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Kamuela Yong* (kamuela.yong@hawaii.edu). *Avoidance and perception of risk and their effects on an outbreak*. Preliminary report.

During an outbreak of an infectious disease, uninfected individuals often modify their behavior and are either attracted to, or repelled from, locations based on the perceived risks of infection at each location. Such perceived risks do not necessarily depend on the actual transmission rate or number of infected individuals, but rather on public perception of risk. These dynamics were illustrated with the 2014 Ebola outbreak. In this paper we use a two-dimensional reaction-diffusion-advection model to simulate the dynamics of perceived risks. (Received September 17, 2017)