

Education

- 2017 – 2019 **London School of Hygiene and Tropical Medicine**
MSc Epidemiology, *Distinction*
- 2012 – 2015 **University College London**
BA Geography, *First Class Hons.* 2015 Deans' List; Human Geography Dissertation Prize; 2012 College Prize. Erasmus placement: United Nations University, Germany
- 2010 – 2012 **Hills Road College** *A levels:* Geography (A*); Psychology (A); Spanish (A)
- 2005 – 2010 **Stephen Perse Secondary** *GCSEs:* 9 (A*-A); Advanced ECDL

Research experience

- 2021-*present* **London School of Hygiene and Tropical Medicine**
European COVID-19 Forecast and Scenario Modelling Hubs *Research assistant*
- From February 2021, adapted existing infrastructure, including software in R and Python, to create a platform for collating, combining, and evaluating weekly real-time forecasts of COVID-19 outcomes across 32 European countries. Coordinated and analysed forecasts from up to 40 research teams across Europe.
 - From February 2022, also initiated and led development of the European Scenario Hub (co-PI), with an emphasis on coordinating with policy advisors at the European Centre for Disease Prevention and Control to address specific public health management questions for up to 12 months ahead. Coordinated up to 20 research teams, facilitating bi-weekly technical meetings, interpreting across modelling approaches, translating results into policy relevant insights.
- 2020-2021 **London School of Hygiene and Tropical Medicine**
Centre for Mathematical Modelling of Infectious Disease *Research assistant*
- Contributed to modelling work informing UK COVID-19 policy, including rapid responses to weekly policymaker commissions via the Scientific Pandemic Influenza Modelling group (SPI-M). Lead author on 4 and co-author on a further 18 SPI-M evidence submissions. Work focussed on estimating and the reproduction number, maintaining an open source production pipeline for twice-weekly forecasts, and the impact of biases in outbreak surveillance data.
 - Implemented forecasting methods for COVID-19 outcomes, maintaining a range of simple and complex models and ensemble forecasts for weekly COVID-19 deaths across 52 US states, contributing to the US Forecast Hub.
 - Contributed to the R package `covidregionaldata`, an interface for public COVID-19 data at a sub-national level, with work including auditing, extracting, cleaning, and standardising public data from 17 countries.
 - Supported researchers and public health agency users of specialist software for estimating and forecasting from the effective reproduction number.
- 2019-2020 **London School of Hygiene and Tropical Medicine**
“A multidimensional analysis of risk of dengue in the Philippines” *PhD upgrading*
- Successful MPhil to PhD upgrading, with completed and planned work investigating the burden of dengue in the Philippines focussing on transmission intensity and healthcare access. Included statistical modelling

from a six-year national surveillance dataset of 1.2 million patient records.

Research funding

- 2023 Centre for Epidemic Preparedness Resource Prize
Funding prize for development of the European COVID-19 Modelling Hubs
- 2023 COVID-19 Response Fund
Funding for 3 months' full time independent research work
- 2022 European Centre for Disease Prevention and Control
co-Investigator, The European COVID-19 Scenario Modelling Hub
- 2017 Medical Research Council, London Intercollegiate Doctoral Training Partnership Studentships
PhD, Quantitative Skills for Large Data Sets theme

Non-academic experience

- 2018 **United Nations Environment Programme** International Resource Panel *Intern*
[3 months] Explored international funding landscape for scientific research on natural resource sustainability; resulted in multi-million euro funding relationship.
- 2015 – 2017 **Wellcome Trust** Graduate Programme *Trainee*
Trained in three functions of global health research and funding, including evaluating areas of research to develop executive board recommendations for high impact funding. This included informing a funding scheme linking climate change and health as part of a £30m funding strategy, and a new priority area of funding for mental health research. Responsibilities included literature reviews, expert interviews, and grants database analysis. I also spent 9 months working in the investments team as an equity analyst focused on public markets research.
- 2014 **Wellcome Trust** Investments *Intern*
Trained across financial portfolio management, including quantitative portfolio analysis, public markets and trading, and private equity.
- 2014 **Geology for Global Development** *Research & teaching assistant*
- 2012 – 2014 **University College London** *Tutor, Geography*

Skills

Research methods and software

- Advanced training in quantitative methods for health and social science research; experience in qualitative and mixed methods research.
- Extensive experience using R in all elements of research, including data extraction, transformation, analysis, and reporting with Rmarkdown.
- Experience creating and maintaining R package; working use of Python, STATA.
- Proficient using Git for version control, continuous integration, and automation using Github actions, and high performance computing using Microsoft Azure.

Collaboration and communication

- Strong experience coordinating large international collaborations, excellent skills in transcultural meeting facilitation in both technical and non-technical contexts.
- Effective grant and project management, planning for and meeting deliverables.
- Excellent communication skills, with experience for academic journals, policy briefs, strategy recommendations; experience presenting in academic, policy, and private sectors.

Languages

- Conversational Spanish (B2) and French (B1), basic Hindi (<A1)

Publications

Ordered by author contribution:

- First author or equally contributing first author (*) [1–3]
 - Second author [4–6] or substantial role in group authorship [7]
 - Other contributing role in group authorship [8–11]
 - Excludes named but non-contributing group authorship roles, including CMMID COVID-19 Working Group
1. Sherratt K *et al.* 2023 Predictive performance of multi-model ensemble forecasts of COVID-19 across European nations. *eLife*, 12:e81916 (doi.org/10.7554/eLife.81916)
 2. Sherratt K*, Abbott S*, Meakin SR, Hellewell J, Munday JD, Bosse N, Jit M, Funk S. 2021 Exploring surveillance data biases when estimating the reproduction number: with insights into subpopulation transmission of COVID-19 in England. *Philos. Trans. R. Soc. B Biol. Sci.* **376**, 20200283. (doi:10.1098/rstb.2020.0283)
 3. Palmer J*, Sherratt K*, Martin-Nielsen R, Bevan J, Gibbs H, Group CC-19 W, Funk S, Abbott S. 2021 covidregionaldata: Subnational data for COVID-19 epidemiology. *J. Open Source Softw.* **6**, 3290. (doi:10.21105/joss.03290)
 4. Abbott S, Sherratt K, Gerstung M, Funk S. 2022 Estimation of the test to test distribution as a proxy for generation interval distribution for the Omicron variant in England. *MedRxiv* (doi:10.1101/2022.01.08.22268920)
 5. Abbott S, Sherratt K, Bosse N, Gruson H, Bracher J, Funk S. 2022 Evaluating an epidemiologically motivated surrogate model of a multi-model ensemble. *MedRxiv* (doi:10.1101/2022.10.12.22280917)
 6. Munday JD, Sherratt K, *et al.* 2021 Implications of the school-household network structure on SARS-CoV-2 transmission under school reopening strategies in England. *Nat. Commun.* **12**, 1942. (doi:10.1038/s41467-021-22213-0)
 7. Pavelka M, Van-Zandvoort K, Abbott S, Sherratt K, Majdan M, Covid C, Flasche S, Funk S. 2021 The impact of population-wide rapid antigen testing on SARS-CoV-2 prevalence in Slovakia. *Science* **372**, 635–641. (doi:10.1126/science.abf9648)
 8. Cramer EY, ... Sherratt K, ... *et al.* 2021 The United States COVID-19 forecast hub dataset. *medRxiv* (doi:10.1101/2021.11.04.21265886)
 9. Cramer EY, ... Sherratt K, ... *et al.* 2022 Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the United States. *Proc. Natl. Acad. Sci.* **119**, e2113561119. (doi:10.1073/pnas.2113561119)
 10. Abbott S, ... Sherratt K, ... *et al.* 2020 Estimating the time-varying reproduction number of SARS-CoV-2 using national and subnational case counts. *Wellcome Open Res.* **5**, 112. (doi:10.12688/wellcomeopenres.16006.1)
 11. Meakin S, ... Sherratt K, ... *et al.* 2022 Comparative assessment of methods for short-term forecasts of COVID-19 hospital admissions in England at the local level. *BMC Med.* **20**, 86. (doi:10.1186/s12916-022-02271-x)