Rhys Llewellyn Thomas

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I am a Health Economics Researcher at the Health Economics Research Centre (HERC), University of Oxford, and a Fellow by Special Election at St Edmund Hall, University of Oxford. My research focuses on applying econometrics techniques to questions in Health Economics. Currently, I am working on a Health Foundation grant which aims to better understand the demand for healthcare. I have substantial teaching experience, having taught Microeconomics and Statistics related courses to undergraduates in my previous positions. I am also an Associate Fellow of the Higher Education Academy.

Academic Positions

2024 - <i>Present</i>	Health Economics Researcher - Health Economics Research Centre, University of Oxford
2024 - $Present$	Fellow by Special Election - St Edmund Hall, University of Oxford

2021 - 2023 Early Career Teaching and Research Fellow - St Edmund Hall, University of Oxford

Education

2023	Advancing Teaching and Learning (Advanced HE Associate Fellow) - University of Oxford
2017 - 2022	Ph.D Economics - University of Southampton
2016 - 2017	MSc. Economics (Distinction) - University of Southampton
2013 - 2016	BSc. Economics (First Class Honours) - University of Southampton

Working Papers

Spillover Effects of a Diabetes Diagnosis with Emmanouil Mentzakis

Abstract: Using blood sample data we exploit an arbitrary cut-off of diabetes risk and through a fuzzy regression kink design we causally estimate the effect of a diabetes diagnosis on own and partner health-related behaviours. Diabetes diagnosis increases the probability of exercising and decreases the probability of currently being a smoker, both for those diagnosed with diabetes and their partner. The identification strategy excludes assortative matching as a causal pathway for the spillover effect, with mediation analysis suggesting joint household participation (and not social learning) being the channel behind it. Our results have significant implications for the understanding of the channels that induce behavioural change, and household decision making, as well as, for the evaluation of diabetes related policies.

Abstract: Healthcare coverage expansion is often put forward as a policy to address healthcare access constraints with subsequent improvements in utilization and health outcomes. The socio-economic gradient of health and the disproportionate healthcare costs of lower socio-economic groups suggest the presence of heterogeneous health-related policy effects across the income distribution. Using the Oregon Health Insurance Experiment, we estimate the heterogeneous treatment effects, of receiving health insurance coverage, on healthcare expenditure, earned income and their difference (i.e. disposable income). Estimates suggest that households with higher expenditure benefit more from coverage. While disposable and earned household income increase for the entire distribution, contrary to theoretical expectation, those towards the middle, and not the left hand side, of the distribution benefit the most.

More doctors, better health? with Christopher Millett, Thomas Hone & Ricardo de Sousa Soares

Abstract: Worldwide, there are an insufficient number of primary care physicians to provide accessible, high-quality primary care services. Better knowledge on the health impacts of policies to improve access to primary care physicians is important for informing future policies. Using a generalised synthetic control estimator (GSC), we estimate the effect of the increase in primary care physicians from the Programa Mais Médicos in Brazil. The GSC has advantages over difference-in-difference estimators and estimates a continuous treatment effect. We exploit the variation in physicians allocated to each Brazilian microregion to identify the impact of an increasing Mais Médicos primary care physicians. We explore hospitalisations and mortality rates (both total and from ambulatory care sensitive conditions) as outcomes. Our analysis differs from previous work by estimating the impact of the increase in physician numbers, as opposed to the impact of the policy itself. We examine the impact on hospitalisations and mortality rates and employ a panel dataset with monthly observations of all Brazilian microregion over the period 2008-2017. We find limited effect of increases in primary care physicians impacting health outcomes - with no significant impact of the Programa Mais Médicos on hospitalisations or mortality rates. Potential explanations include substitution of other health professionals, impacts materialising over the longer-term, and poor allocation of Mais Médicos physicians.

Teaching Experience

St Edmund Hall, University of Oxford - Tutor

October 2021 - Present

At St Edmund Hall I am a tutor for microeconomics focused undergraduate papers. Since joining St Edmund Hall I have been a tutor for the following papers:

- Economics Prelims Probability and Statistics (2022 & 2023)
- Core Microeconomics (2021 & 2022)
- Public Economics (2021 & 2022)
- Labour Economics and Inequality (2023)

Average Module Evaluation: 4.3/5

Over the course of my PhD studies I was a demonstrator and teaching assistant for various modules on a range of topics. My teaching evaluations have been excellent throughout that time. In 2020 and 2021, I was also required to teach courses online, and record seminars. I was also the lead module lecturer for the masters module "Health economics and policy" in 2020. The course was aimed at MSc. Public Health students whom have had limited exposure to economics beforehand. The course covered the fundamentals of economics and the main contributions to the field of health economics. For this module I gave weekly lectures, structured the module syllabus, compiled module material, and wrote the module assessments. Taught the following modules:

- Health economics and policy (2020)
- Undergraduate Dissertation (2017, 2018, 2019 & 2020)
- Applied Microeconomics 3 (2019 & 2020)
- Masters Dissertation (2019 & 2020)
- Quantitative Modelling in Economics (2019)
- Foundations of Microeconomics (2017 & 2018)
- Principles of Microeconomics (2017 & 2018)

Average Module Evaluation: 4.4/5

Additional Experience

Department for Education - Higher Economic Assistant

December 2018 - April 2019

At the Department for Education I worked on two main projects:

- <u>Timpson review of school exclusion technical note:</u> The analysis in aimed to estimate non-causal associations between a number of school and pupil characteristics and the probability of being excluded. Published report available at <u>this link</u>.
- School-level factors associated with disadvantaged pupil performance: This project involved using statistical learning techniques to analyse the factors most associated with disadvantaged pupil performance.

Additional Activities & Responsibilities

Conferences: PhD-EVS Seminar Series (2021)

Royal Economic Society Conference (2021) XXV AIES National Conference (2020)*

30th Congress of the European Economic Association (2020) European Health Economics Association Conference (2020)*

ALdE XXIII Applied Economics Meeting $(2020)^*$

ESRC South Coast DTP Final Year Conference (2019)

Economics PhD Workshop, University of Southampton (2018)

Family Finance Surveys User Conference (2017)

*Conferences I was accepted to but was not able to attend due to the COVID-19 pandemic.

Presentations: Nova School of Business and Economics (2023)

Department of Applied Economics, HEC Montréal (2023)

Academic Unit of Health Economics, University of Leeds (2022)

Virtual Seminar on the Economics of Risky Health Behaviors, Cornell University (2021)

Public Health Policy Evaluation Unit, Imperial College (2019)

Referee Experience: Social Science and Medicine (2024)

PLOS ONE (2021 & 2022)

SSM - Population Health (2020)

Heylion (2018)

Administrative Economics Organising Tutor (2022 & 2023)

Responsibilities: St Edmund Hall Sustainability Sub-Committee (2022 & 2023)

Economics Sub-Faculty Committee (2021, 2022 & 2023) St Edmund Hall Tutorial Committee (2021, 2022 & 2023) Undergraduate Admissions for PPE and E&M (2021 & 2022)

Lead PPE Admissions Tutor (2022)

College Advisor to Postgraduate Students (2021, 2022 & 2023)

St Edmund Hall Economics Discussion Event Organiser (2021 & 2022)

Internal PhD Seminar Series organiser (2018, 2019 & 2020)

Undergraduate Economics Programs Validation Student Representative (2020)

1st Southampton Applied Workshop Co-organiser (2019)

Postgraduate Taught Economics Programs Validation Student Representative (2018)

SCDTP Final Year Conference Organiser (2017)

Other Competencies

Languages: English (native), Welsh (native).

Software Skills: Stata (Advanced), IATEX(Advanced), R Statistics (Intermediate).