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Zhisheng Shuai* (shuai@ucf.edu), University of Central Florida, Orlando, FL 32816, **Marisa C. Eisenberg**, University of Michigan, **Joseph H. Tien**, Ohio State University, and **Pauline van den Driessche**, University of Victoria. *Mathematical Studies of Heterogeneous Cholera Models.*

Cholera was one of the most feared diseases in the 19th century, and remains a serious public health concern today. It can be transmitted to humans directly by person-to-person contact or indirectly through ingestion of contaminated water. Basic cholera models that include both direct and indirect transmission and assume homogeneous mixing in the host population will first be reviewed. Detailed models that incorporate spatial heterogeneity will be applied to understand cholera dynamics on community networks. New biological insights will be derived using results from matrix theory and graph theory. (Received February 03, 2015)