Case importation and community spread: post-pandemic control of the spread of SARS-CoV-2 in low density populations

Dr. James Watmough [1]

It has been just over one year and 100 million cases since we first heard of a novel coronavirus with pandemic potential. We are now all far too familiar with epidemic curves and would very much like to see the tail of this one. In this talk, I will review the simple mathematical models for the transition from pandemic to endemic and what they tell us about this tail.

For the past year, Canada has kept case numbers relatively low through a combination of community quarantine and travel restrictions. In theory, this has implications for how we approach and manage the new normal of endemic SARS-CoV-2. I will focus on what this might mean for Atlantic Canada.

Speaker Biography:

James Watmough obtained his PhD in Mathematics with the Institute of Applied Mathematics at the University of British Columbia and is now a Professor in the Department of Mathematics and Statistics at the University of New Brunswick. He has been a member of the Canadian Centre for Disease Modelling (http://www.cdm.yorku.ca/) since its inception and more recently, a member of the Canadian COVID-19 Math Modelling Task Force (http://www.fields.utoronto.ca/activities/Mathematical-Modelling-COVID-19). His research interests include mathematical modelling of ecological systems with a focus on the role of heterogeneity in the spread of infectious diseases, biological invasions, and more recently virus and immune system dynamics.

---

[1]University of New Brunswick Mathematics and Statistics, Fredericton, NB, E3B5A3, Canada (watmough@unb.ca).