCUS evidence synthesis. *NIHR HS&DR Journal* 2018;6(3).

Bell K, Corbacho-Martín B, Ronaldson S, **Richardson G**, Torgerson D, Robling M, et al. The impact of pre and perinatal lifestyle factors on child long term health and social outcomes: a systematic review. *Health Economics Review* 2018;8:2.

Bloor K, **Goddard M**. Public spending must improve health, not just healthcare. *BMJ* 2018;363:k4673.

**Bojke L, Schmitt L, Lomas J, Richardson G, Weatherly H**. Economic evaluation of environmental interventions: reflections on methodological challenges and developments. *International Journal of Environmental Research and Public Health* 2018;15(11):2459.

Boujaoude M-A, **Mirelman A**, Dalziel K, Carvalho N. Accounting for equity considerations in cost-effectiveness analysis: A systematic review of rotavirus vaccine in low- and middle-income countries. *Cost Effectiveness and Resource Allocation* 2018;16:18.

Brown LC, Ahmed HU, **Faria R**, El-Shater Bosaily A, **Soares M, Sculpher M**, et al. Multiparametric MRI to improve detection of prostate cancer compared with transrectal ultrasound-guided prostate biopsy alone: the PROMIS study. *Health Technology Assessment* 2018;22(39).

Bywater T, Berry V, Blower SL, Cohen J, Gridley N, Kiernan K, Mandefield L, Mason-Jones A, McGilloway S, McKendrick K, Pickett K, **Richardson G**, Teare MD, Tracey L, **Walker S**, Whittaker K, Wright J. Enhancing Social-Emotional Health and Wellbeing in the Early Years (E-SEE): A study protocol of a community-based randomised controlled trial with process and economic evaluations of the incredible years infant and toddler parenting programmes, delivered in a proportionate universal model. *BMJ Open* 2018;8(12):e026906.

**Chalkley MJ**, Listl S. First do no harm – The impact of financial incentives on dental x-rays. *Journal of Health Economics* 2018;58:1-9.

Chansa C, Mwase T, Matsebula T, Kandoole P, **Revill P**, Makumba J-B, et al. Fresh money for health? The (false?) promise of “innovative financing” for health in Malawi. *Health Systems & Reform* 2018;doi:10.1080/23288604.2018.1506643.

Chetter I, Oswald A, McGinnis E, Stubbs N, Arundel C, Buckley H, Bell K, Dumville J, Cullum N, **Soares M, Saramago Goncalves P**. Patients with surgical wounds healing by secondary intention: A prospective, cohort study. *International Journal of Nursing Studies* 2018;doi:10.1016/j.ijnurstu.2018.09.011.

Ciani O, Epstein D, **Rothery C**, Taylor RS, **Sculpher M**. Decision uncertainty and value of further research: a case-study in fenestrated endovascular aneurysm repair for complex abdominal aortic aneurysms. *Cost Effectiveness and Resource Allocation* 2018;16:15.

Ciaranello A, Sohn AH, Collins IJ, **Rothery C**, Abrams EJ, **Woods B**, et al. Simulation modeling and metamodeling to inform national and international HIV policies for children and adolescents. *J AIDS-Journal of Acquired Immune Deficiency Syndromes* 2018;78(S1):S49-S57.





# Funding for mental health services in England: The challenge of an appropriate classification system

ROWENA JACOBS, MARÍA JOSÉ ARAGON, MARTIN CHALKLEY, ANNE MASON, NILS GUTACKER (CHE), GIUSEPPE MOSCELLI (University of Surrey), JAN R. BÖHNKE (University of Dundee), MICHAEL CLARK (PSSRU, LSE), VALERIE MORAN (LSHTM)

**Mental health services in England face particular challenges. Services suffer from chronic underfunding, and lack a payment system that links activity with reimbursement. Unlike acute physical health hospital services, where payment is based on the number of treatment episodes, mental health services are mostly funded through block contracts that do not relate payment to activity or outcomes.**

Mental health hospitals are being encouraged to move away from block contracts to payment systems based on episodes and/or outcomes, or to payments based on the populations they serve ('capitation payments'). All approaches require a transparent classification system. Mental health service providers categorise patients into 20 groups designed to capture similar levels of need, called clusters. Clusters are important for grouping patients with similar costs to calculate episodic payments; and for defining the units of activity necessary for allocating resources and defining capitation payments.

Clinicians make clustering decisions, supported, if they wish, by the Mental Health Clustering Tool. This algorithm provides an external reference for benchmarking clustering behaviour. We

investigated the degree of mismatch between actual and predicted clustering, to test for systematic differences in providers' clustering behaviour.

We found systematic variation across hospitals in their probability of mismatch, but this was not consistently associated with observed hospital characteristics (eg the hospital cost structures, staff engagement, or deprivation of the population they serve).

We also found that clusters are not performing well as a classification system by capturing similarities and differences between patients. The categories of the current classification system appear to be neither case-mix nor resource homogeneous. There was large variation in both activity and costs within clusters and between providers.

We believe that clusters can provide the basis for a better classification system that makes mental health services more transparent and accountable. Clusters should be a starting point for evolving a better funding system, and to abandon the clustering approach at this stage would undo important progress made in helping mental health services demonstrate their claim on NHS resources.

## Publications

Jacobs R, Chalkley M, Aragón MJ, Böhnke JR, Clark M, Moran V. *Funding approaches for mental health services: Is there still a role for clustering?* *BJPsych Advances* 2018;24(6):412-421.

Moscelli G, Jacobs R, Gutacker N, Aragón MJ, Chalkley M, Mason A, Böhnke JR. *Prospective payment systems and discretionary coding: Evidence from English mental health providers.* *Health Economics* 2019;28(3):387-402.

# Publications 2018

**Claxton K, Lomas J**, Martin S. The impact of NHS expenditure on health outcomes in England: Alternative approaches to identification in all-cause and disease specific models of mortality. *Health Economics* 2018;27(6):1017-1023.

Clemes S, Bingham D, Pearson N, Chen Y-L, Edwardson C, Mceachan R, Tolfrey K, Cale L, **Richardson G**, et al. Stand out in class: Restructuring the classroom environment to reduce sedentary behaviour in 9-10 year olds – study protocol for a pilot cluster randomised controlled trial. *Pilot and Feasibility Studies* 2018;4:103.

Coelho T, Ines M, Conceicao I, **Soares M**, Carvalho M, Costa J. Natural history and survival in stage 1 Val30Met transthyretin familial amyloid polyneuropathy. *Neurology* 2018;doi:10.1212/WNL.0000000000006543.

**Cookson R**, Ali S, Tsuchiya A, **Asaria M**. E-learning and health inequality aversion: A questionnaire experiment. *Health Economics* 2018;27(11):1754-1771.

**Cookson R, Asaria M**, Ali S, Shaw R, Doran T, Goldblatt P. Health equity monitoring for healthcare quality assurance. *Social Science & Medicine* 2018;198:148-156.

Danzon P, **Drummond MF**, Towse A, Pauly M. Objectives, budgets, thresholds, and opportunity costs – A health economics approach: An ISPOR special task force report [4]. *Value in Health* 2018;21(2):140-145.

Dawkins B, **Mirelman A, Asaria M**, Johansson KA, **Cookson R**. Distributional cost-effectiveness analysis in low- and middle-income countries: illustrative example of rotavirus vaccination in Ethiopia. *Health Policy and Planning* 2018;33(3):456-463.

Deidda M, Geue C, **Kreif N**, Dundas R, McIntosh E. A framework for conducting economic evaluations alongside natural experiments. *Social Science & Medicine* 2018;doi: 10.1016/j.socscimed.2018.11.032353-361.

Dodd P, Yuen CM, Becerra MC, **Revell P**, Jenkins HE, Seddon JA. The potential impact of household contact management on childhood tuberculosis: a mathematical modelling study. *Lancet Global Health* 2018;6(12):e1329-1338.

Edwardson C, Biddle S, Clarke-Cornwell A, Clemes S, Davies M, **Richardson G**, et al. A three arm cluster randomised controlled trial to test the effectiveness and cost-effectiveness of the SMART Work & Life intervention for reducing daily sitting time in office workers: study protocol. *BMC Public Health* 2018;18:1120.

Evans R, Brutsche M, Busca R, Deslee G, de Soyza A, Fellrath J-M, Franzen D, Hartman J, Mealing S, Morton T, Munavvar M, **Sculpher M**, et al. Quantifying patient centered outcomes associated with the use of bilateral endobronchial coil treatment in patients with severe emphysema. *Current Medical Research and Opinion* 2018;34(11):1927-1932.

**Faria R, Soares M**, Spackman E, Ahmed H, Brown L, Kaplan R, Emberton M, **Sculpher M**. Re: Jochen Walz. The "PROMIS" of magnetic resonance imaging cost effectiveness in prostate cancer diagnosis? *Eur Urol* 2018;73:31-2. *European Urology* 2018;73(6):e151-e152.

Forster A, Hartley S, Bernard L, Ozer S, **Schmitt L**, et al. An intervention to support stroke survivors and their carers in the longer term (LoTS2Care): study protocol for a cluster randomised controlled feasibility trial. *Trials* 2018;19:317.

Garrison L, Neumann P, Wille R, Basu A, Danzon P, Doshi J, **Drummond MF**, et al. A health economics approach to US value assessment frameworks – Summary and recommendations of the ISPOR special task force report [7]. *Value in Health* 2018;21(2):161-165.

**Goddard M**, Bloor K. Alan Maynard: A sceptical economist and his view of health care and health policy. *Political Quarterly* 2018;89(4):714-718.

**Gutacker N**, Bloor KE, Bojke C, Walshe K. Should interventions to reduce variation in care quality target doctors or hospitals? *Health Policy* 2018;122(6):660-666.

**Gutacker N**, Street AD. Calls for routine collection of patient-reported outcome measures (PROMs) are getting louder. *Journal of Health Services Research & Policy* 2018;doi:10.1177/1355819618812239.

Haji Ali Afzali H, **Bojke L**, Karnon J. Model structuring for economic evaluations of new health technologies. *Pharmacoeconomics* 2018;36(11):1309-1319.

**Hinde S**, Crilly T, Balata H, Bartlett R, Crilly J, Barber P, et al. The cost-effectiveness of The Manchester 'Lung Health Checks', a community-based lung cancer low-dose CT screening pilot. *Lung Cancer* 2018;126:119-124.

**Hinde S**, Theriou C, May S, Matthews L, Arbon A, Fallowfield L, Bloomfield D. The cost-effectiveness of EndoPredict to inform adjuvant chemotherapy decisions in early breast cancer. *Health Policy and Technology* 2018;doi:10.1016/j.hlpt.2018.12.001.

**Jacobs R, Chalkley MJ, Aragón MJ**, Böhnke JR, Clark M, Moran V. Funding approaches for mental health services: Is there still a role for clustering? *BJPsych Advances* 2018;24(6):412-421.

Jones A, Laporte A, Zucchelli E, **Rice N**. Dynamic panel data estimation of an integrated Grossman and Becker-Murphy model of health and addiction. *Empirical Economics* 2018;doi.org/10.1007/s00181-017-1367-6.

Kundu D, Sharma N, Chadha S, Laokri S, Awungafac G, Jiang L, **Asaria M**. Analysis of multi drug resistant tuberculosis (MDR-TB) financial protection policy: MDR-TB health insurance schemes, in Chhattisgarh state, India. *Health Economics Review* 2018;8:3.



# Fiscal policies for health: Impact evaluations echoing around the world

ANDREW MIRELMAN, MARC SUHRCKE

Fiscal policies for health, ie the use of taxation or subsidisation of certain foods or beverages with health implications, have recently become the subject of considerable policy and research attention. From an economic perspective, fiscal policies are justified as a way to correct a market failure associated with the external costs arising from unhealthy diets and obesity; or on the basis of 'internalities', in that a share of the health consequences from unhealthy consumption are not taken into account by an individual when making utility-maximising food choices. Fiscal policies may also be considered attractive for governments as an additional means for revenue generation.

In a special series in the Lancet, we and co-authors provided an overview of the equity issues related to fiscal policies for health<sup>6</sup>. This work shows that, while the wealthy tend to spend more on unhealthy items overall, the poor bear a larger burden relative to their means when prices increase. However, in many circumstances the poor can potentially gain more of the health benefit.

CHE staff have been involved in several empirical evaluations of fiscal policies. In a project with partners at the Universidad de Chile, Marc Suhrcke, Ryota Nakamura, Andrew Mirelman and co-authors evaluated a Sugar-Sweetened Beverage (SSB) tax that was implemented in Chile in 2014<sup>5</sup>. The results indicate that there were reductions in purchasing of SSBs in certain population sub-groups. A counter-intuitive result was found,

where the largest reductions appeared to be in the wealthiest sub-groups. Further work has also been completed in Barbados, where CHE's Marc Suhrcke has been involved with the evaluation of an SSB tax that was introduced in 2015. Here, the tax was found to both successfully raise the prices of SSBs and to reduce purchasing among consumers<sup>1,2</sup>.

Overall, the amount of evaluations of actual SSB tax-policies remains small, and what little does exist so far is being watched carefully in other countries interested in adopting such policies<sup>3,4</sup>. With their predominantly encouraging findings, they are entering the policy toolkit in a growing number of high-income countries as well as low- and middle-income countries.

## References

1. Alvarado M, Kostova D, Suhrcke M, Hambleton I, Hassell T, Samuels TA, Adams J, Unwin N. **Trends in beverage prices following the introduction of a tax on sugar-sweetened beverages in Barbados.** *Preventive Medicine* 2017;105:S23-25.
2. Alvarado M, Unwin N, Sharp SJ, Hambleton I, Murphy MM, Samuels TA, Suhrcke M, Adams J. **Assessing the impact of the Barbados sugar-sweetened beverage tax on beverage sales: An observational study.** *International Journal of Behavioral Nutrition and Physical Activity* 2019;16(1):13.
3. Dohmen J. Hoe de Overheid Ons van de Suiker Af Wil Krijgen. *Het Financieel Dagblad*. September 17, 2018.
4. Jacobs J. Chile's sugary food fight echoes around the world. *Financial Times* March 11 2019.
5. Nakamura R, Mirelman AJ, Cuadrado C, Silva-Illanes N, Dunstan J, Suhrcke M. **Evaluating the 2014 sugar-sweetened beverage tax in Chile: An observational study in urban areas.** *PLOS Medicine* 2018;15(7):e1002596.
6. Sassi F, Belloni A, Mirelman AJ, Suhrcke M, Thomas A, Salti N, Vellakkal S, Visaruthvong C, Popkin BM, Nugent R. **Equity impacts of price policies to promote healthy behaviours.** *The Lancet* 2018;391(10134):2059-2070.

# Publications 2018

Leurent B, Gomes M, **Faria R**, Morris S, Grieve R, Carpenter J. Sensitivity analysis for not-at-random missing data in trial-based cost-effectiveness analysis: A tutorial. *Pharmacoeconomics* 2018;36(8):889-901.

**Liu D**, **Mason A**, Marks L, Davis H, Hunter D, Jehu L, Smithson J, Visram S. Effects of local authority expenditure on childhood obesity. *European Journal of Public Health* 2018;doi:10.1093/eurpub/cky252.

**Lomas J**, Asaria M, **Bojke L**, Gale C, **Richardson G**, **Walker S**. Which costs matter? Costs included in economic evaluation and their impact on decision uncertainty for stable coronary artery disease. *Pharmacoeconomics - Open* 2018;2(4):403-413.

**Lomas J**, **Claxton K**, Martin S, **Soares M**. Resolving the 'cost-effective but unaffordable' paradox: estimating the health opportunity costs of non-marginal budget impacts. *Value in Health* 2018;21(3):266-275.

**Love-Koh J**, Peel A, Rejon-Parilla JC, Ennis K, Lovett R, **Manca A**, et al. The future of precision medicine: Potential impacts for Health Technology Assessment. *Pharmacoeconomics* 2018;36(12):1439-1451.

Majuru B, **Suhrcke M**, Hunter PR. Reliability of water supplies in low and middle-income countries: a structured review of definitions and assessment criteria. *Journal of Water, Sanitation and Hygiene for Development* 2018;2(2):142-164.

Marsh KD, **Sculpher M**, Caro J, Tervonen T. The use of MCDA in HTA: great potential, but more effort needed. *Value in Health* 2018;21(4):394-97.

**Mason A**, **Liu D**, **Kasteridis P**, **Goddard M**, **Jacobs R**, Wittenberg R, McGonigal G. Investigating the impact of primary care payments on underdiagnosis in dementia: A difference-in-differences analysis. *International Journal of Geriatric Psychiatry* 2018;33(8):1090-1097.

**Mason A**, **Liu D**, Marks L, Davis H, Hunter D, Jehu L, et al. Local authority commissioning of NHS Health Checks: A regression analysis of the first three years. *Health Policy* 2018;122(9):1035-1042.

Mauskopf J, Standaert B, Connolly MP, **Culyer AJ**, Garrison LP, Hutubessy R, Jit M, Pitman R, **Reveill P**, Severens J. Economic analysis of vaccination programs: An ISPOR good practices for outcomes research task force report. *Value in Health* 2018;21(10):1133-1149.

**Mirelman A**, Trujillo A, Niessen L, Ahmed S, Khan J, Peters D. Household coping strategies after an adult non-communicable disease death in Bangladesh. *International Journal of Health Planning and Management* 2018;doi:10.1002/hpm.2637.

Morton K, Voss S, Adamson J, Baxter H, Bloor KE, Brandling J, Cowlishaw S, Doran T, Gibson A, **Gutacker N**, **Liu D**, et al. General practitioners and emergency departments (GPED): Efficient models of care. A mixed-methods study protocol. *BMJ Open* 2018;8(10):e024012.

Moscelli G, **Gravelle H**, **Santos R**, Siciliani L. Heterogeneous effects of patient choice and hospital competition on mortality. *Social Science and Medicine* 2018;216:50-58.

Moscelli G, **Gravelle H**, Siciliani L, **Gutacker N**. The effect of hospital ownership on quality of care: evidence from England. *Journal of Economic Behavior & Organization* 2018;153:322-344.

Moscelli G, **Jacobs R**, **Gutacker N**, **Aragón MJ**, **Chalkley MJ**, **Mason A**, Bohnke J. Prospective payment systems and discretionary coding – Evidence from English mental health providers. *Health Economics* 2018;doi:10.1002/hec.3851.

Nakamura R, **Mirelman A**, Cuadrado C, Silva N, Dunstan J, **Suhrcke ME**. Evaluating the 2014 sugar-sweetened beverage tax in Chile: An observational study in urban areas. *PLoS Medicine* 2018;15(7):e1002596.

Neumann PJ, Kim DD, Trikalinos TA, **Sculpher M**, et al. Future directions in cost-effectiveness analyses in health and medicine. *Medical Decision Making* 2018;38(7):767-777.

Niessen L, Mohan D, Akuoku J, **Mirelman A**, Ahmed S, Koehlmoos T, Trujillo A, Khan J, Peters D. Tackling socioeconomic inequalities and non-communicable diseases in low-income and middle-income countries under the Sustainable Development agenda. *The Lancet* 2018;391(10134):2036-2046.

Norman G, Westby M, Rithalia A, Stubbs N, **Soares M**, Dumville J. Dressings and topical agents for treating venous leg ulcers. *Cochrane Database of Systematic Reviews* 2018;15(6):CD012583.

**Ochalek J**, **Lomas J**, **Claxton K**. Estimating health opportunity costs in low- and middle-income countries: a novel approach and evidence from cross-country data. *BMJ Global Health* 2018;3(6):e000964.

**Ochalek J**, **Reveill P**, Manthulu G, McGuire F, Nkhoma D, **Rollinger A**, **Sculpher M**, **Claxton K**. Supporting the development of a health benefits package in Malawi. *BMJ Global Health* 2018;3(2):e000607.

O'Hara JK, **Grasic K**, **Gutacker N**, Street A, et al. Identifying positive deviants in healthcare quality and safety: a mixed methods study. *Journal of the Royal Society of Medicine* 2018;111(8):276-291.





# Publications 2018

Pandya A, Doran T, Zhu J, **Walker S**, Arntson E, Ryan AM. Modeling the cost-effectiveness of pay-for-performance in primary care for the UK. *BMC Medicine* 2018;16:135.

**Patton T**, Hu H, Luan L, Yang K, Li S-C. Mapping between HAQ-DI and EQ-5D-5L in a Chinese patient population. *Quality of Life Research* 2018;27(11):2815-2822.

Perera D, Clayton T, Petrie M, Greenwood J, O'Kane P, Evans R, **Sculpher M**, et al. Percutaneous revascularization for ischemic ventricular dysfunction: Rationale and design of the REVIVED-BICIS2 trial: Percutaneous coronary intervention for ischemic cardiomyopathy. *JACC: Heart Failure* 2018;6(6):517-526.

Peron M, Llewellyn A, Moe-Byrne T, **Walker S**, Walton M, Harden M, **Palmer S**, Simmonds M. Adjunctive colposcopy technologies for assessing suspected cervical abnormalities: Systematic reviews and economic evaluation. *Health Technology Assessment* 2018;22(54).

Phelps C, Lakdawalla D, Basu A, **Drummond MF**, Towse A, Danzon P. Approaches to aggregation and decision making – A health economics approach: An ISPOR special task force report [5]. *Value in Health* 2018; 21(2):146-154.

Phillippo D, Ades T, Dias S, **Palmer S**, Abrams K, Welton NJ. Methods for population-adjusted indirect comparisons in Health Technology Appraisal. *Medical Decision Making* 2018;38(2):200-211.

Phillips A, Venter F, Havlir D, Pozniak A, Kuritzkes D, Wensing A, Lundgren J, De Luca A, Pillay D, Mellors J, Cambiano V, Bansi-Matharu L, Nakagawa F, Kalua T, Jahn A, Apollo T, Mugurungi O, Clayden P, Gupta R, Barnabas R, **Revill P**, et al. Risks and benefits for use of dolutegravir-based antiretroviral drug regimens in sub Saharan Africa: a modelling study. *The Lancet HIV* 2018;doi:10.1016/S2352-3018(18)30317-5.

**Reichert A, Jacobs R**. The impact of waiting time on patient outcomes: Evidence from early intervention in psychosis services in England. *Health Economics* 2018;27(11):1772-1787.

**Revill P, Walker S**, Cambiano V, Phillips A, **Sculpher M**. Reflecting the real value of health care resources in modelling and cost-effectiveness studies – The example of viral load informed differentiated care. *PloS One* 2018;13(1):1-13e0190283.

**Ride J, Kasteridis P, Gutacker N**, Kronenberg C, Doran T, **Mason A, Rice N, Gravelle H, Goddard M**, Kendrick T, Siddiqi N, Gilbody S, Dare C, Aylott L, Williams R, **Jacobs R**. Do care plans and annual reviews of physical health influence unplanned hospital utilisation for people with serious mental illness? Analysis of linked longitudinal primary and secondary healthcare records in England. *BMJ Open* 2018;8(11):e023135.

**Saramago Goncalves P**, Yang H, Llewellyn A, Walker R, Harden M, **Palmer S, Griffin S**, Simmonds M. High-throughput non-invasive prenatal testing for fetal rhesus D status in RhD-negative women not known to be sensitised to the RhD antigen: a systematic review and economic evaluation. *Health Technology Assessment* 2018;22(13):1-172.

**Saramago Goncalves P**, Yang H, Llewellyn A, **Palmer S**, Simmonds MC, **Griffin S**. High-throughput, non-invasive prenatal testing for fetal RHD genotype to guide antenatal prophylaxis with anti-D immunoglobulin: a cost-effectiveness analysis. *BJOG An International Journal of Obstetrics and Gynaecology* 2018;125(11):1414-1422.

Sassi F, Belloni A, **Mirelman A, Suhrcke M**, Thomas A, Salti N, Vellakkal S, Visaruthvong C, Popkin B, Nugent R. Equity impacts of price policies to promote healthy behaviours. *The Lancet* 2018;391(10134):2059-2070.

**Sculpher M**. ISPOR's initiative on US value assessment frameworks: seeking a role for health economics. *Value in Health* 2018;21(2):171-2.

Siddharthan T, Pollard S, Quaderi S, **Mirelman A**, Cardenas M, Kirenga B, et al. Effectiveness-implementation of COPD case finding and self-management action plans in low- and middle-income countries: global excellence in COPD outcomes (GECO) study protocol. *Trials* 2018;19(571):1-15.

**Soares M**, Sharples L, Morton A, **Claxton K, Bojke L**. Experiences of structured elicitation for model based cost-effectiveness analyses. *Value in Health* 2018;21(6):715-723.

**Soares M, Walker S, Palmer S, Sculpher M**. Establishing the value of diagnostic and prognostic tests in Health Technology Assessment. *Medical Decision Making* 2018;38:495-508.

South E, **Cox E**, Meader N, Woolacott N, **Griffin S**. Strimvelis® for treating severe combined immunodeficiency caused by adenosine deaminase deficiency: An evidence review group perspective of a NICE highly specialised technology evaluation. *PharmacoEconomics – Open* 2018;doi:10.1007/s41669-018-0102-3.

Sum G, Hone T, Atun R, Millett C, **Suhrcke M**, Mahal A, Koh G, Tayu Lee J. Multimorbidity and out-of-pocket expenditure on medicines: A systematic review. *BMJ Global Health* 2018;3(1):e000505.

Sutton M, Garfield-Birkbeck S, Martin G, Meacock R, Morris S, **Sculpher M**, Street A, Watson SI, Lilford RJ. Economic analysis of service and interventions in health care. *Health Serv Deliv Res* 2018;6(5).

# Publications 2018

Swami M, **Gravelle H**, Scott A, Williams J. Hours worked by General Practitioners and waiting times for Primary Care. *Health Economics* 2018;27(10):1513-1532.

Thokala P, **Ochalek J**, Leech A, Tong T. Cost effectiveness thresholds: the past, the present and the future. *PharmacoEconomics* 2018;36(5):509-522.

Thompson DG, O'Brien S, Kennedy A, Rogers A, Whorwell P, Lovell K, **Richardson G**, et al. A randomised controlled trial, cost-effectiveness and process evaluation of the implementation of self-management for chronic gastrointestinal disorders in primary care, and linked projects on identification and risk assessment. *Programme Grants for Applied Research* 2018;6(1).

Thwaites G, Scarborough M, Szubert A, **Saramago Goncalves P**, **Soares M**, Bostock J, et al. Adjunctive rifampicin to reduce early mortality from *Staphylococcus aureus* bacteraemia: the ARREST RCT. *Health Technology Assessment* 2018;22(59):1-148.

Tierrablanca L, **Ochalek J**, Ford D, Babiker A, Gibb D, Butler K, Turkova A, **Griffin S**, **Revill P**. Economic evaluation of weekends-off antiretroviral therapy for young people in 11 countries. *Medicine* 2018;97(5):e9698.

Wade R, **Grosso A**, South E, **Rothery C**, **Saramago Goncalves P**, **Schmitt L**, Wright K, **Palmer S**. Brodalumab for the treatment of moderate to severe plaque psoriasis: an Evidence Review Group evaluation of a NICE Single Technology Appraisal. *PharmacoEconomics* 2018;doi:10.1007/s40273-018-0698-2.

**Woods B**, **Rothery C**, Anderson S-J, Eaton JW, **Revill P**, Hallett TB, **Claxton K**. Appraising the value of evidence generation activities: An HIV Modelling Study. *BMJ Global Health* 2018;3(6):e000488.

**Woods B**, Sideris E, Sydes MR, Gannon MR, Parmar MKB, Alzouebi M, Attard G, Birtle AJ, Brock S, Cathomas R, Chakraborti PR, Cook A, Cross WR, Dearnaley DP, Gale J, Gibbs S, Graham JD, Hughes R, Jones RJ, Laing R, Mason MD, Matheson D, McLaren DB, Millman R, O'Sullivan JM, Parikh O, Parker CC, Peedell C, Protheroe A, Ritchie AWS, Robinson A, Russell MJ, Simms MS, Srihari NN, Srinivasan R, Staffurth JN, Sundar S, Thalmann GN, Tolan S, Tran ATH, Tsang D, Wagstaff J, James ND, **Sculpher M**. Addition of docetaxel to first-line long-term hormone therapy in prostate cancer (STAMPEDE): Modelling to estimate long-term survival, quality-adjusted survival, and cost-effectiveness. *Eur Urol Oncol* 2018;doi:10.1016/j.euo.2018.06.004.

**Yang F**, Devlin N, Luo N. Impact of mapped EQ-5D utilities on cost effectiveness analysis: in the case of dialysis treatments. *European Journal of Health Economics* 2018;doi:10.1007/s10198-018-0987-x.

**Yang F**, Devlin N, Luo N. Cost-utility analysis using EQ-5D-5L data: does how the utilities are derived matter? *Value in Health* 2018;doi:10.1016/j.jval.2018.05.008.

**Yang F**, Gannon B, Weightman A. Public's willingness to pay towards a medical device for detecting foot ulceration in people with diabetes. *Applied Health Economics and Health Policy* 2018;16(4):559-567.

Yong J, Scott A, **Gravelle H**, Sivey P, McGrail M. Do rural incentives payments affect entries and exits of general practitioners? *Social Science and Medicine* 2018;214:197-205.

## Books and Book Chapters

Baltagi BH, Moscone F, **Santos R**. Spatial health econometrics. In Baltagi BH, Moscone F (eds). *Health Econometrics Contributions to Economic Analysis: Volume 294*. Emerald Group Publishing Limited 2018;13.

**Chalkley MJ**. Incentives and performance of health care professionals. In Hamilton JH (ed). *Oxford Research Encyclopedia of Economics and Finance* Aug 2018;doi:10.1093/acrefore/9780190625979.013.264.

Ciani O, Torbica A, Lecci F, Morelli M, **Drummond MF**, Tarricone R, et al. Myth #5: Health care is rightly left to the private sector, for the sake of efficiency. In Adinolfi P, Borgonovi E (eds). *The Myths of Health Care*. Springer 2018;chapter 5:pp123-154.

**Drummond MF**, Tarricone R, Torbica A. Economic evaluation of medical devices. In Hamilton JH (ed). *Oxford Research Encyclopedia of Economics and Finance* 2018;doi:10.1093/acrefore/9780190625979.013.105.

Jones A, **Rice N**, Robone S. Anchoring vignettes and cross-country comparability: an empirical assessment of self-reported mobility. In Baltagi BH, Moscone F (eds). *Health Econometrics Contributions to Economic Analysis: Volume 294*. Emerald Group Publishing Limited 2018;7.

Pinto D, **Moreno-Serra R**, Cafagna G, Giles Alvarez L. Efficient spending for healthier lives. In Izquierdo A, Pessino C, Vuletin G (eds). *Better Spending for Better Lives: How Latin America and the Caribbean Can Do More with Less*. Washington (DC), Inter-American Development Bank, 2018.

**Santos R**, Barsanti S, Seghieri C. Pay for performance in primary care – the use of administrative data by health economists. In Crato N, Paruolo P (eds). *Data-Driven Policy Impact Evaluation: How Microdata is Transforming Policy Design*. Springer 2018.



# Marie Skłodowska-Curie European Training Network PhD students



## Laurie Rachet Jacquet

**2018 was an intense year but it will remain a memorable one, both professionally and personally.**

In September 2017, I relocated from France to the UK and started my PhD under the Marie Curie European Training Network (ETN). The first months were spent travelling to the partner universities (Hamburg, Lisbon, Milan, Odense and Rotterdam) to attend a set of short courses on econometrics, microeconomics and health economics, together with 14 other ETN fellows.

Equipped with a comprehensive toolbox – as well as a solid knowledge of Manchester airport – I started on my PhD work, which looks at the volume-outcome effect in healthcare. The core idea is to test whether healthcare providers benefit from a ‘learning by doing’ effect in quality of care. Despite policy efforts to concentrate the provision of care or introduce volume thresholds for hospitals across OECD countries, there is little

evidence of a causal effect running from volume to quality beyond a positive correlation.

My first chapter looks at the causal effect of hospital volumes on patient-reported health outcomes (PROMs) for hip replacement patients in England using large administrative data (Hospital Episode Statistics) and accounting for the endogeneity of hospital volumes. I presented results of this first study at the EuHEA conference in Maastricht, in Catania and at the HESG meeting in York.

I was also grateful for the very inclusive and supportive environment that characterises CHE, especially because I came to York without knowing anyone. Definitely, 2018 was a great year.



## Luis Fernandes

**The year of 2018 was a turning point in my life. I left behind my medical career to join CHE and start my PhD. I also became a fellow of a Marie Skłodowska-Curie European Training Network, a consortium of industrial and academic institutions, which works towards improving the quality and performance of European health care systems.**

Regardless of this transition, my current research does not fall far from my medical background. I focus on understanding how physicians practicing in the English NHS respond to different economic incentives. It is reasonable to assume that the desired vision of patient-centred care will be unmet if the people working in the system are forgotten. They are vital in achieving better efficiency and quality of care. My utmost aspiration is to turn the evidence emerging from my research into actionable insights that support policy making for the health workforce.

CHE has proved to be the right place for this journey. Notwithstanding its long tradition in health economics, CHE accumulates unmatched technical knowledge in remarkable and very supportive people. There is no door I cannot knock on for help in here. Finally, CHE is a place where visitors from every corner of the world come and go, leaving invaluable lessons of distinct ways to pursue higher standards of health care. I am grateful to be part of this centre!



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 721402.*

# Publications 2018

**Soares M, Bojke L.** Expert elicitation to inform Health Technology Assessment. In Dias LC, Morton A, Quigley J (eds). *Elicitation: The Science and Art of Structuring Judgement*. Springer International Publishing 2018;Chapter 18:pp479-494.

Tosetti E, **Santos R**, Moscone F, Arbia G. The spatial dimension of health systems. In: *Econometrics, Experimental and Quantitative Methods, Health, Education, and Welfare, Public Economics and Policy*. Oxford Research Encyclopedia, Economics and Finance 2018;30p.

## Other

Di Novi C, **Jacobs R**, Migheli M. Smoking inequality across genders and socioeconomic classes. Evidence from longitudinal Italian data. *Department of Economics and Management DEM Working Paper Series # 152 (02-18)*, University of Pavia, Italy. February 2018;pp:1-24.

Illiott R, Camacho E, Campbell F, **Jankovic D**, Martyn-St James M, Kaltenthaler E, Wong R, **Sculpher M, Faria R**. Prevalence and economic burden of medication errors in the NHS in England: Rapid evidence synthesis and economic analysis of the prevalence and burden of medication error in the UK. *Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU) Report*. 2018;174p.

Gridley K, Aspinall F, Parker G, **Weatherly H, Faria R, Longo F**, et al. Supporting Carers of People with Dementia: A mixed methods evaluation and feasibility study. *Social Policy Research Unit, University of York*, 2018.

**Ochalek J, Lomas J, Claxton K**. Assessing health opportunity costs for the Canadian health care systems. *Patented Medicine Prices Review Board, Government of Canada*. Oct 2018.

**Rothery C, Woods B, Schmitt L, Claxton K, Palmer S, Sculpher M**. Framework for value assessment of new antimicrobials: Implications of alternative funding arrangements for NICE Appraisal. *Policy Research Unit in Economic Evaluation of Health and Care Interventions (EEPRU) Report*. 2018;178p.

Seuring T, Serneels PM, **Suhrcke M**, Bachmann M. Diabetes, employment and behavioural risk factors in China: Marginal structural models versus fixed effects models. *Institute for the Study of Labor (IZA) Discussion Paper No. 11817 September 2018*.

**Suhrcke M**. Disability and development: an economic perspective. In *Eradicating extreme poverty*. Special report, commissioned by the Credit Suisse Research Institute 2018 Davos Edition.

**Tafesse W**. The effect of mandatory iodine fortification on cognitive test scores in rural India. *Health, Econometrics and Data Group (HEDG), University of York 2018; working paper 18/10*.

## CHE Research Papers

**151** Spatial competition and quality: evidence from the English family doctor market.  
**Hugh Gravelle, Dan Liu**, Carol Propper, **Rita Santos**.

**152** Productivity of the English National Health Service: 2015/16 update.  
**Adriana Castelli, Martin Chalkley, Idaira Rodríguez Santana**

**153** Accounting for the quality of NHS output.  
Chris Bojke, **Adriana Castelli, Katja Grašič, Anne Mason**, Andrew Street.

**154** Cost, context and decisions in Health Economics and cost-effectiveness analysis.  
**Anthony J Culyer**.

**155** Setting research priorities in Global Health: Appraising the value of evidence generation activities to support decision-making in health care.  
**Beth Woods, Claire Rothery, Paul Revill**, Timothy Hallett, Andrew Phillips, **Karl Claxton**.

**156** The determinants of health care expenditure growth.  
**Nigel Rice, María José Aragon**.

**157** Paying for efficiency: Incentivising same-day discharges in the English NHS.  
**James Gaughan, Nils Gutacker, Katja Grašič, Noemi Kreif**, Luigi Siciliani, Andrew Street.

**158** Estimating the marginal productivity of the English National Health Service from 2003/04 to 2012/13.  
**James Lomas**, Stephen Martin, **Karl Claxton**.

**159** Recommendations for the development of a health sector resource allocation formula in Malawi.  
**Finn McGuire, Paul Revill**, Pakwanja Twea, Sakshi Mohan, Gerald Manthulu, **Peter C Smith**.



# Presentations 2018

**Laura Bojke.** Eliciting subjective priors for cost-effectiveness modelling. *Theory and Applications of Expert Judgement in Risk and Decision Analysis Workshop*. University of Warwick, UK. January 2018.

**Hugh Gravelle.** Physician competition and low value health care. Evidence from primary care. *Health Economists' Study Group, City, University of London, UK*. January 2018

**Noemi Kreif.** Assessing the extent and quality of evidence on a 'value for money' in health impact evaluations in low- and middle-income countries. *Health Economists' Study Group, City, University of London, UK*. January 2018.

**Noemi Kreif, Nils Gutacker.** Multilevel modelling and performance assessment course. *University of Hamburg, Germany*. January 2018.

**Dan Liu.** The costs and unintended consequences of financial incentives schemes in primary care: a case study of schemes for dementia. *Health Economists' Study Group, City, University of London, UK*. January 2018.

**Andrea Manca.** What is cost-effectiveness analysis? Meeting the challenge of treating cancer in low- and middle-income countries workshop. *European Association for Cancer Research, Nottingham, UK*. January 2018.

**Mark Sculpher.** More money alone is not the cure for the crisis in the NHS. *YorkTalks Research in the Spotlight, University of York, UK*. January 2018.

**Mark Sculpher.** What is the value of a test? Assessing the cost effectiveness of diagnostics. *FILM 2018, Frontiers in Laboratory Medicine, Birmingham, UK*. January 2018.

**Peter C Smith.** Opening plenary address. The role of Health Economics in a 'post-truth' era. *Health Economists' Study Group, City, University of London, UK*. January 2018.

**Marc Suhrcke.** Research design on cost-effectiveness thresholds: initial estimates for Indonesia. *iDSI Workshop, University of Glasgow, UK*. January 2018.

**Miqdad Asaria.** Incorporating equity in HTA. *2nd National Conference on Health Technology Assessment, Chandigarh, India*. February 2018.

**Laura Bojke.** HTA & Health Economics short course. *Ljubljana, Slovenia*. February 2018

**Laura Bojke.** Using economic evaluation in public health decision making. *Doncaster County Council, Doncaster, UK*. February, 2018.

**Martin Chalkley,** Jon Sutton. Providing health care to NHS patients: How much does ownership matter. *Office for Health Economics Seminar, London, UK*. February 2018.

**Karl Claxton.** HTA in United Kingdom: Landscape for evidence informed healthcare. *2nd National Conference on Health Technology Assessment, Chandigarh, India*. February 2018.

**Karl Claxton.** Pharmaceutical pricing: Role of HTA in influencing policy decisions. *2nd National Conference on Health Technology Assessment, Chandigarh, India*. February 2018.

**Karl Claxton.** Health care prioritisation decisions: Lessons from the UK and applicability in the Indian context. *Priority Setting in the Health Sector: Practices and Possibilities for India, The Institute of Economic Growth in Delhi, India*. February 2018.

**James Lomas, Sumit Mazumdar, Jessica Ochalek.** How much should India pay for health care: Empirical estimation of health opportunity cost in India at state level. *Priority Setting in the Health Sector: Practices and Possibilities for India, The Institute of Economic Growth in Delhi, India*. February 2018.

**Andrew Mirelman.** The macroeconomics and welfare benefits of reducing road traffic injuries in low- and middle-income countries. *American University of Beirut, Lebanon*. February 2018.

**Jessica Ochalek.** Priority setting for UHC: Role of HTA. *2nd National Conference on Health Technology Assessment, Chandigarh, India*. February 2018.

**Jessica Ochalek.** Moving from mortality effects to cost per DALY averted. *2nd National Conference on Health Technology Assessment, Chandigarh, India*. February 2018.

**Paul Revill.** The use of economics in global health goals and guideline development. *WHO/UNAIDS, Geneva, Switzerland*. February 2018.

**Paul Revill, Simon Walker.** Introduction to health economics and economic evaluation. Course. *Institute for Infectious Diseases, Makerere University, Kampala, Uganda*. February 2018.



Chandigarh, India

# Presentations 2018

**Simon Walker, Paul Revill.** Resource allocation for health care in Africa and opportunity costs. *KEMRI-Wellcome Trust Research Programme, Nairobi, Kenya.* February 2018.

**Richard Cookson.** Equity-informative health economic evaluation. *Invited presentation at a meeting organised by the International Decision Support Initiative on 'Equity-relevant considerations in transmission modelling'. London School of Hygiene and Tropical Medicine, London, UK.* March 2018.

**Mike Drummond.** Plenary presentation. Policies – for the use of economic evaluation in Europe. Future directions. *The 10th Annual meeting of the German Health Economics Association (DGGÖ), Hamburg, Germany.* March 2018.

**Susan Griffin.** Distributional cost effectiveness analysis. *Workshop convened by TB Modelling and Analysis Consortium (TB-MAC) and Centre for the Mathematical Modelling of Infectious Diseases, LSHTM. Examining the Equity of Global Health Interventions Using Infectious Disease Transmission Models: Informing the Reference Case for Economic Evaluation in Global Health. London, UK.* March 2018.

**Nils Gutacker.** Pay-for-efficiency in the English NHS. *RWI, Germany.* March 2018.

**Marta Soares.** Demonstrating the value of diagnostics to health systems: lessons learnt from a cost-effectiveness evaluation in prostate cancer (PROMIS study). *2nd Donau Symposium on Biomarker Development, Molecular Imaging and Applied Diagnostics. Vienna, Austria.* March 2018.

**Fan Yang.** Cost-utility analysis using EQ-5D-5L data: does how the utilities are derived matter? *3rd EuroQol Academy Meeting, Budapest, Hungary.* March 2018.

**Laura Bojke.** Expert elicitation in Health care decision-making. *NICE Technical Forum, UK.* April 2018.

**Mike Drummond.** Should we approve drugs by indication? *AMCP (Academy of Managed Care and specialty Pharmacy) Annual Meeting, Boston, USA.* April 2018.



Baltimore, USA

**Rita Faria.** Cost-effectiveness of mpMRI, TRUS-biopsy and TPM-biopsy to diagnose clinically significant prostate cancer. *NICE, Manchester, UK.* April 2018.

**Nils Gutacker.** Pay-for-efficiency in the English NHS. *University of Duisburg-Essen, Germany.* April 2018.

**Helen Weatherly.** Methodological issues in the economic evaluation of interventions with intersectoral costs and benefits. *LSHTM/iDSI meeting on Taking a Disaggregated Societal Perspective in Economic Evaluation. Johannesburg, South Africa,* April 2018.

**Mike Drummond.** Orphan drugs: where economics and politics collide. Plenary presentation. *14th EILAT Conference on New Antiepileptic Drugs and Devices. Madrid, Spain.* May 2018.

**Mike Drummond.** Effectively communicating and presenting your research. *ISPOR Annual Meeting, Baltimore, USA.* May 2018.

**Rita Faria.** Cost-effectiveness of diagnosis: tests, pay-offs and uncertainties. *CHE Seminar, University of York, UK.* May 2018.

**Susan Griffin.** Podium presentation. An analytical framework for economic evaluation of interventions with effects on multiple outcomes, costs falling on different budgets, and involving more than one decision maker. *ISPOR Annual Meeting, Baltimore, USA.* May 2018.

**Noemi Kreif, Andrew Mirelman.** Empirical estimates of cost-effectiveness thresholds in Indonesia. *University of Indonesia School of Public Health, Indonesia.* May 2018.

**Jessica Ochalek.** Judging cost effectiveness: Decision rules, value judgments and thresholds. *China Health Technology Assessment Workshop, China National Health Development Research Center, Beijing, China.* May 2018.

**Laetitia Schmitt.** A value of information approach to air pollution health risk management and a challenge to current guidelines for addressing evidential uncertainty. *Health and Environment. Economic modelling of how health and environment interact in a changing world conference, Essen, Germany.* May 2018.

**Mark Sculpher.** Evidence for health technology assessments: The role of clinical trials versus real world evidence and how to judge value. *The Memorial Sloan Kettering Cancer Centre, New York, USA.* May 2018.

**Marc Suhrcke, Noemi Kreif, Andrew Mirelman.** On the journey towards estimating cost-effectiveness thresholds in Indonesia. *Invited Workshop held at the HTA Asialink Conference. Chiang Mai, Thailand.* May 2018.



# Presentations 2018

**Edward Cox.** The cost-effectiveness of strategies for the initial management of potential infection in advanced HIV. *Research Staff Conference 'On Your Doorstep: Celebrating Researchers and Research at York', University of York, UK. June 2018.*

**James Gaughan.** Waits in A&E departments of the English NHS. *International Health Congress, University of Oxford, UK. June 2018.*

**Susan Griffin.** Distributional cost effectiveness assessment. *Workshop on Algorithms and Fairness: What are the Limits of Predictive Algorithms in Public Policy? UCL Institute of Health Informatics, London, UK. June 2018.*

**Susan Griffin.** Talk and webinar. Distributional cost effectiveness analysis (DCEA) applied to health inequalities. *PHE South East Public Health Information Group Meeting, UK. June 2018.*

**Alessandro Grosso.** The impact of structural assumptions on decision uncertainty: a case study on the prevention of neonatal infections in preterm babies. *Health Economists' Study Group, University of Bristol, UK. June 2018.*

**Nils Gutacker.** Paying for efficiency in the English NHS. *Lancaster University, UK. June 2018.*

**Nils Gutacker.** Paying for efficiency in the English NHS. *University of Hamburg, Germany. June 2018.*

**Rowena Jacobs.** Invited keynote presentation. The organisation and funding of mental health services. *Essen Economics of Mental Health Workshop, University of Duisburg-Essen, Germany. June 2018.*

**Rowena Jacobs.** Invited keynote presentation. The organisation and funding of mental health services. *2018 International Health Conference, St Hugh's College, Oxford, UK. June 2018.*

**Georgios Nikolaidis.** A 'borrowing-of-strength' framework for Health Technology Assessment (HTA). *Health Economists' Study Group, University of Bristol, UK. June 2018.*

**Francesco Ramponi.** Cross-sectoral economic evaluation of public health interventions: a case study on alcohol consumption. *Health Economists' Study Group, University of Bristol, UK. June 2018.*

**Paul Revill.** The strengths and weaknesses of current economic modelling research on PrEP. *Shaping PrEP Modelling for High Burden Countries in Sub Saharan Africa meeting. Jointly convened by WHO and UNAIDS, funded by Gates Foundation, Geneva, Switzerland. June 2018.*

**Paul Revill.** Plenary address. Priority setting and health benefits package design. *East, Central and Southern Africa Health Community (ECSA-HC) 11th Best Practices Forum and 27th Directors Joint Consultative Committee meeting. Arusha, Tanzania. June 2018.*



Leiden, The Netherlands

**Idaira Rodríguez Santana.** Gender imbalances in medical specialty training. *Analysing the Impact of a Policy Change in Spain. 38th Edition of the Spanish Health Economics Association Conference, Gran Canaria, Spain. June 2018.*

**Rita Santos.** Quality in primary care: is it possible to identify peer effects among English GP practices? *XII World Conference of the Spatial Econometrics Association (SEA). Vienna, Austria. June 2018.*

**Mark Sculpher.** Establishing the value of new antimicrobials: proposed methods for appraisal by the National Institute for Health and Care Excellence in the UK. *BIO International Convention, Boston, USA. June 2018.*

**Mark Sculpher.** Striving for a societal perspective: assessing the cost-effectiveness of interventions with costs and effects falling on multiple sectors and decision makers. *Center for the Evaluation of Value and Risk in Health, Institute for Clinical Research and Health Policy Studies, Tufts Medical Centre, Boston, USA. June 2018.*

**Peter Smith.** Reframing the dialogue between health and finance on investing in health systems. *World Health Organization Conference on Health Systems for Prosperity and Solidarity, Tallinn, Estonia. June 2018.*

**Marta Soares.** Informing cost-effectiveness modelling of diagnostic technologies: generating elicited priors to capture model uncertainties. *Workshop on: Model-Based Health Economic Evaluation on Diagnostic Tests and Biomarkers: Handling the (lack of) Evidence. Society for Medical Decision Making (SMDM) Biennial European Conference, Leiden, the Netherlands. June 2018.*

**Marta Soares.** Partitioned survival analysis for decision modelling in health care: a critical review. *Workshop on Modelling Techniques for Estimating Survival in Oncology. Society for Medical Decision Making (SMDM) Biennial European Conference, Leiden, the Netherlands. June 2018.*

**Marta Soares.** Experiences of structured elicitation for cost-effectiveness analyses. *Centre for Statistical Methodology, London School of Hygiene and Tropical Medicine, UK. June 2018.*

# Presentations 2018

**Wiktorja Tafesse.** The effect of mandatory iodine fortification on cognitive test scores in rural India. *American-European Health Economics Study Group (III Edition), Harvard Business School, Boston, USA.* June 2018.

**Simon Walker.** The value of air pollution interventions in West Yorkshire: An economic evaluation considering multiple outcomes, inequality impacts and costs falling on different decision makers. *MDM European Conference, Leiden, the Netherlands.* June 2018.

**Mike Drummond.** Challenges in the economic evaluation of cancer drugs. *4th St Petersburg International Oncology Forum. St Petersburg, Russia.* July 2018.

**Ana Duarte.** Do Care Hubs reduce hospital admissions? A differences-in-differences to support local decision making. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Ana Duarte.** Evaluation of complex interventions: MoRE lessons learnt and ways forward. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Susan Griffin.** Quantifying the added societal value of public health interventions in reducing health inequality. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Rowena Jacobs.** Does better quality primary care reduce total costs of primary, community and secondary health care for patients with serious mental illness? *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Rowena Jacobs.** Association between incentivized primary care and outcomes for people with serious mental illness in the UK's Quality and outcomes framework: Analysis of linked longitudinal primary and secondary care data. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Francesco Longo.** Does hospital competition improve efficiency? The effect of the patient choice reform in England. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Jessica Ochalek.** Accounting for health opportunity costs in benefits package design. *CRITERIA Webinar Series, RED CRITERIA, an initiative of the Inter-American Development Bank.* July 2018.

**Tom Patton.** Identifying multinational cost data: A methodological review and case study. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Laurie Rachet Jacquet.** The causal effect of volume on health gains from hip replacement surgery: Evidence from England. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Francesco Ramponi.** Cross-sectoral economic evaluation of public health interventions: a case study on alcohol consumption. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018

**Nigel Rice.** The disutility of commuting? The effects of gender and local labour markets. *6th Italian Health Econometrics Workshop, Bergamo, Italy.* July 2018.

**Rita Santos.** Peer effects in quality among English GP practices. *6th Italian Health Econometrics Workshop. Bergamo, Italy.* July 2018.

**Simon Walker.** The value of air pollution interventions in West Yorkshire: an economic evaluation considering multiple outcomes, inequality impacts and costs falling on different decision makers. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Simon Walker.** Striving for a societal perspective: an analytical framework for the economic evaluations of interventions with costs and effects falling on multiple sectors and decision makers. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Simon Walker.** Uncertainty and risk assessment in HTA: New developments and remaining research gaps. *European Health Economics Association (EuHEA) Conference 2018, Maastricht, the Netherlands.* July 2018.

**Susan Griffin.** Methodological challenges for NICE evaluations beyond the health sector: cross sector flows. *NICE Technical Forum, London, UK.* August 2018.

**Pedro Saramago Goncalves.** Invited speaker. Challenges in the economic evaluation of medical devices. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Pedro Saramago Goncalves.** Invited speaker. Introduction to evidence synthesis for decision modelling. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Pedro Saramago Goncalves.** Invited speaker. Advanced methods of quantitative synthesis for decision modelling. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Peter C Smith.** Opening Plenary. Influencing health policy in a post-truth era: the role of health economics. *39th Nordic Health Economic Study Group (NHESG), Tromsø, Norway.* August 2018.



# Presentations 2018

**Marta Soares.** Invited speaker. Partitioned survival analysis for decision modelling in health care. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Marta Soares.** Invited speaker. NICE's decision making: the technology appraisal and diagnostic assessment processes. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Marta Soares.** Invited speaker. Estimating health opportunity costs for the UK National Health Service. *Workshop on NICE's Decision Making and State-of-Art Methods in HTA, University of Eastern Finland, Kuopio, Finland.* August 2018.

**Helen Weatherly.** Scoping review on social care economic evaluation methods. *NICE Technical Forum, London, UK.* August 2018.

**Karl Claxton.** Estimating cost effectiveness thresholds for Canadian Provinces. *Network of Alberta Health Economists, Institute of Health Economics, Alberta, Canada.* September 2018.

**Ana Duarte.** Do Care Hubs reduce hospital admissions? A differences-in-differences to support local decision making. *International Society on Priorities in Health, Biannual International Conference 2018, Linköping, Sweden.* September 2018.

**Ana Duarte.** Evaluation of complex interventions: MoRE lessons learnt and ways forward. *International Society on Priorities in Health, Biannual International Conference 2018, Linköping, Sweden.* September 2018.

**Rita Faria.** Lessons from a cost-effectiveness analysis of tests to diagnose clinically significant prostate cancer. *Methods for Economic Evaluation of Diagnostics Research Forum, University of Leeds, UK.* September 2018.

**Rita Faria.** Buy 1 get 2 free: Cost-effectiveness analysis of cascade testing in familial hypercholesterolaemia. *Methods for Economic Evaluation of Diagnostics Research Forum, University of Leeds, UK.* September 2018.

**Nils Gutacker.** Identifying positive deviants in hip and knee replacement. *Positive Deviants Workshop, University of Bradford, UK.* September 2018.

**Luis Fernandes.** Hospital and physician effects on treatment choices. *EuHEA PhD Student-Supervisor and Early Career Researcher Conference 2018, Catania, Italy.* September, 2018.

**Alessandro Grosso.** The impact of structural assumptions on decision uncertainty: a case study on the prevention of neonatal infections in preterm babies. *5th European Health Economics Association PhD Student-Supervisor and Early Career Researcher Conference, Catania, Italy.* September 2018.



Leeds, UK

**Rowena Jacobs.** The economics of mental health and mental health care. Invited presentation at the *Workshop on the Economics of Mental Health Policy, Rome, Italy.* September 2018.

**Georgios Nikolaidis.** A systematic review and classification of the methods to 'Borrow Strength' in Health Technology Assessment. *Royal Statistical Society (RSS) 2018 International Conference, Cardiff, UK.* September 2018.

**Laurie Rachet Jacquet.** The causal effect of volume on health gains from hip replacement surgery: Evidence from England. *5th European Health Economics Association PhD Student-Supervisor and Early Career Researcher Conference, Catania, Italy.* September 2018.

**Francesco Ramponi.** Incorporating health equity concerns in the cross-sectoral cost-effectiveness analysis of public health interventions: a case study on alcohol consumption. *5th European Health Economics Association PhD Student-Supervisor and Early Career Researcher Conference, Catania, Italy.* September 2018.

**Jemimah Ride.** Is the HoNOS a therapeutically meaningful clinical outcome measure, or a bureaucratic tick-box exercise? Qualitative analysis of the views of mental health service providers in the UK. *Fourth Meeting on Patient Reported Outcomes and Person Centered Care in Mental Health, Washington DC, USA.* September 2018.

**Jemimah Ride.** Can care plans or provider continuity in primary care influence use of specialist mental health care for patients with serious mental illness? *Fourth Meeting on Patient Reported Outcomes and Person Centered Care in Mental Health, held in Washington DC, USA.* September 2018.

**Mark Sculpher.** The basis to establish an appropriate price for a new pharmaceutical. *ISPOR, Tokyo, Japan.* September 2018.

# Presentations 2018

**Mark Sculpher.** Estimating health opportunity costs in the Asia-Pacific region. *ISPOR, Tokyo, Japan.* September 2018.

**Mark Sculpher.** The use of QALYs in HTA. *ISPOR. ISPOR, Tokyo, Japan.* September 2018.

**Peter C Smith.** Is there an economic case for investing in the NHS? Really? *Annual Lecture, Office of Health Economics, London, UK.* September 2018.

**Peter C Smith.** Plenary. Affordable innovative health systems. *Workshop on the Healthcare Value Chain: Data and Cooperation for Efficiency Gains, European Commission, Brussels, Belgium.* September 2018.

**Helen Weatherly.** Economic evaluation: what is it and why do we need to do it? *The Martin House Research Centre 1st Biennial Research Conference, University of York, UK.* September 2018.

**Fan Yang.** Impact of mapped EQ-5D utilities on cost effectiveness analysis: In the case of dialysis treatments. *35th EuroQol Plenary meeting, Lisbon, Portugal.* September 2018.

**Laura Bojke.** HTA & Health Economics short course. *Ljubljana, Slovenia.* October 2018.

**Susan Griffin.** Distributional cost effectiveness analysis of low emission zone policies. *ISPOR pre-summit session – New Approaches to Value Assessment: Towards More Informed Pricing in Healthcare, Washington, USA* October 2018

**Susan Griffin.** Talk and webinar. Distributional cost effectiveness analysis (DCEA). *ISPOR Summit – New Approaches to Value Assessment: Towards More Informed Pricing in Healthcare. Washington, USA.* October 2018.

**Pedro Saramago Goncalves.** Evidence synthesis for health care decision making. *Seminar at the University of York, UK.* October 2018.



Cardiff, UK

**Andrew Mirelman.** Issues when using cost-effectiveness thresholds. *Pre-congress session at the Indonesian Health Economics Association Annual Scientific Meeting. Jakarta, Indonesia.* October 2018.

**James Love-Koh.** Incorporating concerns for equity into health resource allocation. *Presentation to Senior Policymakers and Academics from East, Central and Southern Africa (ECSA), University of York, UK.* October 2018.

**Jessica Ochalek, Matthias Arnold.** Health benefit package design. *Presentation to Senior Policymakers and Academics from East, Central and Southern Africa (ECSA), University of York, UK.* October 2018.

**Jessica Ochalek.** Accounting for health opportunity costs in health benefits package design. *Pre-congress session at the Indonesian Health Economics Association Annual Scientific Meeting. Jakarta, Indonesia.* October 2018.

**Peter Smith.** Fiscal sustainability: are health systems the problem or the solution? *Opening Plenary, 21st European Health Forum, Gastein, Austria.* October 2018.

**Marc Suhrcke, Noemi Kreif.** Plenary session. Global Health Economics and Econometrics (GHE2): Impact evaluation of the national health Policy. *5th Annual Meeting of the Indonesian Health Economics Association (InaHEA), Jakarta, Indonesia.* October 2018.

**Marc Suhrcke, Noemi Kreif, Andrew Mirelman.** Estimating cost-effectiveness thresholds/health opportunity costs in Indonesia. *Invited Workshop held at the Indonesian Health Economics Association Annual Scientific Meeting. Jakarta, Indonesia.* October 2018.

**Wiktorija Tafesse.** Application of industrial organization theory to inform Government contracting with faith-based providers in Malawi. *Fifth Global Symposium on Health Systems Research 2018. Pre-conference workshop: 'Payment for Performance (P4P), How, Why, Where and What?' Liverpool, UK.* October 2019.

**Matthias Arnold.** Thanzi la Onse (Health of all): Health benefits package design in LMIC. *Institute of Health Economics and Health Care Management, Helmholtz Zentrum München, German Research Center for Environmental Health, Neuherberg, Germany.* November 2018

**Laura Bojke.** Can we believe their beliefs: Is expert elicitation (cost) effective? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Mike Drummond.** Will machines soon make health economists obsolete? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.



## Presentations 2018

**Mike Drummond.** Changing paradigm in the evaluation of the value of medical devices: what must stakeholders expect in the new decade? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Pedro Saramago Goncalves.** Evidence synthesis for health care decision making. *Workshop at the University of York, UK.* November 2018.

**Nils Gutacker.** Pay-for-efficiency in the English NHS. *NHS Improvement, London, UK.* November 2018.

**Rita Faria.** Methods in practice. *Workshop, NICE/DSU/ABPI Masterclass Using non-randomised data to estimate treatment effects in NICE submissions. London, UK.* November 2018.

**Rita Faria, Mike Drummond.** Workshop. How to communicate cost-effectiveness analysis to a lay audience? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Andrea Manca.** Short Course. Mapping to estimate utility values from non-preference based outcome measures. *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Rodrigo Moreno-Serra.** Keynote speaker. *FAPESP- GACD Implementation Science Research Training School, Campinas, Brazil.* November 2018.

**Mark Sculpher.** Do novel value measures have a place in European HTA? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Mark Sculpher.** Valuing a cure: are new approaches needed? *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Mark Sculpher.** What is good for the environment is good for healthcare – how to consider green sustainability in value assessments and purchasing decisions. *ISPOR Europe 2018, Barcelona, Spain.* November 2018.

**Richard Cookson.** Keynote presentation. Universal health coverage and equity. *From Past to Future in Global Health Reflections after 30 years with Centre for International Health University of Bergen, Norway.* December 2018.

**Hugh Gravelle.** Relationship between size and quality in general practice. *Primary Care Data Workshop. Manchester, UK.* December 2018.

**Susan Griffin.** Establishing the value for money of investing in an intervention that releases resources and reduces future expected health gains among recipients. *Economic Evaluation Seminar, University of York, UK.* December 2018.



Jakarta, Indonesia

**Noemi Kreif.** Estimating health opportunity costs in Indonesia. *iDSI Workshop: 'Can we afford UHC? Yes as long as we get our economics right!' Bellagio, Italy.* December 2018.

**Andrew Mirelman.** Equity and economic evaluation in low- and middle-income countries. *Measuring and Improving Health Equity Conference, USC Schaeffer Center for Health Policy and Economics, University of Southern California, USA.* December 2018.

**Nigel Rice.** Does maternal mental health during and straight after pregnancy affect child development? *Health Organisation, Policy and Economics, Manchester University, UK.* December 2018.

**Rita Santos.** Impact of merges on GP practice quality. *Primary Care Data Workshop. Manchester, UK.* December 2018.

**Mark Sculpher.** Enhancing the value of RCTs using decision analysis. *University of Bristol, UK.* December 2018.

**Wiktorja Tafesse.** The causal impact of iodised salt availability on children's heights in rural India. *14th Annual Conference on Economic Growth and Development, Indian Statistical Institute, Delhi, India.* December 2018.

# Staff

## New Research Staff



### Misael Anaya Montes

*Research Fellow*

Misael joined the Health Policy Team in January 2018. 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.



### Karel Haal

*Research Fellow*

Karel Haal joined CHE in October 2018 as a Research Fellow working on the Thanzi la Onse research programme.



### Matthias Arnold

*Research Fellow*

Matthias joined CHE in May 2018 as a research fellow for the Thanzi la Onse project. Matthias holds degrees from the University of Heidelberg (Master-level degree in economics), University College London (MSc Global Health and Development), and LMU Munich (Master of Business Research).



### Martin Harker

*Research Fellow*

Martin joined CHE in September 2018 as a research fellow in the Team for Economic Evaluation and Health Technology Assessment, working on a number of global health projects, including the Thanzi la Onse programme. He holds a BA in Natural Sciences (Genetics) from the University of Cambridge and an MSc in Public Health (Health Economics) from the London School of Hygiene & Tropical Medicine.



### Alastair Bennett

*Research Fellow*

Alastair joined the Team for Economic Evaluation and Health Technology Assessment in August 2018. He completed an MSc in Operational Research in 2015 and a BSc in Mathematics in 2014. His interests lie in facilitating informed decision-making in haemato-oncology and using advanced modelling methods to elicit cost effective treatments.



### Sumit Mazumdar

*Research Fellow*

Sumit joined the Global Health Economics Group in April 2018. Until recently he worked as Assistant Professor (Health Economics and Policy) at the Institute of Public Health Kalyani (IPHK), West Bengal, India. He holds a PhD in Health Economics and a Masters in Population Studies from the International Institute of Population Sciences, Mumbai, along with a university degree in Economics.



# Staff

## New Research Staff



### Maria Lucia Pace

*Research Fellow*

Maria joined the Health Policy Team in February 2018. She has a PhD in Public Economics from the Università Cattolica del Sacro Cuore in Milan (October 2017). During the PhD she focused on the study of Inequality of Opportunity in Italy and its impact on GDP growth.



### Wiktorja Tafesse

*Research Fellow*

Wiktorja joined CHE in May 2018 as a research fellow for the Thanzi la Onse project. She holds a PhD in Economics from the University of Sussex which was funded by the Economic and Social Research Council. Her doctoral thesis focussed on the causes and consequences of nutrition in the UK and India. She also holds a MSc in Development Economics from the University of Sussex and a BSc in Economics and Political Science from the University of Stockholm.



### Adriañ Villaseñor-Lopez

*Research Fellow*

Adrian joined the Health Policy team in January 2018. Before joining CHE, he held a postdoctoral position at the Pontifical Catholic University of Chile applying impact evaluation methodologies to environmental programmes. He has now moved to the Department of Environment here at York.

## PhD Students 2018

**Gowokani Chirwa**

**Georgios Nikolaidis**

**David Glynn**

**Francesco Ramponi**

**Richard Mattock**

**Anika Reichert**

**Finn McGuire**

## New PhD students 2018

### Finn McGuire

Finn was awarded the CHE PhD studentship in 2018. His research interests are in the economic evaluations of health technologies and quantitative evaluations of health policies applied in low and middle-income countries. Prior to joining CHE he worked as a Research Fellow in Health Economics and Policy at the London School of Hygiene & Tropical Medicine and as an economist at the Ministry of Health in Malawi under the ODI Fellowship Scheme.



## Research Fellows also registered for a PhD in 2018

**Luis Fernandes**

**Rita Santos**

**James Gaughan**

**Ieva Skarda**

**Katja Grašič**

**Jemimah Ride**

**Laurie Rachet  
Jacquet**

# Staff

## Research Staff 2018

### Maria Goddard

Professor and Director  
of CHE

### James Altunkaya

NIHR Research Methods  
Fellow

### Misael Anaya Montes

Research Fellow

### María José Aragon

Research Fellow

### Matthias Arnold

Research Fellow

### Miqdad Asaria

Research Fellow

### Alastair Bennett

Research Fellow

### Laura Bojke

Reader

### Adriana Castelli

Senior Research Fellow

### Martin Chalkley

Professor

### Pei Fen Chuar

NIHR Research Methods  
Intern

### Karl Claxton

Professor

### Richard Cookson

Professor

### Edward Cox

Research Fellow

### Michael Drummond

Professor

### Ana Duarte

Research Fellow

### Rita Faria

Research Fellow

### Luis Fernandes

Marie Curie Early Stage  
Researcher

### Aimée Fox

Research Fellow

### Francesco Fusco

Research Fellow

### James Gaughan

Research Fellow

### Vijay Gc

Research Fellow

### Katja Grašič

Research Fellow

### Hugh Gravelle

Professor

### Susan Griffin

Senior Research Fellow

### Alessandro Grosso

NIHR Research Methods  
Fellow

### Nils Gutacker

Senior Research Fellow

### Karel Haal

Research Fellow

### Martin Harker

Research Fellow

### Sebastian Hinde

Research Fellow

### Nikita Jacob

Research Fellow

### Rowena Jacobs

Professor

### Dina Jankovic

Research Fellow

### Hyacinthe Kankeu

Research Fellow

### Panos Kasteridis

Research Fellow

### Noemi Kreif

Research Fellow

### Dan Liu

Research Fellow

### James Lomas

Research Fellow

### Francesco Longo

Research Fellow

### James Love-Koh

Research Fellow

### Andrea Manca

Professor

### Anne Mason

Senior Research Fellow

### Sumit Mazumdar

Research Fellow

### Andrew Mirelman

Research Fellow

### Rodrigo Moreno- Serra

Reader

### Jessica Ochalek

Research Fellow

### Maria Lucia Pace

Research Fellow

### Stephen Palmer

Professor

### Thomas Patton

Research Fellow

### Laurie Rachet Jacquet

Marie Curie Early Stage  
Researcher

### Paul Revill

Senior Research Fellow

### Nigel Rice

Professor

### Gerry Richardson

Professor

### Jemimah Ride

Research Fellow

### Idaira Rodríguez Santana

Research Fellow

### Claire Rothery

Senior Research Fellow

### Irene Sanchez

Research Fellow

### Rita Santos

Research Fellow

### Pedro Saramago Goncalves

Research Fellow

### Laetitia Schmitt

Research Fellow

### Mark Sculpher

Professor

### Ieva Skarda

Research Fellow

### Peter C Smith

Professor

### Marta Soares

Senior Research Fellow

### Marc Suhrcke

Professor

### Wiktoria Tafesse

Research Fellow

### Adrian Villaseñor- Lopez

Research Fellow

### Simon Walker

Senior Research Fellow

### Helen Weatherly

Reader

### Beth Woods

Senior Research Fellow

### Fan Yang

Research Fellow

## Emeritus Professor

### Tony Culyer

## Honorary Professors

### Keith Derbyshire



# Staff

## Honorary Visiting Fellows

**Marco Barbieri**

**Mark Dusheiko**

**David Epstein**

**Manuel Espinoza**

**Rob Hettle**

## Visitors to CHE

**Josh Carlson**

University of Washington, USA

**Iliya Zarubin**

University of Cologne, Germany

**Ijeoma Edoka**

PRICELESS Group, University of Witwatersrand, Johannesburg, South Africa

**Nishant Jain**

Indo-German Social Security Programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), New Delhi, India

**Olivia Bodnar**

Dusseldorf Institute for Competition Economics, Heinrich-Heine University of Düsseldorf, Germany

**Tony Scott**

The University of Melbourne, Australia

**Giuseppe Moscelli**

University of Surrey, UK

**Jan Hakon Rudolfson**

University of Tromsø, Norway

**Tilman Bruck**

International Security and Development Center, Germany

**Martin Harker**

National Guidelines Centre, Royal College of Physicians, London, UK

**Abigail Colson, Alec Morton**

University of Strathclyde, UK

**Kaat de Corte**

London School of Hygiene and Tropical Medicine, UK

**Jonathan Siverskog**

Linköping University, Sweden

**Martin Henrikson**

Linköping University, Sweden

## CHE Visiting Fellows

In 2018, **Giancarlo Buitrago Gutierrez**

and **Ankur Pandya**

were awarded Fellowships and will visit CHE in 2019.

Giancarlo is from Pontificia Universidad Javeriana, Bogota, Colombia and his research project will be 'Effects of armed conflict during birth and the first three months of life on mortality and the use of healthcare services among infants under 1 year of age'.

Ankur is from Harvard T.H. Chan School of Public Health, Boston, USA and his research project will be 'Leveraging cost-effectiveness analysis to identify and reduce low-value care'.

## Administrative and Support Staff

**Kerry Atkinson**

Administrator

**Linda Baillie**

Administrator

**Laure Bedecarrax**

Project Coordinator

**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

**Deborah Marston**

Finance and Research Support Administrator

**Joanne Milner**

Finance and Research Support Administrator

**Stevie Paterson**

Ambitious Futures Placement

**Stephanie Richards**

Administrator

**Gillian Robinson**

Administrator

**Alexandra Rollinger**

Project Manager

**Trish Smith**

Centre Manager

**Vanessa Wood**

Finance and Research Support Co-ordinator

## New Administrative and Support Staff



**Deborah Marston**

Finance and Research Support Administrator



**Stevie Paterson**

Ambitious Futures Placement



**Joanne Milner**

Finance and Research Support Administrator



**Stephanie Richards**

Administrator



UNIVERSITY  
*of York*



Centre For Health Economics

Centre for Health Economics  
University of York  
York YO10 5DD UK  
Tel +44 (0)1904 321401  
[che-web@york.ac.uk](mailto:che-web@york.ac.uk)  
[www.york.ac.uk/che](http://www.york.ac.uk/che)  
@CHEyork  
CentreForHealthEconomics



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