

# Using mathematical models to generate better pandemic insights

**Adam Kucharski**<sup>1</sup>

<sup>1</sup> London School of Hygiene Tropical Medicine

During the COVID-19 pandemic, it has been crucial understand the characteristics of the novel virus and the dynamics of its transmission and control. Mathematical modelling has played a central role in developing this understanding, from estimating key early epidemiological values such as outbreak size, infection transmissibility and severity of resulting disease, to evaluating the potential effectiveness of control measures, including contact tracing and social distancing measures. As well as the challenge of modelling the pandemic, there is also the accompanying challenge of ensuring that research is fast, open, collaborative and peer-reviewed. This talk will give an overview of the modelling analysis conducted at the London School of Hygiene Tropical Medicine, and efforts to make this research rapid, transparent and useful in real-time.