Author's response to reviews

Title: Spectral analysis of HIV seropositivity among migrant workers entering Kuwait

Authors:

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Version: 2 Date: 29 January 2008

Author's response to reviews: see over
January 29, 2008

Revised MS:  3173322691602549
Spectral analysis of HIV seropositivity among migrant workers entering Kuwait
Saeed Akhtar and Hameed GH. H. Mohammad

Dear Dr. Browning

Please find uploaded herewith above referred ms, which has been revised in the
light of referees’ comments. We have interspersed our responses with comments
of each of the referee. I hope you will accept this format of our responses.

Please also note that we have incorporated a paragraph regarding informed
consent and ethical approval of the study protocol under a sub-heading “Ethics”
in Methods section of the revised manuscript.

Thank you for your time and considerations.

With my best regards

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Encl:
Reviewer's report

Title: Spectral analysis of HIV seropositivity among migrant workers entering Kuwait

Version: 1 Date: 14 December 2007
Reviewer 1: Maria A. Pando
Reviewer's report:

Major Compulsory Revisions

Information about ethical issues should be added. There is not information about Inform Consent. Is HIV diagnosis mandatory in this country for immigrants?. This very important issue should be explained.

The issue of informed consent and mandatory screening has been explained in Method section under separate heading of “Ethics”. Also a statement of seeking ethical clearance has been incorporated in this sub-section

Minor Essential Revisions

More epidemiological data about HIV in the country and the region must be added in order to understand the situation.

As advised by Dr. Pando, available epidemiological information on HIV in the country and in the region has been incorporated under a sub-heading “Setting and Population” in Methods section.

The two figures should be explained in detail in results section.

Figure 1 of first submission has been replaced by a bar diagram (Figure 1) as advised by the Referee 2. We have added a footnote in Figure 2, for its further description that should help elaboration of results. Also, we included a paragraph about the spectral analysis, specifically about its use in other fields and also in epidemiology, brief introduction and description of methods in the beginning of the Discussion.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests
Reviewer's report

Title: Spectral analysis of HIV seropositivity among migrant workers entering Kuwait

Version: 1 Date: 21 December 2007

Reviewer 2: Christian T. Bautista

Reviewer's report:

Comments on: Spectral analysis of HIV seropositivity among migrant workers entering Kuwait

Overall Comments:
The paper is well written, covers an important health topic and is of interest to a wide variety of readers. I would recommend accepting it for publication.

Thanks

Specific Comments:
Grammar; Page 2, change "upon arrival in Kuwait from HIV high burden areas" to "upon arrival in Kuwait from areas with high HIV prevalence"

Corrected

Grammar; page 2, change "However, Mann-Kendall test" to "However, the Mann-Kendall test"

Corrected

Pg. 2. Remove from results the sentence on the periodogram and the power spectrum and focus on the results of the 3 month cycle.

Corrected

Grammar; pg. 3, change "INTRODUCTION" to "INTRODUCTION"

Corrected

Grammar; pg. 3, change "has spread to over 190 countries in less" to "has spread worldwide in less"

Corrected

Grammar; pg. 4 "through out" to "throughout"

Corrected
General comment: In the introduction, the authors should provide additional information, even if anecdotal on the makeup of the immigrant workers. Are they predominantly male, less than 30 years old, or? Are they allowed to bring their families with them? Is it possible to generalize that they primarily have low educational backgrounds?

We have included a separate paragraph under the heading of “Setting and study population” in Methods section and attempted to address all the very pertinent points raised by Dr. Bautista and also some of the points raised by first Referee.

General comment, methods, pg. 6. Would it be possible for the authors to discuss in a few more sentences the background methodology of frequency domain (spectral) analysis? For what purpose was it initially developed? Has it been used before in epidemiology i.e., for the analysis of influenza outbreaks?

An opening paragraph in Discussion section has been included to respond all the queries of learned Dr. Bautista. We agreed with Dr. Bautista, this type of information is very helpful.

General comment, results, pg. 6-7. The authors should indicate which three month seasonal period had the highest HIV prevalence. Additionally, it’s unclear if information on country of origin was available, however, the information on HIV prevalence by country of origin would be extremely interesting.

As mentioned in the results, we could not detect significant seasonality in the proportion of HIV seropositive migrants and to estimate periodicity (cyclic pattern), we used de-trended and de-seasonalized data. Hence we refrained using word season while discussing the significant cyclic behaviour of the data. Therefore, we request Dr. Bautista to kindly bear with us on this.

We agree with the learned referee that additional information on the country of origins of the migrants would have enriched the results. Unfortunately, we did not have access to this information in this data set and a limitation to this effect has been included in the limitations of the study in Discussion section.

Grammar; pg. 7. The first and second sentences of the discussion do not flow together. The authors state at first that population-based studies suffer from biases, which is true, then go on to state that population-based registries are the best surveillance tool in Europe. I assume they are referring at first to broad population level HIV prevalence surveys, and secondly that they are referring to the specific HIV registries in Western Europe, where the governments are given all identifying epidemiological information for persons testing HIV positive; however, this is not clear.

The learned referee has rightly understood and that is exactly what we mean. We now have modified the sentences so that those are easily comprehensible – (now in 2nd paragraph of Discussion section in the revised version).
Grammar; pg. 10, change “spatial distributions within countries of origins” to “spatial distributions within their countries of origin”

Corrected

Figures.

I don’t believe the information in Figure 1 needs to be shown. I’d rather see a graph of overall HIV prevalence by year, although this information is presented in table 1. Likewise, Figure 2, by itself, is uninformative. I believe a few short sentences should be included to explain what is being shown; is the three month period indicated by the spike in red that is shown at 2.5 months?

On the advice Dr. Bautista, we have replaced the figure1 with bar diagram (figure 1) showing HIV prevalence by year.

As advised by the Dr. Bautista, we included in the footnote in figure 2 giving more description of figure 2a and 2b and elaborated the labels of x-axis and y-axis. The spike in red is indicating frequency (ω) as 2.4 radians that was converted into 3 month cycle. This mathematical relationship is explained in references given in the manuscript.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.