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**Vincent J. Jodoin\*** (vjodoinjr@gmail.com), University of Tennessee, Knoxville, TN 37996, and **M. Todd, S. Payne, J. Bintz, S. Lenhart** and **C. Strickland**. *Modeling the Effect of Social Networks on the Spread of Opioid Use*. Preliminary report.

The opioid crisis has recently become classified as a national health emergency, and we investigate the effect of social networks on the spread of opioid use. We are modeling the impact the presence of a highly connected and highly positive individual has on the network to see if they can decrease the number of addicts in the overall network, or the rate of users becoming addicts. We built an agent-based model via NetLogo to create our spatially clustered network to represent how individuals remain non-users or become users, addicts, or rehabilitated. Our model examines the premise of a mechanism to encourage users or addicts to end the use of opioids by surrounding themselves with a sub-network of positive individuals. This sub-network will encourage a user to have less negative influences. (Received September 05, 2019)