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*Ebola Outbreaks and International Travel Restrictions: Case Studies of Central and West Africa  
Regions.*

Ebola outbreaks in Africa have occurred mostly in the Central and West Africa regions that are politically identified as the Economic Community of Central African States (ECCAS) and Economic Community of Western African States (ECOWAS), respectively. In the ECOWAS region, people and goods are allowed to travel freely across national borders of all the 15 member countries, but in the ECCAS region such regional travel across the national borders of its 10 member countries is limited. In this paper, we use parameterized mathematical models of Ebola to investigate the effects of free international travel, and the timing of border closings, on the high number of Ebola infection cases and deaths of the recent 2014-2016 Ebola outbreaks in Guinea, Liberia and Sierra Leone (ECOWAS); as compared to previous and current outbreaks in Democratic Republic of Congo (ECCAS, 1976-2018). We obtain that international travel restrictions and timing of border closings can play important roles in mitigating against the spread of future fatal infectious disease outbreaks. (Received September 13, 2020)