Robert Smith

PhDc · Public Health, Economics & Decision Science
School of Health and Related Research (ScHARR), University of Sheffield
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Health economist and statistical programmer focused on the application of health economics and data science methods to public health decision problems. Currently funded by the Wellcome Trust and University of Sheffield.

Education

PhDc Public Health, Economics & Decision Science — *Sheffield, United Kingdom*
School of Health and Related Research (ScHARR), University of Sheffield — *09/2018–05/2021(exp)*

Four-year Phd at the Wellcome Trust funded Doctoral Training Centre for Public Health, Economics and Decision Science.

PhD topic: Health economic evaluation of population level physical activity interventions

Supervisors: Prof. Elizabeth Goyder, Dr. Hazel Squires, Dr. Chloe Thomas

MSc in Applied Economics — *Nottingham, United Kingdom*
School of Economics, University of Nottingham — *09/2012–08/2013*

Funded by a scholarship for exceptional undergraduate dissertation.

BA (Hons) in Economics — *Nottingham, United Kingdom*
School of Economics, University of Nottingham — *09/2009–07/2012*

Awarded MSc scholarship based on dissertation (top 3 in class)

Experience

Director and Analyst — *Sheffield, United Kingdom*
Dark Peak Analytics — *04/2019–ongoing*

Collaboration with Dr Paul Schneider providing expertise in health economics, statistics, data science and public health. We have previously worked with the WHO (Audiology, Reproductive Health and Physical Activity), PharmacoEconomic consultancy companies, and with charities including parkrunUK. We provide training on data-science for health research. For more information on expertise and a list of publications see www.darkpeakanalytics.com.

Expert Advisor / Core Group Member — *Zurich, Switzerland*
World Health Organisation HEAT — *07/2018–ongoing*

Initiated and led a research project developing the methods used in the WHO Europe's Health Economic Assessment Tool for walking and cycling. Identified a new approach to estimating the monetary benefit of increased population physical activity. Joined the Core Group as an expert advisor in November 2020 for worldwide tool development.
Advisors: Sonja Kahlmeier, Thomas Gotschi.

Health Economist — *Newcastle, United Kingdom*
Newcastle University — *04/2016–10/2016*

I was responsible for the development of a large scale contingent valuation exercise, the results of which are to be used to feed into a resource allocation priority setting exercise for NHS England Dentistry. Project ongoing with publications under review.
Supervisors: Chris Vernazza, John Wildman

Research Assistant (Health Services Research) *Nottingham, United Kingdom*

University of Nottingham Business School *09/2014–04/2016*

Health economist primarily focused on health services research, in particular the GP Access Scheme. Results of the evaluation were presented to NHS England and the House of Commons Health Select Committee.
Supervisor: Paul Windrum

Associate, Financial Audit *East Midlands, United Kingdom*

PriceWaterhouseCoopers (PwC) *10/2013–08/2014*

Associate in the Financial Audit department working with a wide variety of clients in the UK, including Experian, Molson Coors and Gala. Experience working with CFOs in a variety of sectors across the midlands region.

Teaching

University of Sheffield *Sheffield, United Kingdom*

Short Course Lead and MSc module Examiner *10/2017–ongoing*

I am a tutor an examiner for Sheffield University's Health Economics and Decision Science MSc and a tutor in medical statistics. I have created and taught several short courses and workshops on the use of data-science for health research, best practices in open science publishing and the use of R-Shiny for health economics.

Research Output

Peer reviewed Journal Articles

Smith R, Schneider PP, Making health economic models Shiny: A tutorial. Wellcome Open Res 2020, 5:69 https://doi.org/10.12688/wellcomeopenres.15807.1

Smith R, Schneider P, Bullas A et al. Does ethnic density influence community participation in mass participation physical activity events? The case of parkrun in England. Wellcome Open Res 2020, 5:9. https://doi.org/10.12688/wellcomeopenres.15657.1

Schneider, P.P., Smith, R.A., Bullas, A.M., Bayley, T., Haake, S.S., Brennan, A. and Goyder, E. 2020. Multiple deprivation and geographic distance to community physical activity events — achieving equitable access to parkrun in England. Journal of Public Health. 48;53(189). 0.1cm

Vernazza C, Carr K, Gray J, Holmes R, Exley C, Wildman J, Smith R, Donaldson C. Resource allocation in NHS dentistry: recognition of societal preferences (RAINDROP): study protocol. BMC Health Serv Res 18, 487 (2018). https://doi.org/10.1186/s12913-018-3302-8

Under Peer Review

Smith R, Schneider P, Cosulich R. et al. Reducing socioeconomic inequalities in access to and participation in community-based running and walking activities: a longitudinal ecological study of parkrun events 2010 to 2019.

Smith R, Thomas C, Squires H, Gotschi T, Kahlmeier S, Goyder E. Impact of different valuation approaches in health economic assessments of transport-related physical activity: a case study using the HEAT.

Carr K, Donaldson C, Wildman J, Smith R, Vernazza C. An examination of consistency in the incremental approach to willingness to pay: evidence using societal values for NHS dental services.

Carr K, Donaldson C, Wildman J, Smith R, Vernazza, C. Exploration of the incremental willingness to pay using societal dental interventions and a new approach to £0 values.

Smith R, Thomas C, Squires H, Goyder E. A comparison of WHO-HEAT model results using a non-linear physical activity dose response function with results from the existing tool.

Other

Website Schneider PP, Smith RA, Bullas AM, Bayley T, Haake SSJ, Brennan A, Goyder E. Identifying Optimal Locations for Maximising Access to parkun – Interactive online map. 2019. http://iol-map.shef.ac.uk/.

Public Engagement Podcast attendance with 'Free Weekly Timed Podcast' to discuss research undertaken with parkrunUK.

For a full list of presentations and publications see https://www.darkpeakanalytics.com/talks-media

Skills

Methods	CEA, BIA, Markov Models, DES, Microsimulation, Survival Analysis, Geo-spacial Analysis, Parametric and Structural Uncertainty Analysis.
Programming	R, STATA, Excel VBA, Simul8, Git/Github, SQL, (R)C++
Dissemination	Markdown, LaTeX, HTML, CSS, Shiny, AWS, Open Access Academic Publishing
Teaching	R, Health Economics, Discrete Event Simulation, Epidemiology, Statistics, Git, Transparent Research
Languages	English (fluent), French (basic)