

Review Form 3

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_123321
Title of the Manuscript:	A COVID-19 POST-VACCINATION STABILITY ANALYSIS FOR A MODIFIED SIR MATHEMATICAL MODEL IN KENYA.
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	The manuscript is important for the scientific community as it gives insight about the post covid-19 vaccination. It contributes to the body of knowledge about the where out of the after covid-19. It also gives insight to the policy makers because covid-19 is still a threat in some countries.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes Or A MODIFIED SIR MATHEMATICAL MODEL OF COVID-19 POST-VACCINATION STABILITY ANALYSIS IN KENYA.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract requires to be rewritten to capture important areas and the purpose of the study. The suggestion is included in the reviewers commend	
Are subsections and structure of the manuscript appropriate?	The subsections and the structure of the manuscript they required to be organised well. As suggested on the reviewers commend.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	If the suggested areas are amended on the manuscript the paper can be scientifically robust and technically sound. The work needs to be organised in a systematic manner so that the meaning and the purpose of the study comes out clearly. The author should consider rewriting the sections well so that the study is meaningful and scientifically robust.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The author can consider adding more references.	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The author should consider revising the tense used.</p>	
<p>Optional/General comments</p>	<ol style="list-style-type: none"> 1. The abstract of the study requires to be rewritten to capture the key areas. <ol style="list-style-type: none"> i) To briefly describe the purpose of the work. ii) A statement on the objective of the study. iii) The methods used in the study. iv) Results and findings obtained in the study. 2. Introduction <ol style="list-style-type: none"> i) The author should consider including a statement on what is covid-19, how it's transmitted and control strategies prioritizing vaccination method used. ii) Look keenly on the tense used. 3. The author should consider; <ol style="list-style-type: none"> i) Including a section on model formulation ii) Having the table of Description of Variables and Parameters used in the model before the model flow chart. iii) Under Post-Vaccination Findings –the method used to determine reproduction number is not indicated. 4. Under the section Stability Analysis for the modified SIR Model with Vaccination <ol style="list-style-type: none"> i) Thus, $\frac{dS}{Dt} + \frac{dI}{dt} + \frac{dV}{dt} + \frac{dR}{dt} = 0$. The highlighted differential should be corrected. Should be Thus, $\frac{dS}{dt} + \frac{dI}{dt} + \frac{dV}{dt} + \frac{dR}{dt} = 0$. ii) Going forward, it will be assumed that there are no births or deaths since the epidemic dynamics occur on a faster time scale than the population dynamics themselves. (This statement should be rephrased) 5. The section 4.0 post vaccination projection and the graphs the author should consider rearranging the section. The author can include a section on Numerical Simulations so that the work is not mixed up. 6. The author should consider including a section on availability of data, acknowledgement and conflict of interest. <p>Reviewers commend Once the corrections are amended the manuscript can be fit for publication.</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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