

1145-AA-2641      **Gerardo Chowell\*** (gchowell@gsu.edu), Downtown Atlanta, Atlanta, GA 30033. *Mathematical and statistical approaches for forecasting Infectious Disease Epidemics Using Dynamic Modeling.*

Mathematical modeling offers a powerful toolkit to improve our understanding of infectious disease transmission and control. The increasing use of mathematical models for epidemic forecasting has highlighted the importance of designing reliable models that capture the baseline transmission characteristics of specific pathogens and social contexts. More refined models are needed however, in particular to account for variation in the early growth dynamics of real epidemics and generate improved forecasts. I will present recent disease forecasting efforts in the context of Ebola and Zika epidemics and review recent progress on modeling and characterizing early epidemic growth patterns from infectious disease outbreak data. (Received September 25, 2018)