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Kbenesh W. Blayneh* (kbenesh.blayneh@famu.edu), 1617 Martin Luther King Blvd, Jackson Davis 316, Tallahassee, FM 32307. *The effects of extreme climate conditions on vertically transmitted vector-borne diseases*. Preliminary report.

The transmission dynamics of vector-borne diseases which are vertically transmitted in the vector and the host populations are studied. The contributions of extreme climate changes, personal protection, vertical transmission and mosquito control on the dynamics of the disease are assessed using analytical and numerical approaches. Results include the effects of key model parameters on the likelihood of disease prevalence, direction of bifurcation and the global stability of disease-free equilibrium points. (Received September 01, 2015)