

Review of: "An Optimal Control for Ebola Virus Disease with a Convex Incidence Rate: Imputing from the Outbreak in Uganda"

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Potential competing interests: No potential competing interests to declare.

1. The title, abstract, and introduction emphasize the optimal control aspect of the study, but the approach is rather concerned with assessing the impact of static strategies on the Ebola outbreak. Namely, in simulations, authors check the impact of each combination of intervention strategies from the set of three. Please provide the paper description (title, abstract, introduction) corresponding to the content. By the way, why is it realistic to assume that chosen strategy is constant during the medium period (6 months considered in the paper)?
2. Please highlight the contribution of this study with reference to modeling and solution methodology. In particular, please indicate novelty regarding previous publications by some authors (i.e., 36 and 37).
3. It is critical to compare the findings with the prior literature and check whether the findings can challenge/support the current practice.
4. Minor comments:
 - How is the equation (3.10) related to the results?
 - How to estimate the cost of intervention strategies used in the objective function (3.3)? How do you obtain the curves in Figure 23, and what are the cost measurement units?
 - Why do the authors write that "the cheapest intervention strategy to be implemented is lock down and treatment of infected population". In contrast, in Figure 23, this strategy has a cost equal to 5 during four months, which is visibly higher than claimed "most expensive intervention strategy is Lock down and contact tracing" with a cost equal to 4 during the whole six months horizon!