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Asma Azizi* (aazizibo@asu.edu) and **A Mubayi**. *Impact of Ecological Risk Factors on the Dynamics of Alcohol Drinking Amongst ASU Students: A simulation based model Implemented in NetLogo.*

College students drinking became a public health issue needed to be addressed. Approximately 62–72 at least once per month, with an average number of drinking days ranged in 4-10. Drinking, indirectly, causes more than 60 types of diseases and injuries and results in approximately 88,000 deaths each year, Global Status Report on Alcohol and Health. University environment can affect drinking among students. We developed and analyzed an spatial agent based model to examine students interactions with environments that support alcohol drinking at the population level. We examine how contextual factors and movement patterns affect alcohol spread. The data collected from the survey on health behaviors of students conducted on ASU Tempe campus are used to estimate most parameters of model. We used global sensitivity analysis to quantify variability in drinking prevalence resulting from model unknown parameters. The primary result of model identified critical environmental mechanisms driving patterns of drinking behaviors. Alcohol drinking depends on certain social contexts and duration of time in those social venues more than any other factors in the model. (Received March 02, 2020)