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Yanyu Xiao* (yanyu.xiao@uc.edu), Pobox 210025, Cincinnati, OH 45221. *A computational model to evaluate outcomes of various vaccine strategies.*

In this work, we investigated the impact of early vaccination on age-specific attack rates and evaluate the outcomes of different vaccination strategies that are influenced by the level of single or two-dose vaccine-induced protections. We developed and parameterized an individual-based model for two population demographics of urban and remote areas in Canada. Our results demonstrate that there is a time period before and after the onset of epidemic, during which the outcomes of vaccination strategies may differ significantly and are highly influenced by demographic characteristics. (Received September 19, 2016)