

Responding to a Pandemic Influenza

Andre Charlett(andre.charlett@phe.gov.uk)

Public Health England

Abstract

In terms of likelihood and impact, the emergence of a novel pandemic strain of influenza sits at the top of the UK Governments national risk register of civil emergencies [1]. Therefore, national institutes of public health such as Public Health England (PHE) are required to plan for a pandemic.

During the initial stages of a pandemic it is critical to obtain an understanding of the severity of the emerging virus to ensure that health policy is set accordingly. This involves estimation of the reproduction number, case fatality ratios, and hospitalisation rates. As community transmission becomes widespread models that enable estimation of current clinical attack rates, healthcare burden, and short-term forecasts are required to both inform countermeasures and plan healthcare provision.

This talk will outline the current methodologies available at PHE to ensure preparedness, describing some of the challenges identified.

Keywords: *Public Health, Emerging infectious diseases, Pandemic, Influenza, Modelling, Outbreaks, Pandemic*

References

- [1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/644968/UK_National_Risk_Register_2017.pdf

Biography

Andre Charlett has worked in the Statistics, Modelling, and Economics Department of the National Infection Service for the past 25 years, being the Department Head for the past 17 years. His research interests include the evaluation of interventions to control infectious diseases, development of statistical algorithms to detect the emergence of outbreaks, and the role of the gastric microbiome in neurological diseases.