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*Effects of Time-line Uncertainty in Infectious Disease Modelling*

Because of the complexity of infectious disease systems, one often makes simplifying assumptions in their modeling process. These assumptions, while computationally convenient, could lead to a poorly fitted model. We can account for data uncertainty explicitly but this may cause computational problems. A simulation study was performed to ascertain the effects of ignoring timeline uncertainty. Results will be presented that quantify the trade-off between model inferential quality and computational-time, using a family of discrete-time heterogeneous infectious disease models known as individual-level models. Modeling approaches will vary from those under 'fixed data' assumptions to those under a 'full data augmentation approach'.