1056-92-466   **Anna Mummert*** (`mummerta@marshall.edu`), Mathematics Department, Marshall University, One John Marshall Drive, Huntington, WV 25755, and **Sydney Mkhatshwa**. *Super-spreading events in infectious diseases.* Preliminary report.

Super-spreading events for a specific infectious disease are infected individuals who infect more than the average number of secondary cases. Super-spreading events pose a serious threat to public health and their influence on the course of diseases must be studied. The existence of super-spreading events has been known for many years, but they have not been studied specifically in disease modeling. The 2002-2003 outbreak of severe acute respiratory syndrome (SARS) brought the notion of super-spreading events to the forefront of epidemiological modeling. In this talk, we present and study a modified SIR disease model that captures the effect of super-spreading events in infectious diseases. (Received September 08, 2009)