Arianna Gentilini

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Education

2020 – present	ESRC-funded Ph.D. candidate, Health Policy and Economics Provisional dissertation title: "The role of patient organisations in innovation and access in the rare disease space" Supervisors: Dr. Panos Kanavos, Prof. Alistair McGuire London School of Economics and Political Science
2017 – 2018	 M.Sc., International Health Policy and Health Economics, with distinction Dissertation title: "Physical activity, diet or both to improve type 2 diabetes mellitus risk factors in diabetic and prediabetic adults: a network meta-analysis and microsimulation analysis" London School of Economics and Political Science

Employment

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Medical Technology Research Group

B.Sc., International Economics, with honours

Università degli Studi di Padova

2020 - present2018 - 2020 London School of Economics and Political Science Senior Researcher Research Assistant

- Investigating factors behind misalignment between country reimbursement decisions and European Society of Medical Oncology ratings for oncology pharmaceutical products
- Developed and analysed a database of compound-indication pairs, integrating HTA recommendation and funding decision data from national online databases
- Examined factors affecting reimbursement decision timelines and decisions employing survival analysis and multinomial logistic regression techniques across a range of OECD countries
- Submitted manuscripts for publication in high-impact peer-reviewed journals

London Centre for Health Economics and Policy Innovation

Imperial College Business School

2021 – 2022 *Visiting Fellow*

- Collaborated with Professor Marisa Miraldo on a research project investigating the influence of rare disease patient organisations on medical innovation
- Analysed a large panel of over 1.5 million observations, incorporating external data from primary and secondary sources
- Utilized robust econometric techniques to empirically estimate the impact of patient organisations' advocacy on R&D in rare diseases

London

2013 - 2016

London

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2021 - 2022 2020 - 2021

Dolon Limited

Consultant

Senior Analyst

 Led policy project on combination pricing in oncology focusing on novel-novel combinations

- Drafted narratives and propositions to communicate orphan products' value and support P&R submissions across a wide range of indications, including myelofibrosis, Pompe and Fabry diseases
- Supported in the preparation, facilitation and reporting of advisory boards and workshops aimed at assessing payers perception of products' value propositions and evidence packages to advise launch strategies

London

Symmetron Limited

2019 - 2020 2018 - 2019

Associate Health Economist

Health Economist

- Adapted as well as developed from scratch budget impact and costeffectiveness models for global headquarters and local country affiliates in various therapeutic areas including respiratory diseases, oncology and depression
- Supported pharmaceutical companies in the reimbursement submission to health technology assessment authorities in Europe and China and in the postsubmission phase
- Interviewed key opinion leaders and conducted targeted literature reviews to collect health-related quality of life data, healthcare resource use and unit costs for country adaptations
- Prepared draft manuscripts and posters for peer-reviewed publications and international conferences

London

S&P Global

2018 - 2018

Life Sciences Intern

- Conducted a systematic review and network meta-analysis aiming at quantifying the expected benefits of physical activity alone or combined with a healthy diet in improving cardiovascular risk factors
- Updated with the network meta-analysis' results the Disease Prevention Microsimulation Model, a Markov model that predicts the likelihood of a specific disease in a certain population as well as valuing the impact of a drug or prevention program, using R

Short-term consultancies

Washington, D.C. V

World Bank

(Remote)

2023

- Conducted a literature review on how pharmaceutical services have been leveraged for NCD service delivery in LMICs
- Developed and analysed results from a pharmacist survey to gather insights on competencies readiness for delivering WHO PEN interventions in Zambia
- Drafted a policy paper summarizing evidence on how pharmaceutical services can be deployed to deliver NCD interventions in Zambia, Congo and Senegal

London

The Health Policy Partnership

2022

- Conducted a literature review to understand the policy landscape for Wilson's disease at the national level in France and Italy
- Drafted two country spotlight reports providing an overview of Wilson's disease unmet need in the country, policy gaps and challenges that may exist

Teaching

Seminar Leader London School of Economics

Introduction to Quantitative Analysis (2021-22) Intermediate Quantitative Analysis (2021-22) Pharmaceutical Economics and Policy (2023-2024)

Imperial College

Research Methods & Practice (2022-23)

Quantitative Methods (2022-23)

Health Economics (2023, marking only) Health Care Financing (2023, marking only)

Class Teacher

LSE Health

Market Access Academy, in collaboration with BCG (2023)

Publications

PEER-REVIEWED ARTICLES

Gentilini A, Miraldo M (2023). The Role of Patient Organisations in Research and Development: Evidence from Rare Diseases. Social Science & Medicine. https://doi.org/10.1016/j.socscimed.2023.116332

Kanavos P, Visentin E, **Gentilini A** (2023). Algorithms and heuristics of health technology assessments: A retrospective analysis of factors associated with HTA outcomes for new drugs across seven OECD countries. Social Science & Medicine. https://doi.org/10.1016/j.socscimed.2023.116045

Gentilini A, Parvanova I (2023). Industry Funding of Patient Organisations in the United Kingdom: A Retrospective Study of Commercial Determinants, Funding Concentration and Disease Prevalence. BMJ Open; http://dx.doi.org/10.1136/bmjopen-2022-071138

Rinciog C, Diamanthopulos A, **Gentilini A,** Bondue B, Dahlqvist C, Froidure A, Wuyts WA, Soulard S (2019). The Cost-Effectiveness of Nintedanib Versus Pirfenidone in Idiopathic Pulmonary Fibrosis in Belgium. PharmacoEconomics Open. https://doi.org/10.1007/s41669-019-00191-w

REPORTS AND ABSTRACTS

Parvanova I, **Gentilini A**, Cushing J, Naci H (2023). Safeguarding NICE from patient groups' conflicts of interest. BMJ; https://doi.org/10.1136/bmj.p1243

Kamphuis B, Fontrier AM, Haig M, Politopoulou K, Salyga H, **Gentilini A**, Kanavos P (2022). Development of policies to increase headroom for innovation in Egypt and the Kingdom of Saudi Arabia. Available on <u>LSE Consulting website</u>.

- Neez E, **Gentilini A**, Hutchings A (2021). Addressing unmet needs in extremely rare and paediatriconset diseases: how the biopharmaceutical innovation model can help identify current issues and find potential solutions. Available on <u>EFPIA website</u>.
- **Gentilini A**, Sawyer L, Langford B, Salih F, Murphy J. Cost-Effectiveness of Vagus Nerve Stimulation for Treatment-Resistant Depression in the United Kingdom (2020). Value in Health, Volume 23, S587. https://doi.org/10.1016/j.jval.2020.08.1097
- Neez E, **Gentilini A**, Dutton R, Hutchings A. Estimated impact of EU Orphan Regulation on incentives for innovation (2020). Available on <u>Dolon website</u>.
- LeReun C, **Gentilini A**, Large S, Chowdury MHR, Smith TA, Rinciog C (2019). Network metaanalysis comparing palbociclib plus fulvestrant with everolimus plus exemestane for HR+/HER2advanced breast cancer that has become resistant to previous endocrine therapy. Value in Health, Volume 22, S446. https://doi.org/10.1016/j.jval.2019.09.252

Conferences and seminars

- **Gentilini A,** Miraldo M. "The Role of Patient Organisations on Research and Development: Evidence from Rare Diseases", Accepted poster presentation, American-European Health Economics Study Group, 6-7 July 2023. Harvard Kennedy School, Cambridge MA, USA.
- **Gentilini A,** Lombe K. "Leveraging pharmaceutical services to enhance NCD service delivery in LMICs: Insights and experiences from Zambia", Accepted poster, World Non-Communicable Diseases Congress 2023, 26 June 2023. Toronto, Canada.
- **Gentilini A**, Parvanova I. "Industry Funding of Patient Organisations in the United Kingdom: A Retrospective Study of Commercial Determinants, Funding Concentration and Disease Prevalence", Invited speaker, The Connaught Global Challenge Award Seminar Series Presents, WHO Collaborating Center for Governance, Accountability and Transparency in the Pharmaceutical Sector, 2 March 2023, Toronto, Canada (Virtual).
- **Gentilini A**. "Orphan drugs: current policies, challenges and future trends", Invited speaker, University of Bari Department of Economics Seminar Series, 29 November 2021, Bari, Italy (Virtual).

Media coverage

Shanti Das and Jon Ungoed-Thomas. Revealed: drug firms funding UK patient groups that lobby for NHS approval of medicines, The Observer, 23 July 2023 (Research referenced and quoted).

Languages & IT Skills

Languages: English (fluent), Italian (native), French (intermediate), and Spanish (Intermediate)

Computer Languages and Software: STATA, R, Excel, LaTeX, Endnote, WinBUGS, Grafula, DistillerSR, RevMan, WordPress, PollEV, NVivo

Professional services

Ad-hoc reviewer BMJ

Health Policy