

ANNUAL REPORT

Using Economic Analysis to Inform Policy and Practice Internationally



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It's wonderful to be able to provide an update on our activities in 2023, which marked CHE's 40th birthday!

CHE has come a long way since it was founded in October 1983, with Alan Maynard at the helm. Funding from what is now the Economic and Social Research Council and the Department of Health allowed CHE to kick off with 11 research staff, with the objective of developing the 'sub-discipline' of health economics and applying it to health policy making. With more than 70 researchers and grants from a wide range of funders, CHE is still delivering on its initial aims.

One of CHE's strengths is that our work covers most of the current areas of health economics. with Research Themes including economic evaluation, health policy, global health and public health. This allows us to bring together different approaches and methods synergistically. A good example is the REAL Research Units, funded by the Health Foundation (see page 4). The Unit focusing on the supply of health and social care in England is being led by CHE and will incorporate methods relating to several of CHE's themes. This approach is further illustrated by CHE's involvement in the REAL Research Unit focussed on demand, which is being led by the University of Oxford.

The REAL Research Units emphasise CHE's ultimate objective to influence policy, just as it set out to do back in 1983. This needs the right mix of dissemination and knowledge exchange activities. Articles in peer-reviewed journals remain important to show the rigour

of our research and to inform the research and policy communities, and articles published in 2023 are detailed here. To impact on policy, we need to reach different audiences by going beyond the academic domain. In 2023 we initiated our CHE Research Summary series to provide short and accessible synopses of recent CHE research, with 14 published during the year. In the autumn, we also launched a series of Policy Forums where CHE staff presented their research to be accessible for a broad audience, and comment was provided by discussants from the policy world and academia (see page 5).

Advising and supporting policymakers is another route to research impact on the real world. In 2023, Nils Gutacker became an advisor to the German Federal Government and Laura Bojke was appointed to chair a new World Health Organization (WHO) advisory committee on the link between the environment, climate change and health (see page 5). Our longstanding programme of short courses is another route for knowledge exchange and impact. In 2023 we welcomed 240 participants to four online courses and one in-person event (see page 13). The courses attract participants from across the world, some of whom are directly involved with developing policy; others are analysts who use the methods they learn about for their own research.

CHE researchers continue to study the impact of COVID-19 and draw insights for future planning. Adrián Villaseñor describes important forward-looking conclusions from work on how mental health services responded to the pandemic in the English NHS (see page 6). This sort of understanding is key to enhancing the resilience of healthcare systems to similar shocks in the future. Reducing the impact on healthcare systems of acute disease and economic crises is also a key topic in

CHE's research in low- and middleincome countries. Again, the value of our global health research relies on close working with policy makers. Two pieces in this annual report describe how this can be done through partnership with policy organisations: Stephanie Richards describes a meeting convened with the East. Central and Southern Africa Health Community and the African Union Development Agency to discuss the commitments defined in the African Union's African Leaders' meeting (see page 11); and Alison Symington summarises discussions at a meeting with the Council of Ministries of Health of Central America and the Dominican Republic (see page 19). In broad terms, CHE's research in global health considers how much resource should be committed to healthcare and how those resources are best used to enhance health and equity. The existing analytic approaches of health economics can address these questions but, as recognised when CHE began in 1983, we also need to acknowledge their limitations and use methods research to refine existing approaches and develop new tools. Sakshi Mohan provides an example from Uganda: developing a framework jointly identifying efficient interventions for the health benefits package and guiding appropriate use of the same limited funds on the capacity of the overall health care system (see page 17).

CHE's achievements in 2023 are wholly down to our excellent researchers, support staff and students, and we welcomed several more to our team this year. I would like to express my thanks to all my colleagues, as well as of course to our research funders. I hope you enjoy reading our 2023 Annual Report.

Mark Sculpher

Head of Department, Centre for Health Economics

New REAL Research Unit with an ambitious programme of research on health and social care

CHE has been selected to lead a major research programme aimed at improving the quality of decision-making in health and social care.

The team from CHE will receive more than £3.7m over seven years from independent charity, The Health Foundation, to set up the *REAL Research Units programme*.

Working in collaboration with researchers from the Universities of Kent, Aberdeen and the Scottish Policy Research Exchange, the unit will develop and deliver an ambitious economic research programme focused on the supply of health and social care in England and aim to improve the resilience, sustainability and equity of care provision.

Tackle problems

Nils Gutacker, Co-lead for the REAL Supply Research Unit, said: "We need to think ahead and tackle problems before they disrupt the supply of health and care. This requires us to think more strategically.

"Becoming a REAL Supply Research Unit will offer a rare opportunity to engage with a wide range of stakeholders and co-develop an ambitious economic research agenda focused on health and care supply – with tangible outcomes that will have a real influence on how policymakers think about the future."

Susan Griffin, Co-lead for the REAL Supply Research Unit, said: "The REAL Research Unit represents an ambition to combine the focus and efforts of



The team of the REAL Supply Research Unit. From left to right: Sarah Birch (Kent), Nils Gutacker (CHE), Susan Griffin (CHE), Dave Bell (SPRE), Diane Skatun (Aberdeen), Florin Vadean (Kent), Julien Forder (Kent)

people across health and social care in order to transform how the long-term outlook is reflected in decisions."

Infrastructure

The REAL Research Units programme aims to develop leadership, advocacy and learning which will build consensus and develop the infrastructure needed to influence longer-term approaches to policy and funding decisions.

The Health Foundation's <u>REAL</u> <u>Centre</u> (Research and Economic <u>Analysis for the Long term</u>) provides independent analysis and research to support better long-term decision making in health and social care. Its aim is to help health and social care leaders and policymakers look beyond the short term to understand the implications of

their decisions around issues such as funding, investment and training over the next 10–15 years.

CHE is also a partner in the REAL Demand Research Unit which is led by the University of Oxford.

Unique opportunity

Anita Charlesworth, Director of the REAL Centre, said: "The setting up of the REAL Research Units is a unique opportunity to build both the research capacity and critical mass needed to deliver on the REAL Centre's ambitions to improve the quality of decision making in health and social care.

"The units will be integral to the work of the REAL Centre, enabling collaboration, partnerships and knowledge mobilisation which will translate our work into impact."

CHE Policy Forums 2023

Since its inception, CHE has been at the forefront of groundbreaking health economics studies, making substantial contributions to the enhancement of healthcare policies and practices worldwide.

As a testament to our enduring commitment to advancing healthcare, we hosted three engaging CHE Policy Forums during the autumn of 2023. Each forum delved into a distinct facet of CHE's extensive research portfolio, addressing critical issues shaping the future of healthcare. What set these forums apart was the inclusion of distinguished external discussants who provided invaluable insights from the realms of both research and policy-making.

In September, Martin Chalkley presented 'Paying for emergency care; why one size (probably) doesn't fit all'. He was joined by Martin Campbell, Deputy Director for Payment Development, NHS England and Anita Charlesworth, Director of Research and REAL Centre, NHS Foundation. Martin's presentation reviewed research CHE has undertaken aimed at understanding how these changes might affect delivery of emergency healthcare in the NHS. The forum highlighted that it is particularly important to understand how local discretion regarding payment entails both benefits and risks.

Beth Woods presented 'How much should we pay for innovation? Fair pricing for pharmaceuticals' in October. She was joined by Adrian Towse from the Office of Health Economics and Keith Derbyshire, former Chief Economist & Chief Analyst, Department of Health and Social Care. Beth Woods and the discussants explored recent research suggesting that prioritising long-term population health as the central objective of pharmaceutical pricing policy can help policymakers determine fair prices and appropriately distribute value between patients and pharmaceutical companies.

Paul Revill presented 'Building a policy-focused global health economics research programme' in November and was joined by Katherina Hauck from Imperial College London and Jo Keatinge from the Foreign, Commonwealth and Development Office. The discussants reflected upon how economic analysis can guide decisions on health spending reflecting constraints and complexities that exist across health care systems. Future CHE Policy Forums are planned - details can be found on CHE's website.

Sir Michael Rawlins

It was with sadness that CHE learnt of the passing of Sir Michael Rawlins. Sir Michael served as the founding Chair of the National Institute for Health and Care Excellence (NICE). The University of York conferred an honorary degree of Doctor of the University upon Sir Michael in 2017.

Promotions

Anastasia Arabadzhyan
David Glynn
Sebastian Hinde
Sakshi Mohan
Rodrigo Moreno-Serra
Rita Santos
Ieva Skarda
Wiktoria Tafesse
Adrián Villaseñor
Simon Walker

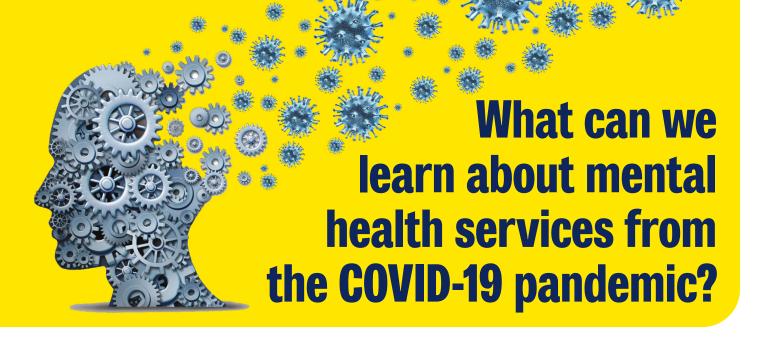
Senior Advisory Appointments

Nils Gutacker was appointed to Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen und in der Pflege (The German Federal Advisory Council for assessing the development in healthcare and nursing).

Laura Bojke was appointed as Inaugural Chair for the World Health Organization (WHO) Advisory Group on Economics for Environment, Climate Change and Health (TAG-EconECH).

PhD success

Zecharias Anteneh
Jacopo Gabani
Oliver Kaonga
Christopher Lübker
Jessica Ochalek
Vishalie Shah



Written by Adrián Villaseñor

Research Team: Adrián Villaseñor, James Gaughan, María José Aragón, Nils Gutacker, Hugh Gravelle, Maria Goddard, Anne Mason, Adriana Castelli, Rowena Jacobs.

n response to the COVID-19 pandemic, mental health services in England were substantially reduced, but at the same time demand for these services was increasing. Our research investigated the way in which mental health services in hospitals were used at this time and also provided insights into how services can respond to rising demand.

Many changes were made to hospital care such as shifting away from face-to-face to virtual care, arranging services to restrict the spread of COVID-19, as well as freeing up services to allow for social distancing and the expectation of treating large numbers of patients with COVID-19.

Our research compared the use of services in mental health hospitals during the initial thirteen months of the COVID-19 pandemic (from March 2020 to March 2021) to the use that might have been expected based on patterns observed before the pandemic. We measured several types of utilisation: number of hospital admissions, number of discharges, net admissions, length of hospital stay, bed occupancy, bed days, occupied beds, number of patients with outpatient appointments within 30 days of discharge, and outpatient attendances within 30 days of discharge.

Our first key finding gives a picture of quicker and sicker. We find that during the first national lockdown and also in the full pandemic period, both admissions and discharges were substantially higher than predicted based on pre-pandemic trends. As the length of hospital stay was also shorter, this suggests a more rapid turnover of patients during the pandemic period. Second, we find there were attempts to catch-up with demand after the initial reductions in activity. Indeed, around the end of the first lockdown, we find that there are greater numbers of admissions than discharges on a monthly basis, which may signal a return to pre-pandemic levels of care or even a need to catch up with delayed care. Last, we find that there has been a substitution between inpatient and outpatient care, reflected in a substantial increase in the number of outpatient appointments following discharge from inpatient care. This may have been because it was possible to arrange more care virtually or as a way to keep contact with patients who may otherwise have been inpatients. Patients themselves may also have been keen to reduce the chance of infection from being a hospital inpatient.

We can draw lessons from our findings for the financing, organisation, and management of mental health services when pressure on these services is high. In particular, we can see there is the potential to substitute between services, for example from inpatient to outpatient care. This may require changes in organisation and investment (e.g., in technology and skills), changes in care pathways, and an understanding of the right thresholds for hospital admissions.

Further research into this topic should investigate whether the shifts in care affect the health outcomes for patients. If the changes lead to worse health outcomes then greater capacity in mental health services may be needed to manage spikes in demand in future. Our results can help with planning for services, both in the context of the sharply rising demand for mental healthcare seen in recent years, as well as for any future pandemics.

Read the *full article in SSM-Mental Health*. Funding for this study was provided by *The Health Foundation*. Research projects are arranged in themes to reflect the cross-cutting nature of CHE research. CHE's broad funding base and funders for 2023 include:

CHE FUNDERS 2023

Big Lottery Fund

Bill and Melinda Gates Foundation

British Heart Foundation

British Skin Foundation

Department of Health and Social Care

Economic and Social Research
Council

Engineering and Physical Sciences Research Council

European Commission

EuroQol Group

Exact Sciences UK Ltd

The Global Fund

Global Institute for Disease Elimination

The Health Foundation

HM Treasury

Innovate UK

Medical Research Council (MRC)

Nordforsk – Nordic Research Council National Institute for Health and Care Research (NIHR)

Applied Research Collaboration (ARC)

Global Health Research (GHR)

Health Technology Assessment (HTA)

NIHR Evaluation Trials and Studies Coordinating Centre (NETSCC)

Policy Research Programme (PRP)

Programme Grants For Applied Research (PGfAR)

Public Health Research (PHR)

Research and Innovation for Global Health Transformation (RIGHT)

School for Social Care Research (SSCR)

NHS England

Research Council of Norway

UK Health Security Agency

University of Bergen

UK Research and Innovation (UKRI)

Wellcome

Worldwide Universities Network (WUN)

Yorkshire Cancer Research (YCR)



PEER REVIEWED

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Acting early to avoid adverse outcomes in adolescence for Gen Z



Written by Richard Cookson

Research Team: Aase Viladsen, George B. Ploubidis, Eric Brunner (University College London), Miqdad Asaria (London School of Economics), Ieva Skarda, Richard Cookson (CHE, University of York), Mark Mon Williams (University of Leeds).

n the UK, 29% of children (4.2 million) were in relative poverty after housing costs in the financial year 2021/22, a rise of 2% since the previous year. We already know that poverty and other aspects of social disadvantage in early childhood can cause adverse educational and health outcomes in adolescence that limit life chances. However, less is known about multiple adolescent vulnerability involving the clustering of multiple adverse outcomes in the same individual, and there is limited up-to-date data on Gen Z, the population born after the millennium that is now moving to adulthood.

We used data from the Millennium Cohort Study (MCS). which includes over 15,000 Gen Z children born between 2000 and 2002, to look at associations between household income in early childhood and five main outcomes at age 17: physical health, psychological distress, smoking behaviour, obesity and educational outcomes. We examined these outcomes individually and as clusters. We then produced simple estimates of the maximum potential benefits of crosssectoral policies to tackle social disadvantage in early childhood. We also looked at the potential impacts of improving income, as one specific aspect of social

disadvantage, by removing the influence of parental education and single parent status. We did not remove the influence of mediating variables on the pathway from early childhood income to adolescent outcomes – for example, adverse childhood experiences – as this would risk under-estimating the maximum potential policy impact: we wanted to know the maximum total impact, including indirect impacts via these mediating variables.

We found:

 When looking at single outcomes, the greatest outcome differences between adolescents born into the richest and poorest families were for poor educational achievement and smoking, with risk ratios of about 4.5 and 3.5, respectively.

- Risk ratios for multiple
 adolescent adversity were even
 steeper: children born into the
 worst-off families were nearly
 13 times as likely to have four
 or five adverse outcomes in
 adolescence than those born
 into the best-off families.
- Shifting the worst-off children into the next worst-off group yielded a maximum potential reduction of only 4.9% in multiple adolescent vulnerability involving four of five adverse outcomes.
- More ambitious levelling up strategies achieved much larger reductions in vulnerability. At the most ambitious extreme, shifting everyone to the most socially advantaged group could potentially reduce the number of adolescents experiencing four or five adverse outcomes by 83.9%.

Experiencing multiple adverse outcomes in adolescence is more strongly associated with low household income in early childhood than any single adverse outcome. But focusing on small improvements to the incomes of the very poorest in society is not enough to tackle this problem. A significant reduction in multiple adolescent vulnerability would require a substantial programme of coordinated, multi-agency action reaching right across the social spectrum to improve the material and social circumstances of almost all children, including those in the middle as well as the very poorest.

Read the <u>full article in The Lancet</u>.

Funding for this study was provided by the UK Prevention Research Partnership (ActEarly Programme, MR/S037527/1).

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Supporting the realisation of the Africa Leadership Meeting – investing in Health Declaration 2023

Written by **Stephanie Richards** on behalf of the Thanzi la Onse Research Team

n February 2023, CHE researchers working as part of the Thanzi la Onse (Health of All) Programme, collaborated with the East, Central and Southern Africa Health Community and the African Union Development Agency-NEPAD (AUDA-NEPAD) to host a new event: The Thanzi Programme Partners Workshop: supporting the realisation of the African Union's Africa Leadership Meeting (ALM) Declaration to improve health financing across the continent.

Convening senior representatives from pan-African organisations, agencies and health communities together with UK research institutions, the workshop presented a unique opportunity to reflect upon the commitments set-out in the African Union's ALM Declaration. The Declaration, signed by all African Heads of State in 2019, aims to promote increased domestic healthcare funding as part of the long-term goals for more resilient, efficient and sustainable health care systems.

Focused on supporting the wider ambitions of the ALM Declaration, and exploring how international research programmes – such as Thanzi – can best contribute, the workshop was structured into three distinct themes: (i) The African Union health financing commitments and Thanzi Programme contributions to health economics in East Africa; (ii) Delivering on the African Union health financing commitments and exploring the need for



Noleen Bhebhe presented the ALM-Declaration and AUDA-NEPAD's role in its realisation.

interdisciplinary research; (iii) Strengthening capability in health economics and related disciplines.

Feedback from participants highlighted that closer and long-term partnerships between policymaking and academic institutions is vital in order to achieve the objectives of the ALM Declaration. There is a need for better policy-oriented research analyses to guide policymakers on resource allocation and to equip policymakers with the skills to use research evidence. Research-topolicy partnerships across public institutions - i.e., ministries of health, ministries of finance and public universities - was identified as being of most value, due to existing political and social capital that can be further strengthened. Evidence is needed on the potential benefits of scaling up different healthcare interventions and programmes, and guiding cross-sectoral activities, on the path towards Universal Health Coverage.

Discussion also revealed a growing appetite for peer-to-peer learning and cross-disciplinary capability strengthening in health economics and related disciplines. The aim is to enhance technical knowledge and enable research design to become a more collaborative and

inclusive process for researchers and policy-makers. Online learning provision supported through the Global Health Economics Hub and new Health Economics MSc programmes being led by African universities (e.g., at Makerere University in Uganda, Kamuzu University in Malawi, Cheikh Anta Diop University of Senegal and the University of Ghana) - in addition to the launch of new Health **Economics Distance Learning MSc** Scholarships at the University of York - will offer valuable platforms to support postgraduate learning from 2023.

The workshop facilitated two major commitments – firstly, to establish a regional Health Economics Community of Practice in West Africa; and secondly, to reconvene all workshop participants in two years' time, as an opportunity to assess the progress made against the ALM Declaration commitments and review research and capability building priorities.

Click for further coverage of the Programme Workshop.

<u>Visit the Thanzi la Onse website for further information.</u>

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Courses and workshops 2023

The pause in CHE's face-to-face short courses and workshops during the pandemic, and staffing changes within the department, provided an ideal opportunity to review the format and content of our short courses. In 2023 CHE ran a mix of online, on-demand and in-person short courses.

Decision Modelling for Health Economic Evaluation (Foundations and Advanced courses) [online]

Decision analytic modelling is widely used internationally as a means of estimating the costs, outcomes, and cost-effectiveness of different interventions and programmes in healthcare and public health. In particular, these methods are often employed to assess the value of new pharmaceuticals as a basis for health systems to determine whether they should be funded.

Held in conjunction with the London School of Hygiene & Tropical Medicine, overall 98 participants from 32 countries attended.

An 'On Demand' version of these courses was made available from mid-2023, where 20 participants from 11 countries attended.

Analysing Patient-Level Data Using Hospital Episode Statistics (HES) [in-person]

NHS England data contains
Hospital Episode Statistics
(HES) of all inpatient admissions
and outpatient appointments,
Emergency Care Data Set (ECDS)

for all Accident & Emergency attendances to NHS hospitals in England, and Patient Reported Outcome Measures (PROMs) data for health gain in patients undergoing certain surgeries (e.g., hip or knee replacement). HES is the main data source for many healthcare analyses for the NHS, government, and other organisations. There is also an increasing role for this observational dataset in providing evidence-based parameters, which are not collected in trials for the economic evaluation of new technologies.

This course was hosted in-person on the University campus over three days in May, attracting 24 participants. Taught by academics with extensive experience in using HES, this intensive workshop introduces participants to HES data and teaches them how to handle, manipulate and begin to analyse these very large datasets.

Statistical Methods in Economic Evaluation for Health Technology Assessment (HTA) – Advanced [in-person]

This three-day advanced course

focuses on the use of statistical methods for the analysis of individual patient-level cost, effects (e.g., survival and health-related quality of life) and other types of data used in costeffectiveness analysis for HTA. It is intended for people who wish to learn how to apply (and interpret the results of) more advanced techniques for the analysis of data collected alongside both experimental (e.g., RCTs) and observational (sometimes referred to as "real-world") studies, where the objective is to estimate withinstudy quantities (e.g., differential mean costs) or to derive key input parameters to populate economic evaluation models for HTA. The course includes a mixture of taught modules and practical exercises.

This course was hosted in-person in September, with 33 participants from 7 countries attending.

Distributional Cost-Effectiveness Analysis (DCEA) [online]

New for 2023, this online course ran for a five-week period in the autumn, focusing on methods for analysing equity in the distribution of health programmes costs and effects, and trade-offs between equity and cost-effectiveness. Designed for participants who are already familiar with standard methods of cost-effectiveness analysis, this advanced course is for those wishing to learn more specialised methods for analysing distributional equity impacts and trade-offs.

65 participants from 16 countries attended.

"Excellent content and speakers"

"It was an **exceptional learning experience**; the course material was comprehensive and well-structured, providing me with a solid understanding..."

"It was amazing to have the **opportunity to learn** these topics without the need to travel and at my own pace"

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Written by Francesco Longo and Karl Claxton

already use services?

Research Team: Francesco Longo, Karl Claxton (CHE, University of York), James Lomas, Stephen Martin (University of York).

ublicly-funded Adult Social Care (ASC) services in England aim to improve the quality of life of people with care needs due to physical and/or mental health challenges. However, many people cannot access these services, even if they need them, because they are available only to those whose financial resources fall below a certain level. Our research looked at whether making it easier for a larger number of people to receive services (by extending the financial eligibility criteria) means that we get greater value for money compared with spending more on people who are already receiving these services.

We studied a representative sample of service users receiving long term support (e.g., home care, residential care) from 2017/18 to 2019/20. First, we estimated the effect of extra spending on the quality of life of existing service users. Then, we estimated the same effect for people who had similar characteristics to existing service users but who were not receiving any public ASC services.

We found that spending more on ASC improves the quality of life of both existing service users and those who would become eligible for public ASC under more generous financial eligibility criteria. Indeed, the latter group benefits relatively more than the former. Therefore, extending ASC eligibility and making it easier for more people to access ASC is likely to provide better value for money compared with spending the same amount of money on existing users.

Our research findings support policies that extend access to public ASC to those who have similar care needs to existing service users. It also may help decision-makers who need to assess the benefits and opportunity costs of investments in new ASC services. This is even more important as pressures on public finances increase, and especially in countries where the public sector makes up a substantial proportion of the whole economy.

We are pursuing some additional avenues of research on this topic. First, we are investigating the effect of public ASC spending on the wellbeing of informal unpaid carers who are a crucial part of the social care sector. Also, we are exploring the effect of such spending on the local economy, achieved through improvements in the quality of life of service users and carers. Taken together, these pieces of evidence will start to provide a more complete picture of the benefits of public expenditure in the important area of Adult Social Care services.

Read the full paper in the BMJ Open.

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Rowena Jacobs The economics of severe mental illness. *Invited Lecture on MSc in Mental Health Economics, Queen Mary University of London, March* 2023.

Shainur Premji (and others) Equity in Global Health Economics and Outcomes Research. Health Equity in HEOR: Past, Present and Future Research Implications. *ISPOR Student Network event*, March 2023.

Jacopo Gabani The effect of health financing systems on health system outcomes: A cross-country panel analysis. Health Financing Technical Working Group of the Ministry of Health and Child Care of Zimbabwe, April 2023.

Rowena Jacobs The economics of mental health. *Invited Lecture at PhD student workshop, University of Lucerne, April 2023.*

Sumit Mazumdar Political economic origins and attributes of the colonial health system in British India: An exploration into early medical institutions and services in Calcutta. *British Association for South Asian Studies Conference, University of Leeds,* April 2023.

Ana Duarte Beyond efficiency in HTA: Making trade-offs between efficiency and health inequality explicit. Plenary Symposium: Pushing the Frontiers of Comprehensive Health Technology Assessment: Assessing the Trade-off between Efficiency and Equity at 2023 Society for Medical Decision Making 18th Biennial European Conference, Berlin, May 2023.

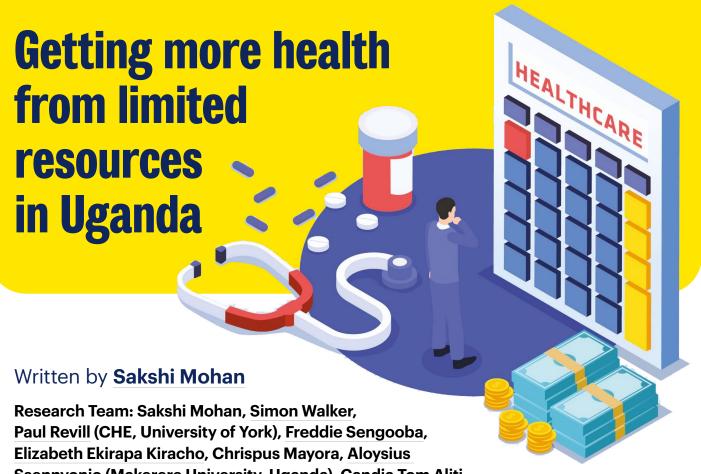
Ana Duarte Extending beyond aggregate cost-effectiveness results in diagnostics evaluation: The case of software fusion for the diagnosis of prostate cancer. 2023 Society for Medical Decision Making 18th Biennial European Conference, Berlin, May 2023.

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Shainur Premi, Simon Walker, Nils Gutacker and Susan Griffin Using routinely collected data to examine the distributional cost-effectiveness of the NHS Abdominal Aortic Aneurysm (AAA) Screening Programme in England. Summer HESG in Oxford, June 2023.

Jacopo Gabani Health financing reforms, and their effect on health system outcomes. *Tony Blair Institute for Global Change*, June 2023.

David Glynn Cluster Computing for Dummies. *R for HTA 2023 at York,* June 2023.



Paul Revill (CHE, University of York), Freddie Sengooba, Elizabeth Ekirapa Kiracho, Chrispus Mayora, Aloysius Ssennyonjo (Makerere University, Uganda), Candia Tom Aliti (Ministry of Health, Uganda).

Il countries face the challenge of how to allocate their limited healthcare resources in order to improve the health of their population. This challenge is amplified in low- and middle-income countries, where healthcare budgets and health system capacities are highly constrained.

Trying to meet all the health needs of the population is not only infeasible but also not an efficient way to use resources. Health Benefits Packages (HBPs) can be used to identify which interventions offer the highest value for money and should be prioritised by the health system.

CHE researchers collaborated with researchers from Makerere School of Public Health and planning officers from the Ministry of Health to investigate this challenge in the context of Uganda. We used evidence on the health benefits generated by different health services and the resources needed to deliver

them. This allowed us to generate a HBP for the country. The methodology ensured not only that the chosen services provided the biggest health impact for every dollar spent, but also that the current budget for drugs and medical commodities, as well as the availability of health workers, would be sufficient to deliver the services to all those in need.

However, delivery of health services is not the only use of healthcare budgets. Money also needs to be allocated for expanding the capacity of the health system to meet the current and growing needs of the population. To answer the question of which health system inputs should be prioritised for further investments, we applied the same methodology to estimate the potential health impact from relaxing two of the constraints in the current health system in Uganda: the budget for drugs and medical commodities and health worker capacity. The

analysis showed that investing in expanding health worker capacity – particularly nurses, pharmacists and nutrition staff – would provide the greatest value for money in Uganda at the current time.

The research offers valuable insights into strategic resource allocation for improved healthcare delivery and population health outcomes in Uganda. It is important that HBPs are reviewed regularly in order to respond to changes in health needs, medical technology, health system capacity and the availability of evidence.

The methodology used in this work can also be used to consider other objectives beyond health maximisation (such as equity) and other constraints (such as medical equipment), depending on policy objectives and the availability of evidence and data.

Read the <u>full article in Health Economics</u>.

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Presentations 2023

Rowena Jacobs The economics of severe mental illness. Economics of Mental Health Workshop, CINCH University of Duisburg-Essen and Queen Mary University of London, June 2023.

Rowena Jacobs Labour market participation and mental health. Presentation and advice to the Economic Adviser to the Chancellor and Treasury colleagues, *HM Treasury*, June 2023.

Francesco Longo Unpacking the Care-Related Quality of Life Effect of England's publicly funded Adult Social Care. 2023 Summer HESG in Oxford, June 2023.

Paul Revill Economics of disease elimination and eradication. GLIDE, NYU and Carter Centre course on Disease elimination and eradication strategies for infectious diseases in LMICs, Abu Dhabi, UAE, June 2023.

Andrea Salas-Ortiz and Francesco Longo Does publicly-funded Adult Social Care impact informal and unpaid carers' quality of life in England? 2023 Summer HESG in Oxford, June 2023.

Anastasia Arabadzhyan and Adriana Castelli Emergency readmissions: is 30day the optimal time interval to capture hospital quality of care? International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Jacopo Gabani and Sumit Mazumdar (and others) The Redistributive Effect of the Public Health System: The Case of Sierra Leone. How Can We Make Health Financing More Equitable? Lessons from Ghana, Indonesia, Sierra Leone, and Tanzania. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Jacopo Gabani and Marc Suhrcke (and others) Does Development Assistance for Health Matter to Financial Risk Protection? An Analysis across 159 Household Surveys, 2000-2016. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Sebastian Hinde Economic Evaluation and Decentralised Decisions: Why Current Approaches Can be Unsuitable and What Can be Done to Improve Them. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Sebastian Hinde Health Inequality in Economic Evaluation and Localised Decision Making: Same Term, Different Meaning? International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Rowena Jacobs Mental Illness and Economic Outcomes in South Africa. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023. Rowena Jacobs The impact of mental health status on employment, income, out of pocket payments for healthcare and household spending patterns. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Sumit Mazumdar Being Strategic in Purchasing to Finance Health Care: Political Economy Considerations for India's Health Insurance Reforms. *International Health Economics Association (IHEA)* 2023 Congress, Cape Town, July 2023.

Carlos Rojas Roque and Alfredo Palacios Calcium fortification of water during pregnancy for the prevention of preeclampsia in a low-income setting: a cost-effectiveness analysis. International Health Economics Association (IHEA) 2023 Congress, Cape Town, July 2023.

Pedro Saramago Goncalves Do zero to nothing. Society for Research Synthesis Methodology Annual Meeting, Paris, July 2023.

Helen Weatherly Unit costs: What they are and how they are calculated. Presentation delivered to Unit Cost Programme Research Advisors (members of the public who inform the Programme). Recorded and will be uploaded on to the Unit Cost website once review by Programme Research Advisors is complete, July 2023.

Jessica Ochalek Pricing Strategies in Healthcare: A Deep Dive into Pharmaceutical Value Allocation. Health Intervention and Technology Assessment Program in Bangkok, August 2023.

Jessica Ochalek Accounting for Health Opportunity Costs in Key Decisions in Healthcare Resource Allocation. *National* University of Singapore, August 2023.

Jessica Ochalek Accounting for Health Opportunity Costs in Key Decisions in Healthcare Resource Allocation. *Mahidol University, Bangkok,* August 2023.

Naomi Gibbs Estimating the health impact of waiting for elective surgery in the NHS in England. *Centre for Health Economics Warwick Seminar Series, Warwick,* September 2023.

Paul Revill Investing beyond clinical interventions. *Emirates Health Economics Society (EHES) conference, United Arab Emirates*, September 2023.

Carlos Rojas Roque An introduction to health economics. *National Autonomous University of Honduras*, September 2023.

Jinyang Chen The impact of hospital ranking on healthcare spending. *18th CNES 2023*, *Lisbon*, October 2023.

Ana Duarte and **Marta Soares** (and other) Disaggregating cost-effectiveness results to support decision-making in the evaluation of diagnostic tests with complex

classifications and without a perfect reference standard. 18th CNES 2023, Lisbon, October 2023.

Noemi Kreif Machine learning to answer causal questions: how to avoid misleading interpretation? The CHOICE Institute 5th Annual Research Symposium. University of Washington School of Pharmacy, October 2023.

Andrea Salas Ortiz, Francesco Longo and Karl Claxton Unpacking the Care-Related Quality of Life Effect of England's publicly funded Adult Social Care. A panel data analysis of long-term support users. Workshop on Healthy Ageing and Adult Caregiving organised by London School of Economics and Political Sciences and The University of Pennsylvania, October 2023.

Pedro Saramago Goncalves Do zero to nothing. *18th CNES 2023, Lisbon,* October 2023.

Naomi Gibbs Methods to highlight the equity impact of health interventions. Extended Cost-Effectiveness Analysis applied to an alcohol pricing policy in South Africa. CERGAS: Centre for research on health and social care management, Bocconi University, November 2023.

Shainur Premji and Susan Griffin Wider societal benefits of public health interventions and their impact on distributional cost effectiveness analysis. NIHR Public Health Policy Research Unit (PH-PRU) Autumn 2023 Meeting, November 2023.

Andrea Salas Ortiz, Francesco Longo and Karl Claxton Unpacking the Care-Related Quality of Life Effect of England's publicly funded Adult Social Care. A panel data analysis of long-term support users. 2023 Gateway Long-Term Care Policy Conference, Washington DC, November 2023.

Adriana Castelli (and other) The impact of digital technology on hospital efficiency and performance: Current research knowledge. Italian Health Economics Association (AIES), December 2023.

David Glynn Integrating decision modelling and machine learning. Symposium on Machine Learning for Causal Inference in the Health and Social Sciences, December 2023.

Dina Jankovic, Laura Bojke and **Marta Soares** (and others) Structured Expert Elicitation for Healthcare Decision Making. *Virtual ISPOR Short Course*, December 2023.

Rodrigo Moreno Serra (and other) Health and the Macroeconomy: Research to Support 'More Money for Health' Policies in Central America, Meeting of the Council of Health Ministers of Central America and the Dominican Republic (COMISCA), December 2023.

"More money for health" and "more health for the money"

Council of Ministers of Health of Central America and the Dominican Republic (COMISCA) visit to CHE



Written by Alison K Symington

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he Council of Ministries of Health of Central America and the Dominican Republic (COMISCA) is the health branch of SICA (Sistema de la Integración Centroamericana: Central American Integration System), the Central American equivalent of the European Union or African Union. It is responsible for formulating and proposing regional health policies, strategies and programmes for its member states, helping to ensure the rights of citizens to access good quality health services with universal coverage.

Four members of the COMISCA Executive Secretariat (SE-COMISCA) team visited CHE in February and March. A number of research collaboration discussions were held around the themes of "more money for health" and "more health for the money". Those taking part in the discussions included Naomi Gibbs, Rodrigo Moreno-Serra and Ivan Ochoa-Moreno (CHE), Paulo Monteiro (Economics) and Marc Suhrcke (LISER). These

discussions built upon priority areas for policy-oriented research in Central America, which were identified in El Salvador in January 2023, when members of CHE (Alexandra Rollinger, Ivan Ochoa-Moreno and Paul Revill) visited the SE-COMISCA team.

The discussions on "more money for health" focused on macroeconomic analyses of health expenditure related to progress towards the Sustainable Development Goals (SDGs), a collection of seventeen interlinked objectives balancing social, economic and environmental sustainability adopted by the UN in 2015. Analyses of taxation of sugar-sweetened/alcoholic beverages and unhealthy foods were also considered.

Discussions focused on "more health for the money" included analysis of priority service packages in primary care for the region, economic analysis (financing, effectiveness and cost-effectiveness of policies and interventions) in mental health and healthcare for migrant populations, as well as activities to support capability building in health economics (e.g., training of health economists) in the region.

Central to the visit was the signing ceremony of a Memorandum of Understanding between COMISCA and the University of York, signed by Dr Acuña Navarro, the Executive Secretary of SE-COMISCA, and Professor Karen Rowlingson, Dean of the Faculty of Social Sciences. The Memorandum sets out the framework for establishing a longterm partnership designed to lead to real-world impact in the region, leveraging CHE's expertise in both design and implementation of health policy. Funding options are actively being sought for further collaboration with SE-COMISCA.

See the SE-COMISCA website for more information.

More information on the Thanzi La Onse project

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