

OHE

2018 OHE Annual
Report to the Charity
Commission



Research Report



OCTOBER 2019

OHE Annual Report to the Charity Commission for the year 2018

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About OHE





About OHE

HOW WE ARE ORGANISED

OHE is a charity with registered charity number 1170829. OHE is managed by a senior management team. Its governance is the responsibility of its Board of Trustees. In 2017 the Board of Trustees had three sub-committees with advisory roles: a Research and Policy Committee, which provided advice and guidance to OHE on its research programme; an Editorial Committee, which reviewed OHE's in-house publications, ensuring their intellectual rigour and value; and a Management Committee, which assisted OHE with its operational and business planning.

The ultimate parent undertaking and controlling party of the company is The Association of the British Pharmaceutical Industry Limited ("the ABPI"), registered in England and Wales 09826787, by virtue of it being the sole member of the company.

OHE's consulting work is carried out by OHE Consulting Limited, a for-profit company with registered company number 09853113. OHE Consulting Limited is wholly owned by The Office of Health Economics. For consulting projects, the client has a proprietary right to any intellectual property arising from the work, distinct from research projects where OHE retains the intellectual property.

OHE's Mission Statement

Support better health care policies by providing insightful economic and statistical analyses of critical issues

“

Our strategic perspective emphasises projects tackling policy and strategic issues that affect the present and will shape the future.”

WHO WE ARE, HOW AND WHERE WE WORK

In 2018 the OHE team comprised three Directors, two Principal Economists, one Senior Economist, one Business Intelligence specialist, ten Economists, three administrative support staff and seven Honorary Visiting Fellows.

Our strategic perspective emphasises projects tackling policy and strategic issues that affect the present and will shape the future. We work closely with stakeholders, clients and external experts to develop important new policy insights, define strategies and identify optimal choices.

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OHE is based in London, but we undertake projects both in the UK and

HOW WE ARE FUNDED

OHE is based in London, but we undertake projects both in the UK and internationally. We work collaboratively with a wide network of academics and other partners across the world.

OHE's work programme is supported by research grants and consultancy revenues from a wide range of UK and international sources. OHE receives an annual research grant from the Association of the British Pharmaceutical Industry (ABPI), and undertakes consulting work for ABPI and other commercial clients, surplus from which is used to self-fund research we identify as priorities.

Our research programme is also funded by grants obtained from UK

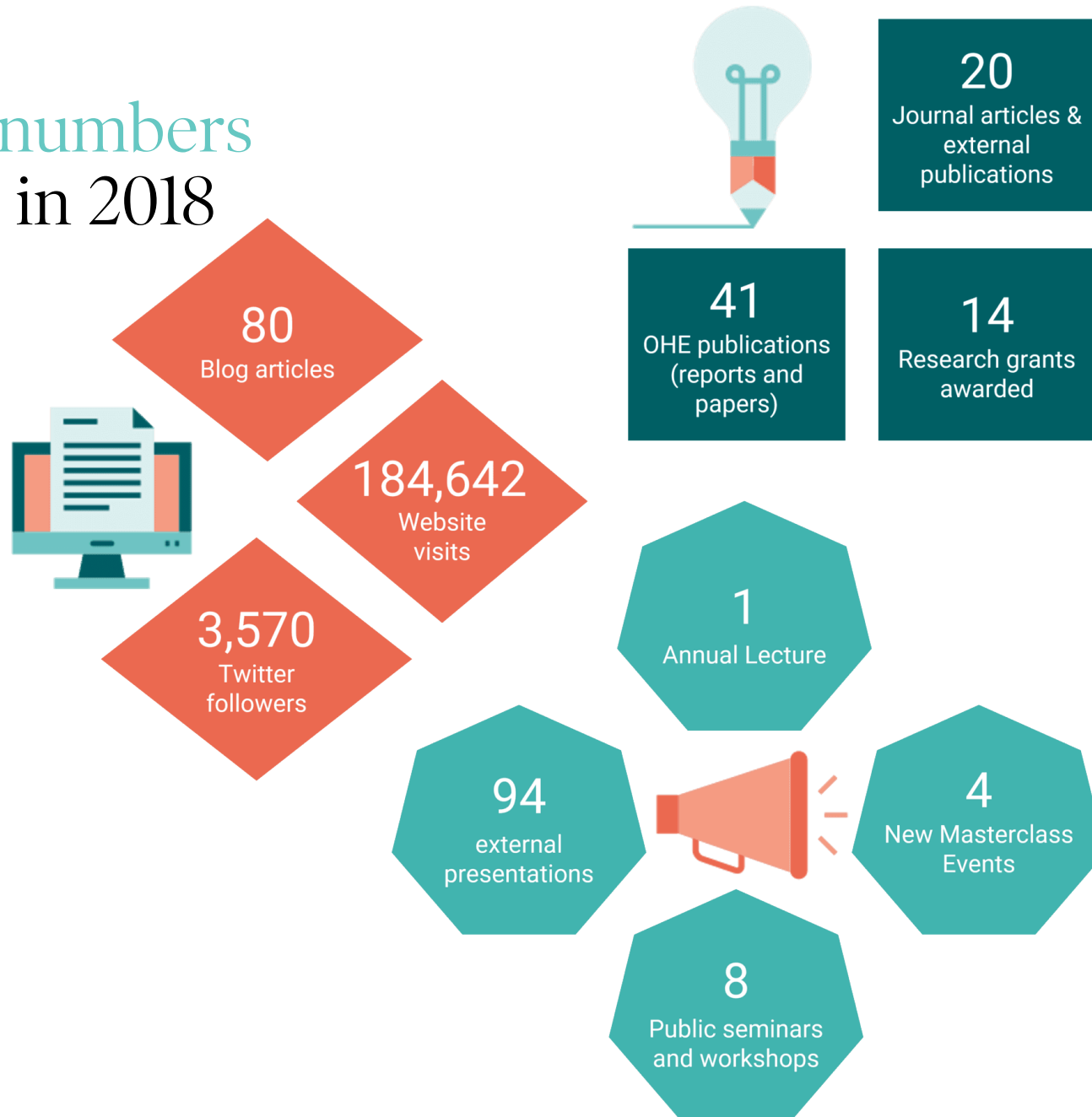
Our research programme is also funded by grants obtained from UK research councils and other national and international research funders, including the National Institute for Health Research (NIHR), the Medical Research Council (MRC), the EuroQol Research Foundation, and a number of charitable and other organisations.

A grayscale photograph of a person's hand pointing at a line graph. The hand is wearing a watch with a dark strap and a light-colored face. The line graph is overlaid on the image, with several data points connected by lines. The background is a blurred office setting.

OHE's year in numbers

1 Our year in numbers

OHE in 2018





Administrative information

2 Administrative information

Trustees and Directors

Mr H Ahmad Trustee (appointed 1 August 2018)

Ms L Anson Trustee (resigned 1 August 2018)

Prof M Drummond Trustee

Ms C Fox Trustee (appointed 3 September 2018)

Mr B Hickey Trustee (resigned 3 September 2018)

Prof B Jönsson Trustee

Mr P Thompson Trustee

Registered Office

7th Floor, Southside

105 Victoria Street

London SW1E 6QT

Charity number: 1170829

Company number: 09848965

Auditor

BDO LLP

Statutory Auditor & Chartered Accountants

2 City Place

Beehive Ring Road

Gatwick

West Sussex RH6 0PA

Bankers

National Westminster Bank Plc

PO Box 113

Cavell House

2A Charing Cross Road

London

Senior Management Team in 2018

Director

Prof Adrian Towse

Director Designate

Prof Graham Cookson

Director of Research

Prof Nancy Devlin

Deputy Director and Director of Consultancy

Paula Lorgelly

Associate Directors:

Martina Garau

Koonal Shah

Senior Management Team in 2019

Chief Executive Officer

Prof Graham Cookson

Head of Research and Vice President

Prof Mireia Jofre-Bonet

Head of Consultancy and Vice President

Prof Lotte Steuten

Director:

Martina Garau

Associate Directors:

Grace Hampson

Chris Skedgel



Introduction to OHE



3 Introduction

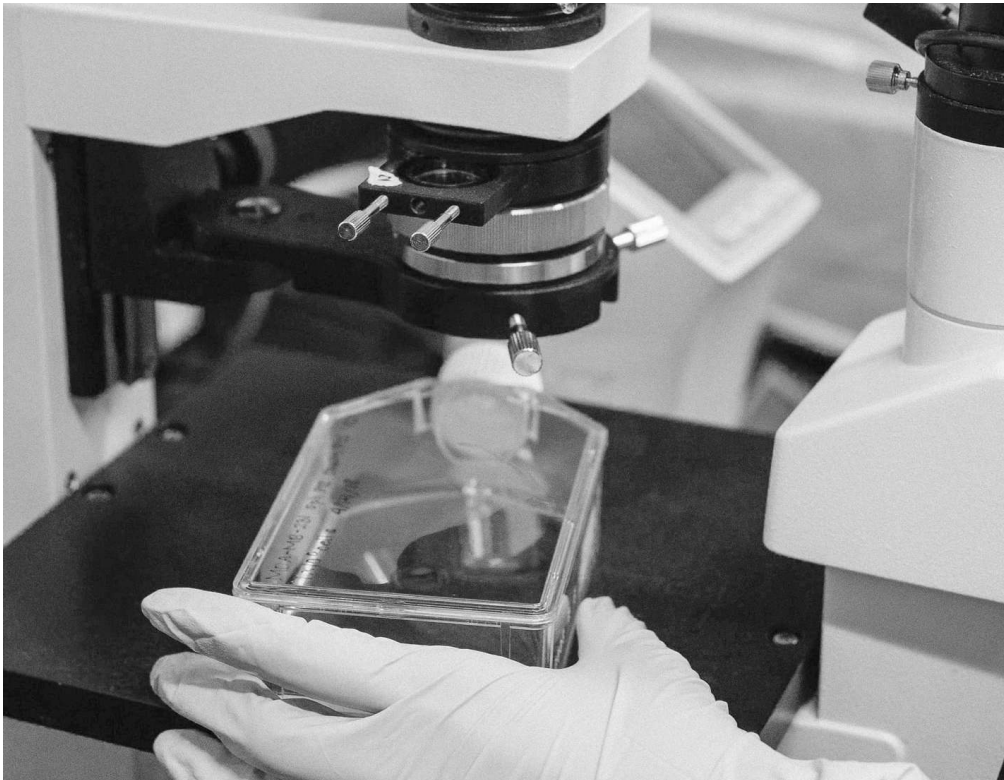
We are pleased to submit the second report to the Charity Commission for England and Wales, OHE's second since becoming a registered charity in December 2016.

Obtaining charitable status in 2016 represented an essential achievement towards OHE's development as a health economics research organisation. This milestone was achieved thanks to substantial efforts of the entire OHE team, as well as the commitment of OHE's senior leadership, Advisory Committees and Board of Trustees to OHE's mission 'to support better health care policies by providing insightful economic and statistical analyses'.

The report of 2018 demonstrates some of the ways in which OHE has worked to achieve its charitable objectives of advancing the education of the public in general/health care payers/policy makers on the subject of health economics and health care policy; and using health economics methods to produce evidence-based health policy and health care management that contributes to a more efficient and effective health care system.

A detailed anatomical model of a human heart, showing the four chambers (right and left atria and ventricles) and the major blood vessels. The model is mounted on a thin metal rod. In the background, another anatomical model is visible but out of focus.

Charitable objects



OHE's charitable objects are:

To advance the education of the public in general/health care payers/policy makers (and particularly patients and healthcare professionals) on the subject of health economics and healthcare policy.

4 Charitable objects

Activities in furtherance of this will include, in particular but not exclusively:

- promotion of evidence-based health care policy, by carrying out research on the economics of health, health care systems and the life sciences industry;
- promotion of effective and efficient use of health care resources, by advancing the use of economic approaches to support decision making; and
- the facilitation of decision making and awareness of health care policy issues, by encouraging debate and dissemination of relevant health economics research.

For the avoidance of doubt, the terms “health economics” shall mean the application of economic theory, models and empirical techniques to the analysis of decision making by people, health care providers and governments with respect to health and health care.

A black and white photograph of a desk lamp with a large, circular shade, casting a bright, circular spotlight on a wooden desk surface. The lamp is positioned in the upper right quadrant of the frame. The background is dark, and the desk surface shows wood grain and some small dark spots.

Spotlight on OHE's new
CEO Graham Cookson



5 Spotlight on OHE's new CEO Graham Cookson

OHE's new Chief Executive Officer, Graham Cookson, is an econometrician by training and experienced in the use of big data in health and life sciences research.

His research interests include the measurement and determinants of productivity in healthcare, especially labour productivity; the industrial organisation of healthcare especially tariffs and competition; real-world evidence in health economic evaluation; and the use of big data in the health and life sciences. He is best known for this work on the economics of staffing and skill mix in the English NHS, and this research was critical to

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A visiting Professor at University of Surrey, Graham joined OHE on 11 June 2018 from INRIX Inc. where he was Chief Economist and Head of Research. Prior to joining INRIX, Graham was Professor of Economics and Public Policy at the University of Surrey, and Director of Research then latterly Head of Department of Healthcare Management & Policy.

He founded the M.Sc. in Health Economics at the University of Surrey a collaboration between the School of Economics and the Department of Healthcare Management & Policy.

At the University of Surrey he was the Director of two research groups specialising in health economics research: the Leverhulme Trust funded “Better for Less” and the Centre for the Economics of Health

funded “Better for Less” and the Centre for the Economics of Health Care. His research has been funded by, inter alia, European Commission, ESRC, Department for Health, NIHR, and the Leverhulme Trust, and he has also undertaken contract research and consultancy for a range of public and private sector organisations including NICE. Graham was also involved in the establishment of the Eli Lilly Real-World-Evidence Centre at the University.

Graham is a Fellow of the Royal Statistical Society, formally Chair of the

- [View Graham's CV](#)
- [Get in touch via email](#)
- [Follow Graham on Twitter @graham_cookson](#)

Graham is a Fellow of the Royal Statistical Society, formally Chair of the Official Statistics section and the Member of the Royal Economic Society. He holds an M.A. (Hons) in Politics, Philosophy and Economics from Somerville College, Oxford; an M.Sc., and Ph.D. in Econometrics from Imperial College London, and a P.G.Cert in Academic Practice from King's College London.



Activities Undertaken
in 2018



6 Activities Undertaken in 2018

OHE undertakes research, research-related and dissemination of research activities in health economics. It is intended to be policy relevant, to support better health care policies, consistent with our mission statement.

In 2018, OHE consolidated OHE's six pre-existing research themes (i.e. Economics of Drug Development; Improving Decision Making; Incentivising Quality in Health Care; Judging Value for Money; Maximising Effectiveness of Treatment; and, Measuring Health Outcomes) into four themes within the broad field of health economics. These are set out as follows:

ECONOMICS OF INNOVATION

Advances in biomedical research and innovation in healthcare are necessary to maximise society's health. They improve quality of life of patients, reduce harm and increase healthcare efficiency. Research and innovation then, is a public health priority that policy makers need to incentivise and regulate to ensure a healthy environment that encourages industry to keep investing in R&D to produce and deliver biomedical innovation affordable to systems and accessible for patients. This research theme encompasses research on how to maximise the

effectiveness and the efficiency of R&D and biomedical innovation in both the short and long-run. Essentially the focus of the theme can be categorised into three main areas: creating incentives for R&D to address market failures; promoting competition to deliver innovation into pharmaceutical markets, and understanding the impact of regulation on the efficiency of biomedical innovation. Through this research theme activities, the OHE promotes innovation in healthcare.

INCENTIVISING QUALITY

A key objective for financially-constrained health care systems is to extract better value from the budgets available, by encouraging the delivery of high-quality health care at the lowest feasible cost. OHE's Incentivising Quality research aims to understand the role of incentives, payments and reimbursement mechanisms in achieving this objective.

Health care improvements matter if they contribute to improving productivity, or addressing key dimensions of value such as patient access and quality. OHE's Incentivising Quality theme includes research on appropriate measures of productivity in the health care sector, that recognise the importance of outcomes, rather than activity, and the trade-offs between efficiency and effectiveness.

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OHE has established an international reputation for leading innovative, ideas-driven and theoretically sound research on the measurement and valuation of outcomes.”

JUDGING VALUE FOR MONEY

Efficient decisions about the allocation of health care budgets require assessment of both the effects of health care interventions and of the value for money that they provide in delivering these effects. Decision-making processes leading to “yes” or “no” funding decisions as to what interventions are paid for should be structured and evidence-based.

OHE leads a substantial programme of research internationally relating to the development of methodologies in support of robust and systematic decision making processes in health care systems. Our research on this theme aims at contributing to the introduction of transparency in decision making; examining how best to assess the value of health care through the use of value for money hurdles including cost-effectiveness thresholds, social value judgements and structured decision-making techniques.

MEASURING AND VALUING OUTCOMES

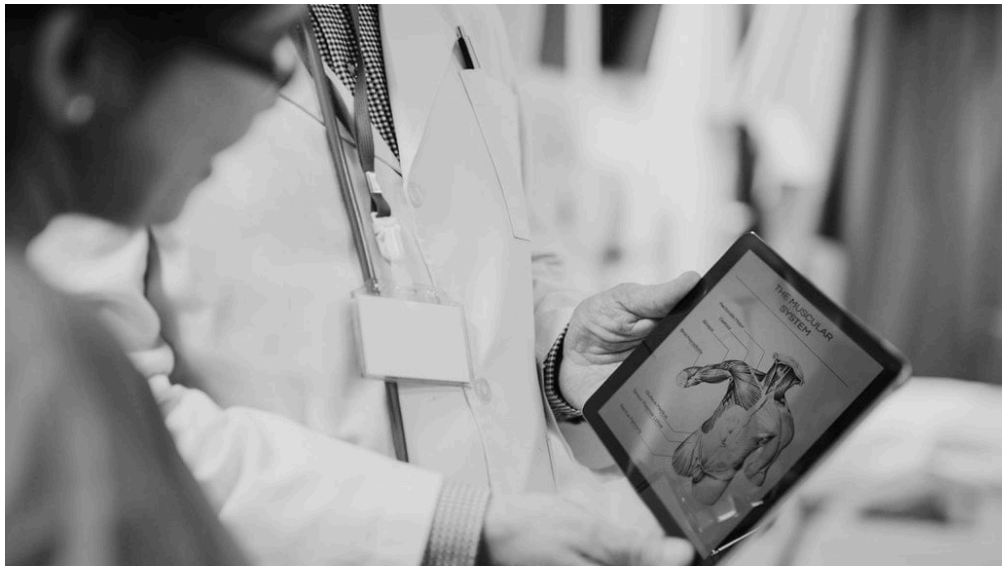
Health outcomes constitute the core for any form of evaluation in the context of health. For any scenario involving health assessment, it is essential to determine: which health outcomes matter and capture the essence of the problem; how these outcomes can be measured using methods that are robust, valid, reliable and replicable; and how they can be summarised to reflect their value to relevant groups (e.g. patients, caregivers, clinicians, society).



OHE has established an international reputation for leading innovative, ideas-driven and theoretically sound research on the measurement and valuation of outcomes. Our work on this research theme has been undertaken in many countries including the UK, Australia, Canada, China, Mexico, Ireland, New Zealand, Sweden and the United Arab Emirates. Our research in this area aims to foster outcomes-led health systems and increase our understanding of patient-relevant outcomes. Research in this area is guided by the belief that health care systems should put patient-relevant outcomes at the heart of decisions about funding and providing health and social care.

6.1 Illustration of OHE's work:

We have selected a paper that was methodologically innovative but at the same time very relevant for health policy design by discussing issues around the estimation of how much health is forgone when a new health technology is introduced.



ISSUES SURROUNDING THE ESTIMATION OF THE OPPORTUNITY COST OF ADOPTING A NEW HEALTH CARE TECHNOLOGY: AREAS FOR FURTHER RESEARCH

OHE's team Karla Hernandez-Villafuerte, Bernarda Zamora and Adrian Towse received research funding from the Association of the British Pharmaceutical Industry (ABPI) to work on this project.

The study's motivating point is the observation that funding new medical technologies has opportunity costs. From the supply-side perspective of a tax-funded health care system such as the English NHS, opportunity costs reflect health losses due to displaced medical technologies given a fixed budget constraint. Empirical methods typically used to estimate the threshold assumed observed health outcomes and health budgets reveal health system preferences. The threshold has been estimated from the average cross-sectional change in mortality as predicted by changes in the health budget, with assumptions made for quality of life gains.

In this paper the authors set out a research agenda proposing alternative approaches in three areas to improve understanding of supply side opportunity costs for the English NHS. First, it is possible that some purchasers can introduce health services by improving efficiency rather than displacing an existing activity. They set out how Data Envelopment Analysis (DEA) can be used to explore differences in commissioner efficiency. Second, to study whether health authorities (PCTs) have differences in their production function, the authors begin with a cluster analysis of PCTs.

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The authors' proposed methods provide insight as to extent of the heterogeneity of supply side opportunity costs across English health services..."

Current approaches estimate the relationship between expenditures and health outcomes using a linear regression methodology. However, if decisions made as a result of the approval of a new health technology are considered at the margin and not at the mean, and the health locations are heterogeneous, a methodology that does not focus on the mean of the health outcome is preferable.

The authors therefore explore one possible approach, which is to employ a quantile regression function which can accommodate non-linearity in the relationship between expenditures and outcomes, and variation in outcome elasticities at the margin. This can be done by estimating models for several conditional quantile functions. Thirdly, there are observable health outcomes reflecting purchaser priorities other than reducing mortality. Use of DEA to analyse multi-outcome decisions will allow a more robust estimate of the cost effectiveness threshold given the sources of local heterogeneity. The authors' proposed methods provide insight as to extent of the heterogeneity of supply side opportunity costs across English health services and how an estimate of a supply-side threshold that takes account of this might be established.

This paper was followed up by a paper in 2019 that reported the variations in the opportunity cost cost-effectiveness threshold by clinical area resulting from applying these approaches.

This paper, by Hernandez-Villafuerte, K., Zamora, B., Feng, Y., Parkin, D., Devlin, N. and Towse, A. **'EXPLORING VARIATIONS IN THE OPPORTUNITY COST COST-EFFECTIVENESS THRESHOLD BY CLINICAL AREA: RESULTS FROM A FEASIBILITY STUDY IN ENGLAND'**, has been highly discussed in the health policy and research arenas subsequently.

6.2 Projects supported by research grants won in 2018

In 2018, OHE received external funding to complete 12 research projects. These are listed as follows, organised by OHE's research programmes. Of these externally funded projects, 18% were funded by the private sector (largely the life sciences industry) and 82% were funded by the public and third sector, including higher education institutions and grant making bodies.

ECONOMICS OF INNOVATION

Innovation to tackle TB in MICs: A Plan for Action Towards a sustainable Model for MIC-fuelled Health Care Innovation 2018

Funder: Bill and Melinda Gates Foundation (BMGF)

Research project in collaboration with Centre for Global Development (CGD)

OHE investigators: Adrian Towse, Martina Garau, and Marina Rodes Sanchez.

External investigators: Kalipso Chalkidou (CGD), Rachel Silverman (CGD), Cassandra Nemzoff (CGD)

Total value: US\$800,000

Value for OHE: £211,950 (US\$300,000)

Health technology assessment for new drugs to tackle anti-microbial resistance 2018

Funder: Wellcome Trust

OHE investigators: Grace Hampson, Margherita Neri, Olga Rozanova, Adrian Towse

External investigators: Chris Henshall (OHE Visiting Fellow)

Awarded: £138,000. £97,000 (OHE)

Making outcomes-based payments a reality in the NHS 2018

Funder: Cancer Research UK

OHE investigators: Amanda Cole, Patricia Cubí-Mollá, Nancy Devlin, Paula Lorgelly, Adrian Towse

External investigators: Richard Sullivan (King's College London), RAND Europe

Awarded: £50,000

Extension to: Making outcomes based payments a reality in the NHS 2018

Funder: RAND Cancer Research UK

OHE investigators: Adrian Towse, Paula Lorgelly, Nancy Devlin, Amanda Cole, Patricia Cubí-Mollá

External investigators: Richard Sullivan (King's College London),

INCENTIVISING QUALITY

Case for and against Pricing Transparency as part of Global Procurement 2018

Funder: Centre for Global Development (CGD)

OHE investigators: Adrian Towse, Mikel Berdud; Jimena Ferraro

External investigators: Lou Garrison (OHE Senior Visiting Fellow); Emma Boswell Dean, Kalipso Chalkidou, and Cassandra Nemzoff (all Centre for Global Development (CGD)).

Awarded: £14,744

Improving Labour Productivity in Primary Care: the role of skill mix, technology and patients 2018

Funder: Health Foundation

OHE investigators: Graham Cookson, Patricia Cubi-Molla, Bernarda Zamora, Margherita Neri, Marina Rhodes Sanchez

External investigators: Simon de Lusignan (University of Surrey)

Theme(s): Incentivising quality

Grant: £499,972

OHE Income: £286,133

JUDGING VALUE FOR MONEY AND IMPROVING DECISION-MAKING

ICER Policy Summit 2018: Value, Access, and Incentives for Innovation: Policy Perspectives on Alternative Models for Pharmaceutical Rebates

Funder: Institute for Clinical and Economic Review

OHE investigators: Amanda Cole, Marina Rodés Sánchez, Adrian Towse, Bernarda Zamora

Awarded: \$22,500

SMArteN(StudentMental health Research Network) 2018

Funder: Research Councils UK

OHE investigators: Chris Sampson, Patricia Cubí-Mollá

External investigators: Nicola Byrom(King's College London), plus researchers from a variety of institutions

Awarded: £1,800

Implementing augmented cost-effectiveness analysis: challenges and next steps 2018

Funder: PhRMA Foundation

OHE investigators: Adrian Towse, Bernarda Zamora

External investigator: Lou Garrison (OHE Senior Visiting Fellow)

Awarded: \$45,000 (OHE)

MEASURING AND VALUING OUTCOMES

Drop dead: an assessment of the conceptual basis for 'death' as an anchor in health 2018 state valuation

Funder: EuroQol Research Foundation

OHE investigators: Chris Sampson, Nancy Devlin

External investigators: David Parkin (OHE Senior Visiting Fellow)

Awarded: £11,000. £9,500 (OHE)

MSc student project placement on a EuroQol-related topic 2018

Funder: EuroQol Research Foundation

OHE investigators: Patricia Cubí-Mollá, Koonal Shah

Awarded: £7,000

Generation of an EQ-5D- 5L social value set for the Mexican population 2018

Funder: AMIIF (Asociación Mexicana de Industrias de Investigación Farmacéutica; Mexican pharmaceutical industry trade association)

OHE investigators: Nancy Devlin, Koonal Shah

External investigators: Yan Feng (Queen Mary's University London), Cristina Gutierrez-Delgado (Economic Analysis Unit, Mexican Secretariat of Health), Rosa Maria Galindo-Suarez (Mexican General Health Council), Manny Papadimitropoulos (Eli Lilly and Company)

Awarded: £105,000

Development and psychometric testing of EQ-5D-5L bolt-on descriptors for vision and cognition: a study in the UK and Australia 2018

Funder: EuroQol Research Foundation

OHE investigators: Chris Sampson, Koonal Shah

External investigators: Phil Haywood, Brendan Mulhern (both University of Technology Sydney), Mike Herdman (OHE Visiting Fellow), Bas Janssen (EuroQol Office), Justine Schneider (University of Nottingham), Clare Thetford (University of Central Lancashire)

Awarded: 125,000 euros. 70,000 euros (OHE)

6.3 Publications 2018

OHE publications

OHE releases several in-house and external publications throughout the year in order to facilitate decision making and awareness of health care policy issues, thereby helping to meet its charitable objectives.

OHE publications published in 2018 had been peer reviewed by at least one member of the OHE Editorial Panel. The OHE Editorial Panel is a group of eminent scholars responsible for ensuring the quality, value and intellectual rigour of OHE's publications. A full list of members can be found [here](#).

OHE launched 23 in-house publications in 2018 (seven Research Papers, nine Consulting Reports, three Seminar Briefings, three Briefings and one Monograph). All OHE publications, dating back to 1962, are freely available to download [here](#) and listed as follows:

NHS Agency Staffing and the Impact of Recent Interventions

Mullin, C.
Seminar Briefing
January 2018

Review of CRA's Report "Assessing the Economic Impacts of Changing Exemption Provisions During Patent and SPC Protection in Europe"

Mestre-Ferrandiz, J., Berdud, M., and Towse, A.
Consulting Report
January 2018

Why are Mortality Rates Rising for Middle-Aged White Non-Hispanic Americans? Could it Happen in Europe?

Case, A., and Deaton, A.
Monograph
March 2018

Barriers to Uptake of Minimal Access Surgery in the United Kingdom

Cole, A., O'Neill, P., Sampson, C., and Lorgelly, P.
Consulting Report
March 2018

**Appraising Ultra-Orphan Drugs: Is Cost-Per-QALY Appropriate?
A Review of the Evidence**

Towse, A. and Garau, M.
Consulting Report
March 2018

**Real World Evidence for Coverage Decisions: Opportunities and
Challenges**

Hampson, G., Towse, A., Dreitlein, B., Henshall, C. and Pearson, S.
Research Paper
March 2018

**Understanding the Context, Selecting the Standards: A Framework to
Guide the Optimal Development and Use of Real-World Evidence for
Coverage and Formulary Decisions**

Pearson, S., Dreitlein, B., Towse, A., Hampson, G. and Henshall, C.
Research Paper
March 2018

New Methods for Analysing the Distribution of EQ-5D Observations

Zamora, B., Parkin, D., Feng, Y., Bateman, A., Herdman, M., and
Devlin, N.
Research Paper
April 2018

**The UK Biotech Sector and Brexit: Past Performance and Future
Prospects**

Owen, G and Hopkins, M.
Seminar Briefing
April 2018

**The Debate on Indication-Based Pricing in the U.S. and Five Major
European Countries**

Towse, A., Cole, A., and Zamora, B.
Consulting Report
May 2018

**A Critique of the Paper “The Estimated Costs of Production and
Potential Prices for the World Health Organization Essential Medicines
List”**

Towse, A., Hernandez-Villafuerte, K. and Shaw, B.
Consulting Report
May 2018

**Quality of Life in Long-term Cancer Survivors: Implications for Future
Health Technology Assessments in Oncology**

Cubi-Molla, P., Mott, D., Shah, K., Herdman, M., Summers, Y. and Devlin, N.
Consulting Report
June 2018

Economics of Innovative Payment Models Compared with Single Pricing of Pharmaceuticals

Cole, A., Towse, A., Lorgelly, P., and Sullivan, R.
Research Paper
July 2018

Establishing a Reasonable Price for an Orphan Drug

Berdud, M., Drummond, M.F., and Towse, A.
Research Paper
July 2018

R&D, Competition and Diffusion of Innovation in the EU: The Case of Hepatitis C

Berdud, M., Garau, M., Neri, M., O'Neill, P., Sampson, C.
and Towse, A.
Research Paper
July 2018

Issues Surrounding the Estimation of the Opportunity Cost of Adopting a New Health Care Technology: Areas for Further Research

Hernandez-Villafuerte, K., Zamora, B. & Towse, A.
Research Paper
August 2018

The Impact of New Medicines in the NHS: 70 Years of Innovation

Sampson, C., O'Neill, P. and Lorgelly, P.
Consulting Report
August 2018

Measurement of Medicines Expenditure in the Context of the 2014-18 PPRSs

Ferraro, J., O'Neill, P. and Towse, A.
Consulting Report
August 2018

Private Provision of Publicly Funded Health Care: The Economics of Ownership

Chalkley, M and Sussex, J.
Briefing
September 2018

Securing Funds for the Proposed NHS Multi-year Funding: The Feasibility of Using a Hypothecated Tax

Timmins, N.
Seminar Briefing
October 2018

OHE Annual Report to the Charity Commission for the Year 2017

The Office of Health Economics

Briefing

November 2018

Multi-Indication Pricing (MIP): Practical Solutions and Steps to Move Forward

Neri, M., Towse, A. and Garau, M.

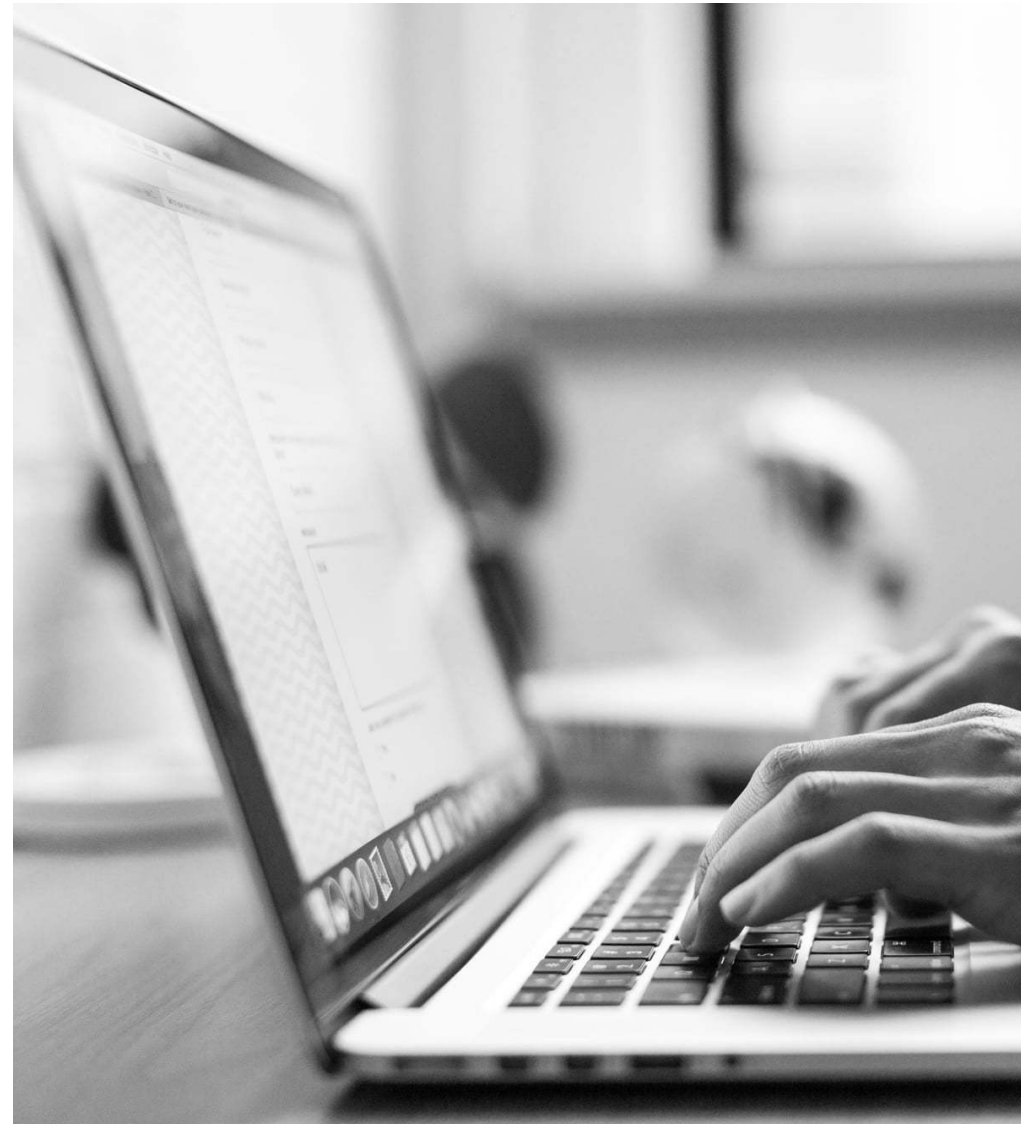
Briefing

December 2018

Legal Barriers to the Better Use of Health Data to Deliver Pharmaceutical Innovation

Cole, A. and Towse, A.

In addition to the publications listed on the following pages, OHE also publishes **Consulting Reports** and non-peer reviewed publications such as **Seminar Briefings** also available in our website.



External publications by OHE authors

Research and commentary by OHE team members appear regularly in external publications. See the following pages for a list of 41 publications from 2018. Note that some of these publications may have been published as 'early view' articles in 2017 and were subsequently published in full in 2018.

Barry, L., Hobbins, A., Kelleher, D., Shah, K., **Devlin, N.**, Ramos Goñi, J.M. and O'Neill, C., 2018. Euthanasia, Religiosity and the Valuation of Health States: Results from an Irish EQ5D5L Valuation Study and their Implications for Anchor Values. *Health and Quality of Life Outcomes*, 16(152). DOI: <https://doi.org/10.1186/s12955-018-0985-...>

Bottomley, A., Pe, M., Sloan, J., Basch, E., Bonnetain, F., Calvert, M., Campbell, A., Cleeland, C., Cocks, K., Collette, L., Dueck, A.C., **Devlin, N.**, et al. 2018. Moving Forward Toward Standardizing Analysis of Quality of Life Data in Randomized Cancer Clinical Trials. *Clinical Trials*, p.1740774518795637. DOI: <https://doi.org/10.1177/1740774518795637>.

Cole, A., Shah, K., Mulhern, B., **Feng, Y. and Devlin, N.**, 2018. Valuing EQ-5D-5L Health States 'In Context' Using a Discrete Choice Experiment. *European Journal of Health Economics*, 19(4), pp.595-605. DOI: <https://doi.org/10.1007/s10198-017-0905-...>

Cookson, G. and Laliotis, I., 2018. Promoting normal birth and reducing caesarean section rates: An evaluation of the Rapid Improvement Programme. *Health Economics*, 27(4), pp.675-689.

Cubí-Mollá, P., Shah, K., Garside, J., Herdman, M. and **Devlin, N.**, 2018. A Note on the Relationship Between Age and Health-related Quality of Life. *Quality of Life Research*, pp. 1-5. DOI: <https://doi.org/10.1007/s11136-018-2071-5>.

Cubí-Mollá, P., Shah, K. and Burström, K., 2018. Experience-based Values: A Framework for Classifying Different Types of Experience in Health Valuation Research. *The Patient*, 11(3), pp.253-270. DOI: <https://doi.org/10.1007/s40271-017-0292-...>

Danzon, P., Drummond, M., **Towse, A.** and Pauly, M., 2018. Objectives, Budgets, Thresholds, and Opportunity Costs—A Health Economics Approach: An ISPOR Special Task Force Report. *Value in Health*, 21(2), pp.140-145. DOI: <https://doi.org/10.1016/j.jval.2017.12.0...>

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6.4 OHE's seminar programme

As part of its charitable objectives, OHE aims to stimulate debate and dissemination of health economics research through its seminar programmes. In 2018, OHE organised eight **lunchtime seminars**. OHE also held its flagship **Annual Lecture** in June and organised several panels at the ISPOR European Congress in November.

OHE ANNUAL LECTURE, 2018

The 2018 OHE Annual Lecture '**Is There an Economic Case for Investing in the NHS? Really?**' was given by **Professor Peter Smith**, Professor of Global Health Economics at York and Emeritus Professor of Health Policy at Imperial. He graduated in mathematics from the University of Oxford. His first academic post was in the public health department at the University of Cambridge. He worked at the University of York for 25 years before moving to Imperial College Business School. Peter Smith is now back at the Centre for Health Economics and contributes to projects in global health. His main research interests are in 'the finance and efficiency of health systems, with a special emphasis on the link between research evidence and policy'. He has advised in numerous UK governmental bodies and is the chair of the NHS Advisory Committee on Resource Allocation.

Equally, he has counselled numerous overseas governments and international agencies, including the World Health Organization, the

International Monetary Fund, the World Bank, the Inter-American Development Bank, the Global Fund, the European Commission and the Organization for Economic Cooperation and Development.

The OHE 2018 Annual's Lecture reflected on the difficulty of persuading sceptics that the NHS is a good use of public finance given the financial environment. The UK government's decision to increase NHS England's budget by £20bn in real terms by 2023 is widely regarded as not enough by Think Tanks, as well as by the National Audit Office and the Office for Budget Responsibility. Yet in the UK and elsewhere, there is a widely held view – particularly in finance ministries and some sections of the media – that health systems such as the NHS are 'black holes', constantly demanding increased funding without concomitant returns to society.

The £20bn has met resistance, notably from the UK Treasury, which believes the NHS could be more efficient and that there will be little to see from the £20bn. Professor Peter Smith argued that an economic case can be made for investment in the NHS but that it requires changes in the way the NHS thinks about itself. He debated the validity of the scepticism about "black holes", and offered a framework for a more informed debate about the contribution of the NHS to national wellbeing. He examined the objectives of HM Treasury, and assessed the extent to which increased NHS funding can promote such objectives.

OHE LUNCH TIME SEMINARS, 2018

OHE hosted eight lunch time seminars in 2018 on subjects that ranged from NHS workforce and patients' benefits, to quality of life measurement and pharmaceutical regulation.

Providing Health Care to NHS Patients: How Much Does Ownership Matter? Martin Chalkley, Centre for Health Economics at the University of York, and Jon Sussex, RAND Europe. Wednesday, 28 February 2018.

This seminar addressed an important and timely subject as policymakers consider the role of the private sector in the NHS, with its various implications for care pathways and patient outcomes.

Valuing Children's Health for Economic Evaluation

Oliver Rivero-Arias, NPEU, University of Oxford. Event date: Thursday, 29 March 2018.

Valuing health states in children is a contentious issue – particularly the question of whether children's own preferences should be taken into account. This seminar outlined the importance of different methods and considered some of the ways in which these could influence HTA decisions for paediatric medicines.

How Can We Evaluate the Cost-effectiveness of Health System Strengthening? A Platforms Perspective Peter C. Smith, Imperial College. Monday, 18 June 2018.

This seminar discussed issues around the efficiency of investments in the health service, exploring the role of different services in strengthening the health system.

Is Hypothecation the Way to Raise the Money for the "Multi-Year" Funding Settlement that the NHS has been Promised? Nicholas Timmins, King's Fund and the Institute for Government. Wednesday, 25 July 2018.

The notion of a hypothecated tax to fund the NHS is one that regularly returns to the health policy discourse. It is important to understand the implications of alternative funding mechanisms for the NHS, and how this might affect access to services. This seminar provided insights into the potential benefits and disadvantages of hypothecated tax.

The People's Prescription - Re-imagining Health Innovation to Deliver Public Value. Mariana Mazzucato, UCL Institute for Innovation and Public Purpose. Friday, 28 September 2018.

In this seminar, Prof. Mariana Mazzucato outlined the key problems of the current health innovation system and presented, with examples, the principles that would underpin a mission-oriented approach to driving health innovation, including pharmaceuticals, in the interest of the public.

Early Experience with HTA of Gene Therapies in the US: Pricing and Paying for Cures. Steven Pearson, Founder and President of the Institute for Clinical and Economic Review (ICER).: Monday, 22 October 2018.

Dr Pearson discussed his experience – as president of ICER – with HTA of gene therapies in the US, including options for 'value-based' prices.

An Overview of the US National Institutes of Health (NIH) Patient Reported Outcomes Measurement Information System (PROMIS®) and the PROMIS-Preference (PROPr) Scoring System. W Janel Hanmer, Assistant Professor of Medicine, University of Pittsburgh Medical Director, UPMC Patient Reported Outcomes Center. Wednesday, 31 October 2018.

Dr Hanmer discussed the PROMIS health outcomes scoring system, which is growing in importance outside of the US as a basis for capturing the value of health care.

Price Regulation of Generics and Drug Shortages. Dr. Aslam Anis, The University of British Columbia, School of Population and Public Health. Tuesday, 27 November 2018.

Price-cap regulations affect both prices and supply of medicines. Price-caps set too high can affect negatively the affordability of medicines, while price-caps set too low can erode companies' revenues and produce drug shortages because firms neither enter nor exit the market. It is useful for ABPI to understand the consequences of price-cap regulations and when they can be well-designed for all stakeholders' benefit.

Besides the Annual Lecture and the Lunchtime Seminars, OHE holds regular Brown Bag Seminars in which internal staff or invited speakers present work in progress or potential projects for joint grant applications.

6.5 External presentations and dissemination activities

Following up from 2017, OHE team members presented health economics research and economics analysis of health policy issues to a very wide range of audiences in 2018. OHE members gave an impressive number of presentations, 94 in total.

OHE staff presented at all major international health economics conferences (International Health Economics Association (iHEA); International Society for Pharmacoeconomics and Outcomes Research (ISPOR)) and at the principal health economics and outcomes conferences in the UK (e.g. Health Economists' Study Group (HESG)), as well as giving invited presentations at a number of other events such as advisory boards, lectures, seminars, workshops, and assorted meetings.

A selection of some of these are provided as follows, for illustrative purposes, we summarise a few:

OHE at the EuroQol Academy Meeting 2018: Several members of the OHE team gave presentations and chaired sessions at the third EuroQol Academy Meeting. OHE's involvement in the EuroQol Group and attendance at these meetings strengthens our expertise in patient-reported outcomes, an area of great interest to ABPI and one of OHE's principal research programmes.

ABPI members regularly commission EQ-5D-related work from OHE. Issues over whether NICE and the Department of Health will recommend the five-level version of the EQ-5D be used instead of the three-level version are of considerable relevance to ABPI and its members, and OHE researchers played an active role in discussing research relevant to this issue.

OHE members gave an impressive **94** presentations



OHE at HESG Winter 2018: OHE team members played an active role at the Health Economists' Study Group (HESG) Meeting, City, University of London, 10-12th January 2018. We had one paper being discussed, discussed others' papers, and chaired sessions. Members of the OHE team were also available to answer questions about the wider OHE research programme.

Other presentations:

EvaluAES 7th Annual Workshop: Promoting Evidence-based Health Care Policy in Spain. OHE's Patricia Cubi-Molla joint with Laura Vallejo-Torres (University College London and University of Las Palmas de Gran Canaria) coordinated a special interest group on the evaluation of health policies and health care services.

OHE at ISPOR 2018: The theme for ISPOR 2018 is Real-world Evidence, Digital Health, and the New Landscape for Health Decision Making. OHE's Adrian Towse, Paula Lorgelly, and David Mott contributed to the programme.

- **Short course: Risk Sharing / Performance-Based Arrangements for Drugs and Other Medical Products.** As in previous years, Adrian Towse presented a short course on the theory and practice of payment schemes with Louis Garrison and Josh Carlson from the University of Washington.

- **Issue panel: Incorporating Quantitative Patient Preference Information into Healthcare Decision-making Processes: Is Health Technology Assessment Falling Behind?** Paula Lorgelly moderated an issue panel, with panellists including OHE's David Mott; Brett Hauber, RTI Health Solutions; and Deborah Marshall, University of Calgary. The panellists discussed whether there are opportunities to increase the use of quantitative patient preference information in HTA.
- **Poster: Comparing the EQ-5D-3L and EQ-5D-5L in a Cohort of Cancer Patients.** Paula Lorgelly presented this poster – co-authored with OHE's Patricia Cubi-Molla; Mark Pennington, King's College London; and Richard Norman, Curtin University – exploring the implications of using the EQ-5D-5L with cancer patients.



OHE staff presented at all major international health economics conferences (International Health Economics Association (iHEA); International Society for Pharmacoeconomics and Outcomes Research (ISPOR)) and at the principal health economics and outcomes conferences in the UK."



OHE at HTAi 2018: Adrian Towse, Koonal Shah, Grace Hampson, and Chris Sampson travelled to Vancouver, Canada, to participate in HTAi 2018 and to present some of OHE's work. The theme for this year's conference is *Strengthening the Evidence-to-Action Connection*.

- **Panel: How Should We Value and Pay for New Antibiotics?** This session explored how the benefits of antibiotics can best be captured in HTA, and how we should pay for them when their value may depend on restricting their use. Adrian Towse, Chris Henshall, Taimur Bhatti, Judith Glennie, and Monika Schneider were panellists.
- **Sponsored Symposium: Clinical, Organizational and Policy Opportunities to Tackle In-Hospital Surge of AMR.** Hospitals and intensive care units are recognised as ground for the possible development of antimicrobial resistance (AMR) and hospital-acquired infections (HAIs). Adrian Towse, Americo Cicchetti, Iñaki Gutiérrez-Ibarluzea, Roman Kozlov, Adrian Pana, and Davide Croce explored potential initiatives in this symposium sponsored by Angelini.
- **Oral Presentation: Optimizing the use of RWE in HTA: Lessons From the ICER Summit.** Grace Hampson presented recommendations on the roles that stakeholder groups can play in overcoming challenges associated with using real-world evidence.
- **Oral Presentation: Optimising Risk-Based Screening: The Case of Diabetic Eye Disease.** In this presentation, Chris Sampson described the development of a decision model used to evaluate the cost-effectiveness of risk-based screening for diabetic retinopathy and explored the potential for individualised cost-effectiveness analysis.

- **Poster: Long-Term Evaluation of Broad Mental Health Interventions: A Review** Chris Sampson discussed the challenges and barriers to research in the context of broad mental health interventions and make recommendations for future strategies.
- **Panel: From Evidence to Action When People Disagree: Societal Values and Provision of End of Life Medicines.** Koonal Shah joined Rachel Baker and Ailsa Brown on this panel to reflect on empirical findings and raised questions for evidence-based policy on the provision of end of life medicines.
- **Vignette: Developing a Value Set for the EQ-5D-Y to Support its Use in HTA.** In this presentation, Koonal Shah summarised the challenges and ongoing work in the development of a value set for the EQ-5D-Y in the UK.
- **Panel: Multi-stakeholder Dialogues Addressing Needs, HTA Requirements and Good Practices in Emerging Countries.** Adrian Towse joined this panel with Alicia Granados, Sarah Garner, and Andre Rivire to explore the impact and actions emerging from international discussions about the role of HTA.
- **Panel: Building Bridges Not Walls: Can We Develop Sustainable and Sharable Cost-Effectiveness Models?** Chris Sampson, Deborah Marshall, Stirling Bryan, and Steven Pearson explored and identified opportunities, barriers, and future strategies for developing and implementing key infrastructure to support collaborative and transparent cost-effectiveness models.

OHE at HESG, AES and PROMs of the Summer of 2018

- There were multiple presentations at the HESG Summer 2018 conference, at the Spanish Association of Health Economics (AES) and PROMS that can be found at [here](#).

OHE at EuHEA 2018: Graham Cookson, Paula Lorgelly, Koonal Shah, Mikel Berdud, and Margherita Neri travelled to Maastricht, The Netherlands, to participate in EuHEA 2018 and to present some of OHE's research. The theme for this year's conference is 'Shaping the Future: The Role of Health Economics'.

- **Parallel sessions 1: Economics of the Pharmaceutical Market** This session includes a presentation by OHE's Mikel Berdud on establishing a reasonable price for an orphan drug.
- **Parallel sessions 2: Economic and Non-Economic Factors Affecting the Development and Access to Pharmaceutical Innovation in Europe: Learning from Direct Acting Antivirals (DAAs) for Hepatitis-C.** OHE's Graham Cookson chaired this session, which includes two presentations of OHE's research. Mikel Berdud presented on 'R&D, competition and diffusion of innovation in EU: the case of Direct Acting Antivirals (DAAs) for hepatitis C'. Margherita Neri presented on 'The importance of non-economic factors for the access and uptake of hepatitis C treatments in Europe'.

- **Parallel sessions 3: Involvement of Patient and Public in Health Care Valuation.** This session included a presentation by OHE's Paula Lorgelly, titled 'The value of targeted sequencing in advanced cancer: results of a DCE to elicit the public's preferences'.
- **Parallel sessions 5: Health State Validation Methodology.** Paula Lorgelly presented on the subject of EQ-5D-3L and EQ-5D-5L in a cohort of cancer patients.
- **Parallel sessions 7: Challenges in Utility Measurement for Youth.** This session includes a presentation by OHE's Koonal Shah on the subject of anchoring latent scale values for the EQ-5D-Y.

Presentations from ISPOR and HTAi 2018: The theme for ISPOR Europe 2018 was New Perspectives for Improving 21st Century Health Systems. OHE's Adrian Towse, Graham Cookson, Nancy Devlin, Martina Garau, Koonal Shah, Amanda Cole, Margherita Neri, and Chris Sampson attended the conference and contributing to the programme in a numerous ways (2 short courses, 2 educational symposia, 4 issue panels and 3 posters) which are described [here](#).



6.6 Selected examples of core funded projects

We have selected the following core funded research projects as examples of work that has been possible thanks to the ABPI annual research grant and the surplus from externally funded projects. As in 2017, these projects demonstrate that OHE's research promotes the effective and efficient use of health care resources by improving the application of economic methodology to sustain health care decision making.

CANCER SURVIVORSHIP BURDEN

A Core Funded Research project was the basis of the article that OHE's Paula Lorgelly and Margherita Neri published in a special issue of the *Journal of Cancer Policy* originated. The article reviews the current evidence on estimates of cancer survivorship burden and presents methodology to inform future estimates. With more and more people surviving cancer, it is important to estimate the economic burden that survivorship places on these individuals, as well as on their friends, family, carers and the wider society. Nonetheless, few studies at present have estimated the burden of cancer survivorship considering all the elements of burden and using a societal perspective.

The economic burden of the disease is the sum of the monetary value of the resources associated with treating the disease plus the cost of the lost opportunities due to the disease. As shown in the paper, for the case of

cancer, the cost components associated with the disease burden can be either direct or indirect. The article illustrates the type of 'payer' who usually faces each component of the burden including the Health-related quality of life (HRQoL), an important burden to consider for both survivors and caregivers.

Among the available evidence on indirect costs of cancer burden, the authors found that: productivity loss is higher among individuals aged between 18 and 64, when patients experienced cancer at young ages and in patients with other comorbidities; the value of caregiving can be of a similar magnitude to direct medical cancer costs; physical HRQoL tends to be lower among cancer survivors who were diagnosed in childhood. Indirect costs are more difficult to estimate than the direct costs incurred by the health care system, particularly due to issues around data collection. However, they are no less important. A number of challenges include:

- Difficulty identifying and sampling survivors who are not receiving active treatment, and identifying and sampling their caregivers;
- Difficulty linking self-reported data on indirect cost and HRQoL with direct healthcare costs, while accounting for the substitution effect (i.e. informal care instead of professional care).

Possible improvements to the estimation of survivorship burden include:

- Considering a control sample of patients without a history of cancer, in order to identify the marginal burden of disease;
- Considering the variations of burden across stage and site of cancer, to reflect the heterogeneity of the disease.

The authors conclude that appropriately designed burden of illness studies, consistent with the taxonomy of the cost components, which encompasses improvements in estimation methodologies, will be pivotal to support policymakers in the allocation of resources and establish the future research agenda.

TRANSPARENCY IN MODELLING: WHAT, WHY, WHO, AND HOW?

This project was lead by Chris Sampson with collaborations of Renée Arnold, Arnold Consultancy & Technology, LLC, Stirling Bryan, University of British Columbia, Philip Clarke, University of Oxford Sean Ekins, Collaborations Pharmaceuticals Inc. Anthony Hatswell, Delta Hat, Neil Hawkins, University of Glasgow, Sue Langham, Maverex Limited, Deborah Marshall, University of Calgary, Mohsen Sadatsafavi, University of British Columbia, Will Sullivan, BresMed Health Solutions, Ed Wilson, University of Cambridge, Tim Wrightson, Springer.

“

The research outlined a taxonomy of the different manifestations of transparency, including reporting standards, reference models, collaboration, model registration, peer review, and open source models.”

The research aimed to review and summarise the discourse to date, drawing on collective experience. It outlined a taxonomy of the different manifestations of transparency, including reporting standards, reference models, collaboration, model registration, peer review, and open source models. Further, the authors map out the role and incentives for the various stakeholders in each case, including industry, research organisations, publishers, academics, health technology assessment (HTA) agencies, and policymakers. They also go on to outline the anticipated advantages and disadvantages of each manifestation of transparency and the perceived barriers and facilitators to greater transparency. These are considered with respect to the different stakeholders and with reference to issues including intellectual property, legality, standards, quality assurance, code integrity, HTA processes, incentives, funding, software, access and deployment options, data protection, and stakeholder engagement.

Thus, for each manifestation of transparency, the authors discuss the 'what', 'why', 'who', and 'how': their meaning; why the community might (or might not) wish to embrace them; whose engagement as stakeholders is required; and how relevant objectives might be realised. They identify current initiatives aimed to improve transparency to exemplify efforts in current practice and for the future. Further, a research agenda is proposed.

This research project generated a publication accepted in August of 2019, 'Transparency in decision modelling: what, why, who and how?'

Pharmacoeconomics DOI: 10.1007/s40273-019-00819-z , joint with Arnold, R., Bryan, S., Clarke, P., Ekins, S., Hatswell, A., Hawkins, N., Langham, S., Marshall, D., Sadatsafavi, M., Sullivan, W., Wilson, E.C.F., and Wrightson, T.

AFFORDABILITY/ PAYING FOR CURES

This Core Funded Research project on *Affordability/Paying for Cures*, led by Adrian Towse, Grace Marsden and with the collaboration of various external co-authors for different parts (notably from CMPT and ICER), led to four papers published in 2018 (included in the list of publications) and several other outputs such as an invited paper for a themed issue in *Value in Health*, Analysis of uncertainty in 'cures' – authored by Adrian Towse and Liz Fenwick (Pharmerit); a manuscript submitted to *Orphanet Journal of Rare Diseases*; and an Editorial: Zamora, B. and Garau, M. 2018. Policymakers Should Do More to Ensure Timely Access to Orphan Medicinal Products. *The Government Gazette*, 2, pp. 36.

6.7 Pro bono activities

OHE engages in a wide variety of pro bono activities, including participation on advisory boards, serving on committees, supervising student placements, examining doctoral research theses, and undertaking reviews.

In 2018, OHE staff have served on several external boards and committees and held ten visiting positions at Universities and prestigious think-tanks.

OHE STAFF MEMBERSHIP OF ADVISORY PANELS, BOARDS AND COMMITTEES

- Department of Health – a NIHR-funded steering committee – **Graham Cookson**
- EvaluAES (supported by the Spanish Health Economic Association): Coordinator of special interest group on the evaluation of health policies and health care services – **Patricia Cubí-Mollá**
- EuroQol Group: co-chair, 3L/5L Taskforce – Nancy Devlin• Alberta PROMs and EQ-5D research and support unit, Canada: Chair of the Scientific Advisory Committee – **Nancy Devlin**
- Private Healthcare Information Network: Non-Executive Director – **Nancy Devlin**
- ISPOR: Management and Advisory Board – **Nancy Devlin**
- ISPOR: President Elect – **Nancy Devlin**
- National Quality Register Center, Stockholm: Scientific Advisory Committee – **Nancy Devlin**
- Member Engagement Projects for a new ISPOR Special Interest Group on Open Source Models – Chair – **Chris Sampson**
- NICE: Clinical Guidelines Updates Standing Committee – **Grace Hampson**
- iHEA: Special interest group on the economics of obesity – **Grace Hampson**
- HESG: Joint National Organiser – **Paula Lorgelly**
- EuroQol Group: Co-chair of Scientific Plenary – **Koonal Shah**
- EuroQol Group: Executive Committee – **Koonal Shah**
- MRC: Advisory group for Extending the QALY project – **Koonal Shah**
- iHEA: Special interest group on the economics of palliative and end-of-life care– **Koonal Shah**
- ISPOR: US Value Frameworks Special Task Force – **Adrian Towse**
- ISPOR: Board of Directors Past President – **Adrian Towse**
- UK Pharmacogenetics & Stratified Medicine Network: Member – **Bernarda Zamora**

VISITING POSITIONS FOR OHE STAFF

- School of Economics and Public Policy, University of Surrey – **Graham Cookson**
- Department of Economics, City, University of London – Honorary Senior Research Fellow – **Patricia Cubí-Mollá**
- Department of Economics, City, University of London – Honorary Professor – **Nancy Devlin**
- School of Health and Related Research, University of Sheffield – Honorary Professor – **Nancy Devlin**
- University of Sussex – Associated Faculty - **Grace Hampson**
- King's College London – Visiting Professor – **Paula Lorgelly**
- Monash University – Adjunct Associate Professor – **Paula Lorgelly**
- London School of Economics, Visting Professor – **Koonal Shah**
- School of Health and Related Research, University of Sheffield – Honorary Research Fellow – **Koonal Shah**
- London School of Economics – Visiting Professor – **Adrian Towse**
- Nuffield Department of Population Health, University of Oxford – Senior Visiting Fellow – **Adrian Towse**

OHE staff completed a total of **48 peer reviewing tasks** between 1 January and 31 of December of 2018, including reviews of journal manuscripts, grant applications and conference abstracts.

Finally, during 2018, OHE supervised **one MSc student** – Simon Brassel (London School of Economics; directed by Patricia Cubí-Mollá) who was subsequently hired.



Achievements



7 Selected examples of achievements and performance

This section aims at presenting selected illustrations of OHE's achievements and successes consistent with our charitable objectives.

7.1 Notable successes

In 2018, OHE was awarded three important grants and achieved remarkable progress research-wise, which we present here.

Grants Examples

OHE, together with RAND Europe and King's College London was awarded a research grant from Cancer Research UK to help develop a new model of paying for cancer drugs on the basis of the outcomes they achieve. This project was the first stage of a pilot scheme to establish outcome-based reimbursement in the NHS, and is a collaboration with the Greater Manchester Health and Social Care Partnership.

OHE and the Center for Global Development successfully secured a grant from the Bill and Melinda Gates Foundation (BMGF) to look at models to incentivise R&D for global health from middle-income countries (MICs).

The focus will be on new drugs for TB, but the intention is to develop a sustainable model that can be used in other diseases where there is a significant MIC burden but not enough high-income country burden to make a 'normal' commercial market.

Finally, at the end of 2018, the Health Foundation awarded a large research grant to OHE titled 'Improving Labour Productivity in Primary Care: the role of skill mix, technology and patients.' Using routinely collected data, this study will develop new measures for labour productivity in primary care as well as examining its variability and determinants, in particular skill mix, technology and patient mix. At the end of the project, reproducible algorithms for the routine measurement of productivity will be released.

The project represents a collaboration between the Office of Health Economics – experts in the measurement of productivity and led by Prof. Graham Cookson who produced the NICE evidence review for the safe staffing guidelines – the RCGP's Research and Surveillance Centre who collect twice weekly patient level data from 256 GP practices.

“

Projects centre around incentivising research and development as a means of addressing market failure.”

Routinely collected patient level data will be supplemented by primary data collection at the practice level on staffing and related inputs. Practices participating in the RCGP surveillance network commit to completing these ad hoc data requests.

On the following pages, please find a summary of notable successes organised by research theme:

Economics of innovation

Lead: Paula Lorgelly

This research theme was created, at the suggestion of the Research and Policy Committee in 2017, as the merger of the previous Maximising Effectiveness of Treatment and Economics of Drug Development programmes. Essentially the projects under the remit of this theme centre around incentivising research and development as a means of addressing the issue of market failure. It focuses on both innovations new to the market and innovations which may come to the market (i.e. the pipeline). This means research projects could focus on either early access models, innovative pricing models and risk sharing schemes or open research collaborations and public/private research funding models.

NOTABLE SUCCESSES AND ACHIEVEMENTS:

- During 2018, together with the Centre for Global Development, OHE secured funding from the Bill and Melinda Gates Foundation funding to consider innovations to tackle TB in middle income countries.
- OHE, together with the Center for Global Development, has successfully secured a grant from the Bill and Melinda Gates Foundation (BMGF) to look at models to incentivise R&D for global health from middle-income countries (MICs). The focus will be on new drugs for TB, but the intention is to develop a sustainable model that can be used in other diseases where there is a significant MIC burden but not enough high-income country burden to make a 'normal' commercial market.
- OHE undertook two projects on reimbursement models: one, funded by IQVIA, considered innovative payment models as an alternative to single prices; the other, funded by Cancer Research UK, considers outcomes based reimbursement in cancer – this is a collaboration with RAND Europe and King's College London.
- As a result of a consulting project for ABPI in 2016, Paula Lorgelly wrote an invited commentary for Pharmacoconomics Open entitled 'Impact of Brexit on Pharmaceuticals and HTA'. It was one of the top five most downloaded articles in the first six months of 2018, and had 4.4k downloads by the end of 2018. The paper also resulted in Paula giving plenary talks at HESG in Bristol in June 2018 and the Mt Hood Diabetes Challenge in Dusseldorf in October 2018.



Incentivising quality

Lead: Graham Cookson, taking over from Yan Feng

Despite of being the smallest research theme, Incentivising Quality secured some notable achievements:

NOTABLE SUCCESSES AND ACHIEVEMENTS:

- This research theme has a disproportionate level of externally funded research given its size.
- In 2018, the theme started a large National Institute for Health Research funded project from the Policy Research Programme that investigated the 'Effectiveness and Value for Money of Prescribed Specialised Services Commissioning for Quality and Innovation (CQUIN) interventions 2016/17 to 2018/19'. The project progressed timely.
- A project funded by the EuroQol Research Foundation, 'Understanding the relationship between clinical quality of primary care and patient self-reported health on the EQ-5D in England' was completed. A paper arising from that project was presented at the EuroQol Plenary Meeting and submitted for journal publication.
- Throughout 2018, work continued on the Health Foundation and Imperial College London funded project that investigating the impact of introducing Any Qualified Providers on hospital performance in England. The project suffered from a number of delays, most critically with respect to accessing Hospital Episode Statistics data but managed to proceed successfully.
- As mentioned, at the end of 2018 the Health Foundation awarded a large research grant to OHE titled 'Improving Labour Productivity in Primary Care: the role of skill mix, technology and patients.'

Judging value for money & improving decision-making

Lead: Adrian Towse

This theme was particularly successful in 2018.

NOTABLE SUCCESSES AND ACHIEVEMENTS:

- The “clinical threshold” research project funded by ABPI was completed, which is summarised in a standalone case study.
- Participation by Adrian Towse in (i) the ISPOR US Value Task Force, leading to co-authorship of three external publications and (ii) the Value in Health “Affordability” Themed issue leading to two external publications.
- Work for the US Institute of Comparative Effectiveness Research (ICER) Summits in 2017 and 2018 which led to two publications in 2018 – one on the use of real-world evidence by payers, and one on paying for gene therapy.
- Research, led by Patricia Cubi Molla in collaboration with Martin Buxton and Nancy Devlin, to examine opportunity costs across public sector activities and the implications for the NHS cost effectiveness threshold. A simple conceptual model tests the feasibility of identifying public sector activities ‘at the margin’ across 6 areas, informed by Impact Assessments and interviews with government economists.
- Numerous publications on decision making (MCDA chapter and commentary on NICE ultra-orphan decision making); affordability and value (relationship between budgets and cost-effectiveness); and equity weighting/societal preferences (notably around end of life premia).

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Work for the US Institute of Comparative Effectiveness Research (ICER) Summits led to two publications in 2018 – one on the use of real-world evidence by payers, and one on paying for gene therapy.”

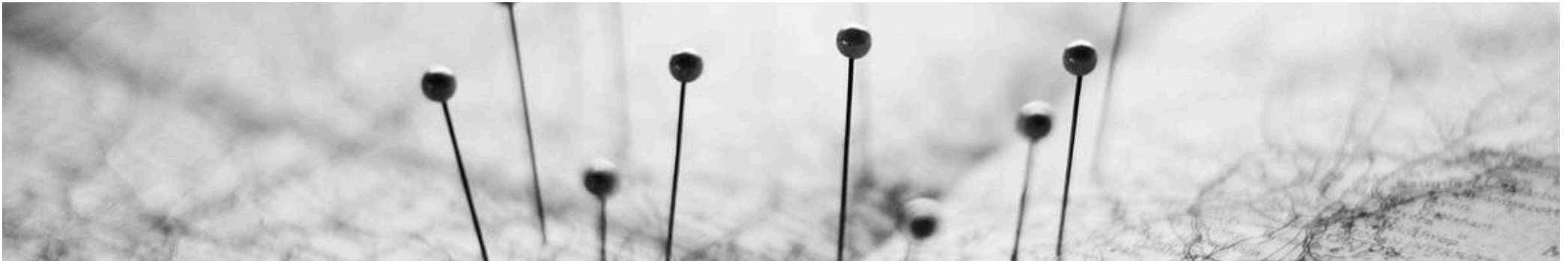
Measuring and valuing outcomes

Lead: Nancy Devlin

This research theme has been remarkably productive over recent years.

NOTABLE SUCCESSES AND ACHIEVEMENTS:

- Large number of publications in 2018.
- OHE established an excellent reputation for doing innovative, ideas-driven research, particularly in relation to valuation and analysis of EQ-5D. An unsolicited comment received early in 2018 from the senior scientist at the EuroQol Research Foundation: “There is a lot of respect for the work that your group has done and is doing. We really appreciate the volume, quality and innovativity of the work from your group. No other group matches that” (Dr Elly Stolk, 17/5/18).
- This is OHE’s largest theme by activity.
- Demonstrable evidence of impact, via the relevance of our work for NICE, DHSC and other health care organisations internationally. The group undertook outcomes related work in Ireland, India, Mexico, Sweden, Canada and China.
- OHE’s first short course, delivered successfully in conjunction with Uppsala University to 45 participants (statisticians, clinical triallists, the health economics team from TLV, the leads of several patient registries, postgrad researchers from various Swedish universities). Feedback was extremely positive, e.g. “Thank you again for your excellent short-course at Uppsala University last month! The course content and your interaction with the participants made these two days fantastic!” (Dr Langenskiöld, University of Uppsala, 16/10/18). This has led to demand for a further course in Stockholm in November (in conjunction with the EuroQol Group).



7.2 Impact case study

As OHE's Impact Case Study, we have selected the report on **Public Health and Economic Implications of the United Kingdom Exiting the EU and the Single Market**, which although was published in the middle of December of 2017, had a great impact in 2018.

Research Team: Francois Maignen (OHE), Mikel Berdud (OHE), Grace Hampson (OHE) & Paula Lorgelly (OHE).

OVERVIEW OF THE BODY OF WORK:

This research was commissioned by the Association of the British Pharmaceutical Industry (ABPI) and the BioIndustry Association (BIA) to provide important evidence for the ongoing policy analysis into the implications of the UK leaving the EU. It was published on the date of the

“

The report assesses the sensitivity of the various potential public health and economic impacts according to a number of different possible combinations of trade and regulatory agreements.”

House of Commons Health Select Committee meeting on 'Brexit: the regulation of medicines, medical devices and substances of human origin'.

Giving evidence to the committee, Steve Bates, CEO of the BIA, used this research to urge the Governments of the EU and the UK Government to “safeguard public health in the UK and Europe by making the regulation and supply of medicines the first priority in phase two of Brexit talks.” The report assesses the sensitivity of the various potential public health and economic impacts according to a number of different possible combinations of trade and regulatory agreements between the UK and EU.

It showed that the public health implications of Brexit will become more severe as public health cooperation and trade relationships lessen between the EU and the UK. Importantly, the public health impacts may not just occur in the UK, but many may also be significant in the remaining counties of the EU and the European Economic Area. The report explained that in the event of Europe and the UK no longer cooperating as they do today on medicines and public health, key findings show:

- The sharing of important drug safety information or information relating to adverse medical events could face a five-month delay.
- Europe's management of large-scale emerging public health concerns or crises – such as the Zika virus – could be at risk.

MANAGING OUR RESEARCH TO MAXIMISE ITS IMPACT

- A potential for increased frequency of medicines shortages due to administrative burden, customs delays and tariff measures.

To maximize the dissemination and impact of this study, several strategies were followed. First, we published the report in two versions: an Executive Report, which provides headline results according to various 'scenarios', and a detailed Technical Annex, which provides methods and results for each of the individual analyses upon which the headline results are based.

Additionally, the publication of the report was set for the date in which the House of Commons Health Select Committee met to discuss 'Brexit: the regulation of medicines, medical devices and substances of human origin'. This gave the report an important resonance in the media and policy making outlets (see below).

EVIDENCE OF THE IMPACT OF OUR WORK

Besides being used as evidence for the meeting of the House of Commons Health Select Committee on 'Brexit: the regulation of medicines, medical devices and substances of human origin', the Brexit report was widely cited.



OHE's Brexit analysis was cited in the Government impact assessment on the implications of setting up the MHRA as a standalone UK regulator and in a report published on the NHS Confederation website, and commented on by Dr Sarah Wollaston MP.

As a result, it was referenced in articles in the media, i.e. The Times, the Guardian and Politico. OHE's report on Brexit was also cited in an article on PMLive.

7.3 Other examples of impact and citations by policy makers and influencers

Citations of OHE research in key texts

Martina Garau was contacted by Kojiro Shimosuma from Ritsumeikan University of Japan for a permission to replicate in Japan the study presented in her Pharmacoeconomics paper 'Applying a Multicriteria Decision Analysis (MCDA) Approach to Elicit Stakeholders' Preferences in Italy: The Case of Obinutuzumab for Ritsuximab-Refractory Indolent Non-Hodgkin Lymphoma (iNHL)'.

A study by researchers in Australia (Hall et al.) investigated differences between public and patient preferences for end of life treatments, building on Koonal Shah's research on end of life preferences and intended to address a recommendation by Koonal for research examining "the extent to which public preferences correspond to those of patients at the end of life and their families". The paper is currently in the journal submission process.

The paper reporting the German EQ-5D-5L value set (Ludwig et al., 2018) indicates that OHE research contributions had an impact on the design and methods of analysis in that study, such as the work to develop an improved version of the EQ-VT software (Shah et al., 2015) and the censoring of TTO data (Feng et al., 2017).

“

OHE's EQ-5D-5L value set is being used to analyse outcomes in a number of new and ongoing studies..."

OHE's EQ-5D-5L value set is being used to analyse outcomes in a number of new and ongoing studies – for example, a trial assessing the routine administration of fluoxetine after an acute stroke improves patients' functional outcome, led by researchers at the University of Edinburgh.

A paper on value-based pricing in Pharmacoeconomics by the World Health Organization (Garner et al., 2018) cited OHE research by Towse and Barnsley.

Citations of OHE research by decision makers and policy influencers

OHE's Brexit report (Public Health and Economic Implications of the United Kingdom Exiting the EU and the single market) was cited by mainstream media outlets (e.g. the Guardian) and in a report published on the NHS Confederation website, and commented on by Dr Sarah Wollaston MP.

The Business, Energy and Industrial Strategy Committee (a cross-party committee appointed by the House of Commons) published a report naming OHE and citing its estimate of costs that will be incurred should the UK lose its free trade agreements without a customs arrangement with the EU.

The policy implications of the EQ-5D-5L value set for England (Feng et al., 2018; Devlin et al., 2018) were recognised by decision makers and researchers in the UK and beyond. NICE had issued a [position statement](#) in August 2017. The importance of the new value set for NICE HTA, and potentially for other uses of the EQ-5D in the NHS (e.g. the PROMs programme) has been discussed at Appraisal Alignment Working Group – a cross departmental government initiative. In keeping with the recommendations of Macpherson (2013) about modelling work influencing Government decisions, the Department of Health has

commissioned an external validation of the study, as well as other studies to explore the effect of the new values on previous decisions.

OHE's work has also been the focus of attention from other researchers and commentators on NICE decision making. Commentaries on the issues for NICE in transitioning from the 3L to the 5L have been published by [Round](#) (2018); [Brazier, Briggs and Bryan](#) (2018); and [Sampson](#) (2018), as well as by [Devlin, Brazier, Pickard and Stolk](#) (2018).

OHE's rare diseases report ('Comparing Access to Orphan Medicinal Products (OMPs) in the United Kingdom and other European countries') was referenced in parliamentary questions, in a question addressed to the Secretary of State for Health.

A paper on value-based pricing by the World Health Organization (Garner et al.) cited OHE research on identifying, measuring, and aggregating elements of value by Towse and Barnsley.

Adam Carrick, head of Planned Care & Programmes, NHS North, East and Western Devon CCG, contacted Nancy Devlin to seek advice on a planned



expansion of PROMs to the population of two CCGs, combined population around 1.3m patients. Adam noted that the plans were influenced by OHE's publications on using PROMs to improve health care.

OHE's work on the quality of life of long-term cancer survivors was picked on two consecutive days (4th and 5th July 2018) by NICE's Medicines Awareness Daily alert. On one day the alert summarised OHE's Consulting Report; on the other day it summarised the OHE blog post on the topic.

Koonal Shah's review of public preferences regarding the value of end of life treatments was cited in an article in the Conversation.

A news item by journalist Francesca Bruce in Pink Sheet (part of the Pharma Intelligence network) discussed findings from the OHE Consulting Report on appraising ultra-orphan drugs (Towse and Garau, 2018), including direct quotes from the report.

The website PMLive included in its 'Morning brief' an article discussing the OHE Seminar Briefing by Owens and Hopkins, including direct quotes from the authors.

ecns.cn, a China news service website, published an article about Chinese investment in robotic surgery on 6th June. The article refers to an OHE Consulting Report ('Barriers to uptake of minimal access surgery in the United Kingdom') and cites a statistic from that report.

Other citations and related achievements

In the first half of 2018, David Mott's editorial on incorporating quantitative patient preference data into healthcare decision making processes one of the five most downloaded articles published by the journal *The Patient*.

In the first half of 2018, Paula Lorgelly's paper on the impact of Brexit on pharmaceuticals and HTA was one of the five most downloaded articles published by the journal *PharmacoEconomics – Open*.

Nancy Devlin was approached by EORTC (European Organisation for Research and Treatment of Cancer) for advice/critical review of protocols being developed for the valuation of the QLU-C10D, a preference-based measure of quality of life in cancer patients.

The Canadian Institute of Health Improvement (CIHI) sought advice from Nancy in early January on implementing a PROMs programme across the regional health care systems. She was interviewed by two senior staff from CIHI to explore the NHS experience with routine collection of PROMs.

Koonal Shah was approached by a scientist working at the Indian Ministry of Health who was seeking advice on an HTA / health outcomes issue (guidance on comparing results obtained by EQ-5D and a condition-specific measure). Koonal provided informal advice on a pro bono basis.

“

David Mott's editorial on incorporating quantitative patient preference data into healthcare decision making processes one of the five most downloaded articles published by *The Patient*...”



Financial review

8 Financial review

8.1 OHE's financial structure

In 2018 OHE remained an organisation that undertakes research and related activity in line with its charitable objectives.

As reported last year, OHE owns the sole share in OHE Consulting Limited with the purpose of:

- Enabling OHE to employ a larger staff team than would be possible using research income alone.
- Allowing staff gain knowledge, skills and experience undertaking consulting projects that can be carried across into research and research-related projects.
- Investing the profits generated from consultancy work as Gift Aided to OHE, subject to the agreement of the Directors of OHE Consulting Limited. This continued to be an important source of income for OHE in 2018.

During 2018, OHE employed an average of 20 staff.

8.2 OHE's financial performance in 2018

The financial statements of OHE comply with the Charities Act 2011, the Companies Act 2006, the Memorandum and Articles of Association, and Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2015) ("Charities SORP FRS 102").

OHE's consolidated turnover (i.e. combining both OHE and OHE Consulting Limited) in 2018 was £3.27m. The expenditure totalled £3.21m which left a small net income of £57,102, although larger than that of 2017.

Of the £3.21m expenditure, staff costs in 2018 amounted to **£1.86m**, i.e. 58%.

Support services for the consolidated businesses accounted for **£0.39m**.

The consolidated accounts for OHE are included as an Annex to this report.

8.3 Sources of funding

The consolidated income of £3.03m comprises:	£000
Donations	1098.3
Income from charitable (research) activities	1,121.5
Interest	0.4
Totally research income	2,219.8
OHE Consulting Income	1,056.2
Total Income	3,276.4

Donations are from the ABPI and are for two distinct purposes:	£000
Support for core research activities	707.4
Grant towards financing of support activities	390.9
Total	1,098.3

Income from charitable (research) activities came from a number of sources. Major research projects and funders included:

- Innovation to tackle TB in MICs: A Plan for Action Towards a sustainable Model for MIC-fuelled Health Care Innovation, funded by **Bill and Melinda Gates Foundation** (BMGF)
- Health technology assessment for new drugs to tackle anti-microbial resistance, funded by the Wellcome Trust.
- Improving Labour Productivity in Primary Care: the role of skill mix, technology and patients, funded by the **Health Foundation**.
- Drop dead: an assessment of the conceptual basis for 'death' as an anchor in health 2018 state valuation, funded by the **EuroQol Research Foundation**.
- Generation of an EQ-5D- 5L social value set for the Mexican population, funded by the **AMIIF** (Mexican pharmaceutical industry trade association).
- Development and psychometric testing of EQ-5D-5L bolt-on descriptors for vision and cognition: a study in the UK and Australia, funded by the **EuroQol Research Foundation**.

A black and white photograph of a scientist in a white lab coat and hairnet, looking through a microscope. The scientist is positioned on the left side of the frame, leaning over a desk. The microscope is on the right side of the frame. A teal banner with the text "Plans for 2019" is overlaid on the center of the image. The background shows a laboratory setting with a railing.

Plans for 2019

9 Plans for 2019

OHE will continue to expand the focus of our work beyond the UK, and to focus effort on maximising the impact of our research on improving health care decision making both in the UK and further afield.

In its role as a newly-established charity, OHE will be developing evidence-based policy positions, which it will advocate by engaging with a wide range of stakeholders via events, media commentaries, and publications.

The plans for 2019 are to support the consolidation of the Research Themes (from six to four). In order to energise the themes and generate novel research paths, the leading roles of each research theme will be taken over by younger OHE staff members. To compound this change, the hiring of a new Head of Research and a new Head of Consultancy will be key to reinforce the new research framework.

Equally, 2019 will see the implementation of the revised structure for OHE's committees: a Research and Policy Committee as the principal scientific

and policy advisory sub-committee of the Board of Trustees with an strengthened membership. The expanded Editorial Panel to peer-review OHE publications will be actuated and the Management Committee disbanded. The financial oversight of OHE will be the responsibility of the Board of Trustees, and operational matters will be the responsibility of the senior management team.

OHE will continue to expand the focus of our work beyond the UK, and to focus effort on maximising the impact of our research on improving health care decision making both in the UK and further afield.

In its role as a newly-established charity, OHE will be developing evidence-based policy positions, which it will advocate by engaging with a wide range of stakeholders via events, media commentaries, and publications.

A black and white photograph of three business professionals standing side-by-side. The person on the left is a woman in a light-colored blazer with her arms crossed. The person in the middle is a man in a striped shirt and dark tie. The person on the right is a man in a dark suit. A teal rectangular box is overlaid in the center, containing the text 'Structure, governance and management' in white serif font.

Structure, governance and
management

10 Structure, governance and management

During 2018, OHE's structure underwent important changes, some of which are being fully implemented in 2019.

Most importantly, towards the end of 2018 the overall management of OHE was transferred from Prof Adrian Towse to Prof Graham Cookson, the new Chief Executive Officer of OHE. Prof Graham Cookson had been Director Designate during the months preceding the resignation of Prof Adrian Towse as Director.

The new Chief Executive Officer joined the Senior Management Team, which in 2018 originally comprised the Director, Prof Adrian Towse, the Deputy Director, Prof Paula Lorgelly, and the Director of Research, Prof Nancy Devlin. The Senior Management Team reported as usual to the Trustees on a quarterly basis.

In 2018, OHE employed an average of 20 FTE research staff based at its offices in London. The OHE team comprised the three Directors (who then became four for some months), two Principal Economists, one Senior

Economist, one Business Intelligence specialist, ten Economists, three administrative support staff and seven Honorary Visiting Fellows.

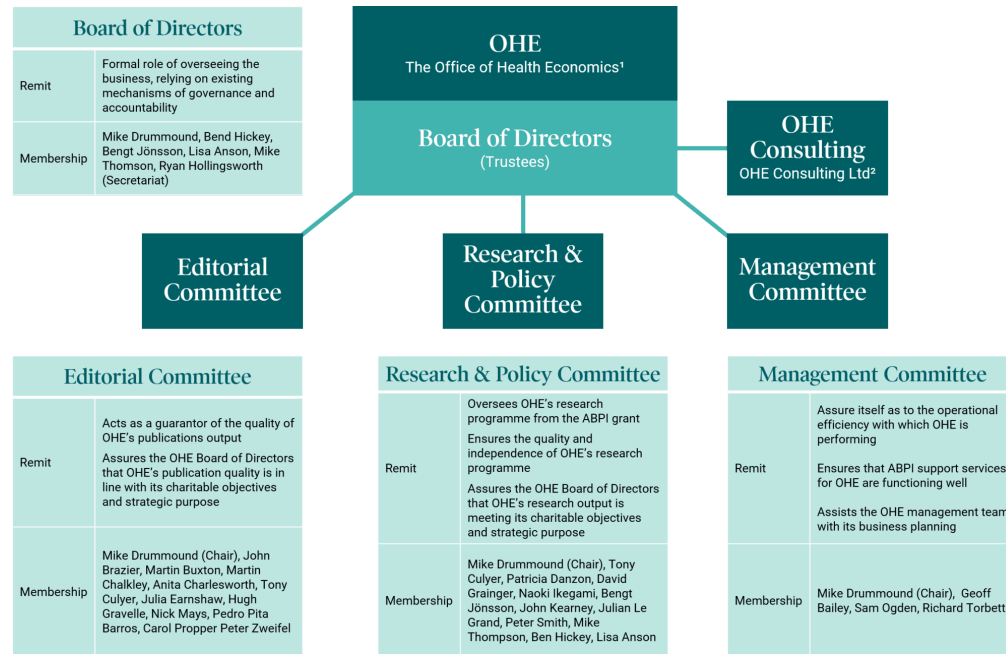
In addition to the governance of the Board of Trustees, OHE was also advised by a Research and Policy Committee, an Editorial Committee and a Management Committee. The members of each committee and their reporting lines are given in the figure below.

At the beginning of 2018, the structure was that in Figure 1. By the end of 2018, the structure had evolved into what is represented in Figure 2.

As described before, the new structure in Figure 2 reflects:

- the dis-establishment of the Editorial Committee and the creation of Editorial panel
- the dis-establishment of the Management Committee – whose partial remit was transferred to the OHE Board of Trustees and OHE's CEO
- the committees' new composition

Figure 1: OHE Organigram January 2018



¹ - The Office of Health Economics (a charity of registered number 1170829 & company limited by guarantee of registered number 09848965)
² - OHE Consulting Ltd (a registered company number 09853113)

Figure 2: Organigram by the end of 2018



¹ - The Office of Health Economics (a charity of registered number 1170829 & company limited by guarantee of registered number 09848965)
² - OHE Consulting Ltd (a registered company number 09853113)



Independent Auditor's Report

THE OFFICE OF HEALTH ECONOMICS
(A company limited by guarantee)

TRUSTEES' REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2018

[View the report in full above.](#)

List of acronyms

ABPI	Association of the British Pharmaceutical Industry
CART	Chimeric Antigen Receptor T-Cell
CEO	Chief Executive Officer
CQUIN	Commissioning for Quality and Innovation
DOI	Digital Object Identifier
DIF	Differential Item Functioning
EQ-5D	EuroQol Five-Dimension
EQ-5D-3L	EuroQol Five-Dimension Three-Level
EQ-5D-5L	EuroQol Five-Dimension Five-Level
EQ-5D-Y	EuroQol Five-Dimension Youth
EU	European Union
FDA	Food and Drug Administration
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
HESG	Health Economists' Study Group
HEHTA	Health Economics and Health Technology Assessment (University of Glasgow)
HTA	Health Technology Assessment
HTAi	Health Technology Assessment International
ICER	Institute for Clinical and Economic Review [can also denote Incremental Cost-Effectiveness Ratio]
ISPOR	International Society for Pharmacoeconomics and Outcomes Research
MCDA	Multi-Criteria Decision Analysis
MGHA	Melbourne Genomics Health Alliance
MID	Minimally Important Difference
MRC	Medical Research Council
NHS	National Health Service

NICE	National Institute for Health and Care Excellence
NIHR	National Institute for Health Research
OHE	Office of Health Economics
PI	Principal Investigator
PRO	Patient-Reported Outcome
PROM	Patient-Reported Outcome Measure
QALY	Quality-Adjusted Life Year
REF	Research Excellence Framework
SPSS	Statistical Package for the Social Sciences
SAS	Statistical Analysis System
TTO	Time Trade-Off
UK	United Kingdom (of Great Britain and Northern Ireland)
US	United States (of America)

About us

Founded in 1962 by the Association of the British Pharmaceutical Society, the Office of Health Economics (OHE) is not only the world's oldest health economics research group, but also one of the most prestigious and influential.

OHE provides market-leading insights and in-depth analyses into health economics & health policy. Our pioneering work informs health care and pharmaceutical decision-making across the globe, enabling clients to think differently and to find alternative solutions to the industry's most complex problems.

Our mission is to guide and inform the healthcare industry through today's era of unprecedented change and evolution. We are dedicated to helping policy makers and the pharmaceutical industry make better decisions that ultimately benefit patients, the industry and society as a whole.

OHE. For better healthcare decisions.

Areas of expertise

- Evaluation of health care policy
- The economics of health care systems
- Health technology assessment (HTA) methodology and approaches
- HTA's impact on decision making, health care spending and the delivery of care
- Pricing and reimbursement for biologics and pharmaceuticals, including value-based pricing, risk sharing and biosimilars market competition
- The costs of treating, or failing to treat, specific diseases and conditions
- Drivers of, and incentives for, the uptake of pharmaceuticals and prescription medicines
- Competition and incentives for improving the quality and efficiency of health care
- Incentives, disincentives, regulation and the costs of R&D for pharmaceuticals and innovation in medicine
- Capturing preferences using patient-reported outcomes measures (PROMs) and time trade-off (TTO) methodology
- Roles of the private and charity sectors in health care and research
- Health and health care statistics

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OHE Consulting Ltd Registered Company No. 09853113

OHE is a Charity Registration No. 1170829

Registration Office Southside, 105 Victoria Street, London SW1E 6QT

Thank you for reading

OHE Annual Report

October 2019

Mireia Jofre-Bonet
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