

Social Research Call 2020

Selected projects

Title: Understanding the spatio-temporal social determinants of health to improve agent-based modelling of recurrent COVID-19 outbreaks

Acronym: COVID-SHINE

Project leader: Joan Benach Rovira

Host organisation: Universitat Pompeu Fabra (UPF)

Main purpose of the project: To analyze the dynamics and social causes of COVID-19 and to recommend policies to address the pandemic.

Design/methodology/approach: To use a transdisciplinary integrated complex system approach including conceptual theoretical frameworks, multi-level case-control analyses of aggregated area indicators in Catalonia, mathematical modelling strategies to evaluate complex causal effects, and 'what if' scenarios to develop an integrated policy framework.

Potential results: To gather evidence on the role of social determinants of health at the individual and small-area level on the cumulative COVID-19 incidence and health inequalities; to predict the spatio-temporal dynamics and the social causes of the pandemic; and to guide policy recommendations, especially emphasizing the reduction of health inequalities.

Social relevance of the research (50 words max.): To predict and explain recurrent COVID-19 outbreaks; to understand the social impacts of the pandemic on health inequalities; to raise awareness on the role of social determinants of health inequalities; to set up public health policy recommendations for preventing new pandemics; and to draw lessons for other countries.

Originality/value of the project (50 words max.): Innovative systems science framework to understand the multilevel dynamics of the pandemic through the analysis of understudied social factors encompassing existing and novel data; enhancing mathematical simulations of the pandemic to evaluate complex causal effects and scenarios; and building causal loop diagrams to suggest key policy interventions.