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Will the vaccination strategies for monkeypox prevent outbreaks at gatherings? —a case study in Canada

The outbreaks of monkeypox in non-endemic countries have led the World Health Organization to declare a Public Health Emergency of International Concern. Festivals, parties, and other gatherings may have contributed to the outbreak, particularly in the post-pandemic period. Public health has prepared vaccines in case of larger gatherings. In this talk, I will present a modelling study on how and if vaccination strategies combined with other public health measures can prevent or contribute to mitigating or halting outbreaks from mass gathering events. Working with public health agencies, we establish dynamic models to mimic the spreading of the virus in human populations and distinguish the human population into higher and low-risk groups. I will present the public health measures essential to mitigate the spread and prevent potential future outbreaks at gatherings. This is joint work with the Public Health Agency of Canada and supported by CDM and OMNI-RÉUNIS, one health modelling network of Canada.