

LSGI Research Seminar

The impacts of public health interventions and weather conditions on controlling COVID-19 outbreaks in Hong Kong: using modelling approaches

Date: 4 May 2022 (Wed)

Time: 15:00 - 16:00

Venue: online @ Zoom

Language: English

Bio:

Dr Sean Hsiang-Yu Yuan is an assistant professor in the Department of Biomedical Sciences and Centre for Applied One Health Research and Policy Advice at City University of Hong Kong, leading the Infectious Disease Modelling Group. Dr. Yuan received his PhD at Duke University with a focus on influenza evolution. During his postdoctoral training, Dr. Yuan worked on the impact of the herd immunity of influenza on its seasonal outbreaks at the MRC Centre for Global Infectious Disease Analysis, Imperial College London with Prof. Steven Riley.

Abstract:

Hong Kong, as mainland China, Taiwan and New Zealand has been adopting zero COVID-19 policy in the past few years; hence, population immunity from natural infections was low. How booster doses along with interventions and seasonal factors can effectively control the outbreak by Omicron in these countries remains unknown. Hong Kong, has been struggled in managing the fifth wave caused by Omicron initially, leading to an excess number of deaths. But the outbreak begins decline few weeks after social distancing tightening and rapid antigen test (RAT) kits were used. We extended a model with stratified immunity to incorporate empirical results of antibody responses from people taking Coronavac or BioNTech and effects of other interventions. The model quantified the impacts of social distancing regulations, RAT, vaccine booster and seasonal factors on the cumulative incidence.

All are welcome. To register, please [click here](#) for the details.

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