



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	2013_BJMCS_5571
Title of the Manuscript:	MATHEMATICAL MODELING OF THE EPIDEMIOLOGY OF TUBERCULOSIS IN THE ASHANTI REGION OF GHANA
Type of the Article	Research Paper

General guideline for 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.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (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)
Compulsory REVISION comments	1) At the beginning of the manuscript, you write $X_t - X_{t-1}$ in Eq(1), but without any description of X_t. 2) Since the autocorrelation coefficient is γ_k, what do you call r_k at line 256? 3) At line 297, the null hypothesis H_0 is in negative form. Why do you choose this form? Are you sure there is no bad implications on your results in the manuscript? 4) When modeling specification, why do you think AIC is the most studied? Is it just because many other authors used it that you want to follow them? Please precise how AIC match with your study. 5) In order to select competing models, why do you choose to use ACF and PACF, it is essential to specify each time the adequacy of the methods used with your problem in the manuscript, not to just to follow what others are doing. 6) There is no seasonality but a stationarity in the data. So you need to explain how this observation is consistent with the actual observations of the region. What this is due. Anyway, I do not quite see the link. Can say and cite articles that have gone in the same direction.	



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	7) At line 606, you talk about the vaccination. Should already tell us what is the current rate of vaccination in Ghana or at least in the region so that we know if it is insufficient or not. On the other hand is that your data has not been vaccinated people who nevertheless had tuberculosis? 8) I think you stay too much on the results and do not comment enough in terms of dynamics of tuberculosis. Should discuss the current management in Ghana. What is the magnitude of discontinuations? what is their impact on the dynamics of the infection? Your data do they take into account these discontinuations? 9) Anyway, I think with the data you have, you can not just select the best model and be absent in the same analysis of the dynamics of infection. Are there endemic or not? What should we expect in future years? 10) Epidemiologically, the best model for you is the one who finally solves any problem of tuberculosis observed in the region. This link is not clear since it is not known whether the other end models also do not solve.	
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<u>Minor</u> REVISION comments	1) There are many problems with punctuation in the document. The equations are not at all concerned. For example, the equations in line 247, 249, 269, 279, 299, 491 have no punctuation. This is the case throughout the document. 2) Reference (Bowong et al) is not well cited, it must review the order of authors as in the published versions.	
<u>Optional/General</u> comments	You cite many models at the beginning of the document but Your video results at the end are not Positiones over the previous work. What is specific to the region in contrast to previous articles. It would take a little more digging it.	

Note: Anonymous Reviewer