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**Benjamin Levy\*** (blevy1@fitchburgstate.edu), **Christina Edholm**, **Suzanne Lenhart**, **Orou Gaoue**, **Edward Lungu**, **Moathodi Kgosimore** and **Farai Nyabadza**. *Modeling the Role of Public Health Education in Ebola Virus Disease Outbreaks in Sudan.*

The 2014 outbreak of Ebola in West Africa was the most significant and detrimental to date. Preparedness of health care facilities and health care workers as well as individual human behavior driven by cultural practices contributed significantly to new infections. In light of this fact, we derive a model that partitions the population into those who take precautions against contracting the disease and those who do not. We also consider new infections arising in both a hospital setting as well as in the community, and include transmission from dead bodies as well as the environment. We estimate parameters using available data from two Ebola outbreaks in Sudan and consider implications of a new strain with respect to different death rates and recovery rates. Our goal is to illustrate the role of education in limiting potential future Ebola outbreaks in Sudan. (Received September 26, 2017)