Session 54: The Role of Human Movement on the Spread of Mosquito-borne Diseases

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Mosquitos are known for being a source of infectious diseases and are a cause of great concern within the public health community. As traveling has become more accessible, diseases such as malaria have surfaced in areas in which it has not been previously detected. Additionally, factors such as mobility patterns, environmental changes, and local transmission characteristics play an important part in the disease dynamics. Thus, a better understanding of mosquito-borne diseases is needed to determine the best course of action to undertake this serious threat. In this talk, we will explore how epidemiological and ecological features influence mosquito-borne diseases via a multi-patch compartmental model. The objective of this talk is to present analytical tools and methodology to help discern how human mobility and regional attributes combine to impact disease dynamics.

In Special Session 54 on Emergence, Spread, and Control of Mosquito-borne Diseases: Insights from Mathematical Modeling at the Mathematical Congress of the Americas 2025.

MCA 2025 internal code: SS54-T05