

1116-VM-2389      **Michael R Kelly\*** ([kelly.1156@osu.edu](mailto:kelly.1156@osu.edu)) and **Joseph H Tien**. *Preemptive vaccination strategies for disease outbreaks in community networks*. Preliminary report.

The risk of disease outbreaks within a network is important when considering where intervention strategies should be focused. The problem is intensified when considering uncertainty among regions within a network. We investigate questions of disease intervention, given uncertainty about the regions and where an outbreak occurs. We first investigate scenarios where intervention is fast, not dependent on time. We seek answers to the the problem of minimizing the costs while also lowering the expected network reproduction number below some desired threshold. We compare results to outbreak scenarios with intervention. This problem is relevant due to the current debate on vaccination campaigns and vaccine stockpiles, with questions on how many doses to be requested and where vaccines should be deployed. (Received September 22, 2015)