Author's response to reviews

Title: Diabetes, HIV and other health factors associated with absenteeism among formal sector workers in Namibia

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Version: 3 Date: 2 November 2011

Author's response to reviews: see over
Dear Editors,

Thank you for considering our resubmission of the manuscript. We have made a number of revisions following the response of the reviewers. We thank them for their time and consideration and we hope the improvements may lead to a reconsideration.

Best regards,

Leonor Guariguata

Author's response to reviews
Title: DIABETES, HIV AND OTHER HEALTH FACTORS ASSOCIATED WITH ABSENTEEISM AMONG FORMAL SECTOR WORKERS IN NAMIBIA

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Version: Date: 2 November 2011
see over
Author's response to reviews:
Reviewer’s report
Title: Diabetes, HIV and other health factors associated with absenteeism among formal sector workers in Namibia
Version: 1 Date: 26 May 2011
Reviewer: Josephine Engels
Reviewer’s report:
Major Compulsory Revisions
The research conducted here seems to be of importance: a large data set is gathered on different health factors and on absenteeism of employees in Namibia. However, the research, and especially the research question, design and analyses leave room for discussion. Below, I will categorize the questions / remarks under the paragraph headings given in the article.

Introduction
In the first alinea of the Introduction much attention is paid to the employers view on absenteeism and (lack of) health of their employees. It is not quite clear where the benefits for employees are regarding the topic. Now it seems the research was conducted to let employers gain from the information about sickness absenteeism.

The choice to combine health factors with sickness absenteeism is ot very well funded and now seems only to be employer driven. This brings up the question whether it should have been more ethical to only display the public health factors without the combination with an occupational health factor?

The authors felt that the health of employees and occupational health are important components of public health and to remove the occupational aspect of the work and its analysis would diminish the findings of the research. Occupational health research examining the reasons for absenteeism is well established and has been carried out and published in various countries, but few or none in sub-Saharan Africa. Employers are in the unique position to provide services such as wellness programmes and health insurance that will directly benefit employees. It is thus important to engage this particular sector as a partner in improving public health.

In the introduction no specific aims or research questions are stated.

page 6. last paragraph: “The survey was designed to capture information on employee knowledge of health conditions, basic health status and behaviors, presence of communicable conditions (e.g. HIV, hepatitis B, syphilis) and risk factors for NCDs (e.g. blood glucose, blood pressure, waist circumference, BMI). Results are presented and suggestions are made to increase access to sustainable healthcare provision for Namibian workers and understand the drivers of absenteeism.”

However, they could enlighten the chosen statistical analyses and they would enable more insight for the reader in somewhat more descriptive results in the results paragraph.

We have added expanded on our chosen statistical analysis based on existing methods for absenteeism data. page 10 - Statistical analysis

Methods
The purpose of the survey was to raise awareness: about what?
The methods section has been revised and the purpose statements moved to the Introduction to provide more clarity.

Under statistical analysis: 890 participants had missing values on absenteeism(=11.6%). Please add before the following sentence a sentence about investigating the non response (before the sentence 'There were significantly more females with missing sick leave...')
We re-conducted this analysis and found an error in the code used, there were no significant differences found in the end and this statement has been revised.

More information is needed on your research design: Although it seems to be a cohort research, no incidence information on diverse health factors is given, only prevalence information. This should suggest that no RR's can be calculated, only OR's? (or SOR's).

As we were not attempting to calculate relative risk, but rather rate ratios, I think the reviewer may have been confused by the way the figures were presented. We have changed the measure of interest, incidence rate ratio, to IRR throughout for more clarity.

Results
Some more insight on descriptives of the different sectors and different health factors over the sectors would be most welcome (see comment research questions in introduction), also in Tables.

This is addressed now in the Discussion section, first paragraph.

A question can be raised on the choice of the control group (retail). Controls for RR are usually the group of respondents who have NOT the disease (e.g.) in question. Control c.q. reference groups are not only based on their largeness. With the choice of this control group, can it also be assumed that this group causes less or even more contrast with the case group? Is there another argument to give why this group was chosen as the referent group? When you had chosen another control group, what difference would that have made on the results?
We chose the reference group for analysis based on it being the largest group of any of the industries with no extreme values in the prevalence of diseases or risk factors. For this study there are no true controls as we chose to group industries together which have similar working environments and policies that may be directly related to absenteeism. These were considered then as appropriate choices for cohorts rather than separating by condition across diverse industries.

Discussion
Following topics should be addressed to:
- A comparison with the literature or with information from other relevant countries about the 'level' of sickness absenteeism / health factors

Comparable data for sub-Saharan Africa is not easily available.

- An interpretation of the sickness absenteeism figures. Is 0.92 / 1.2 days of sick
leave on three months a high level of sick leave or not? What about when having a (chronic) disease?

Again, this information is not available for sub-Saharan Africa, but we considered more the relative contributions of different conditions as a way for employers and the health system to set priorities about which conditions to try and address to reduce absenteeism. We are not recommending a specific amount of days gained as there is not enough information to base the comparison on.

The differences in health factors and absenteeism between sectors should have been given som more reflection. Results are repeated in the discussion paragraph whereas refelction on the ‘why’ is not given. Some reflection on the chosen statistical analyses should be made, and also on the choice of the control group.

We have added a section on the reference group selection under the Methods section. page 10.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:
I declare that I have no competing interests.
Reviewer’s report
Title: Diabetes, HIV and other health factors associated with absenteeism among formal sector workers in Namibia
Version: 1 Date: 27 May 2011
Reviewer: Pepijn Roelofs
Reviewer’s report:

In general, more focus is needed on the primary goal of the manuscript: the association between health status and absenteeism. At this moment the manuscript still contains unnecessary aspects from the broader Bophelo! Project. Furthermore, the average number of days sick leave should be reported in the abstract and taken into account in the conclusion (absenteeism seems a minor issue according to the reported data).

The Introduction section has been revised, see above.

Discretionary Revisions
1. The authors clearly state the importance for assessing absenteeism. However, the introduction appears to end with the general goals of the broader project “The survey was designed to capture information on employee knowledge of health conditions, basic health status and behaviors,…”
   It would help to focus to the aim of the article, i.e. exploring the association between health status and absenteeism.

Minor Essential Revisions
2. The authors do not pay attention to the missing data on health status at all. For example for about 20% of the participants data is missing on haemoglobin levels, hepatitis b, syphilis (n’s between 6133 and 6162), and about 13% apparently refused HIV testing. Please address reasons and possible implications.
   This is now discussed in the Methods section. Many companies did not offer a particular screening to their employees. Percentages were calculated based on an intent-to-treat model including all participants. The missing data was not found to be systematically distributed or to be significantly different for those who did have data.

3. The chapter statistical analysis already contains results on missing data, and text seems incomplete (eg: “There were significantly more females with missing sick leave data than without missing data (p=0.001, Pearson’s #2= 10.4, d.f. = 1), were significantly…”). Regarding the analyses, I would like to suggest to explore alternative ways for analysing the count data with a statistician. To understand the outcomes it would be much easier (for a reader) to report estimates of increased days of sick leave instead of the relative rate ratio’s.
The analysis for missing data was reconducted and we found an error. See above. The accepted analysis for absenteeism-related count data is to report incidence rate ratios based on regressions (reference 21) which is what we followed. The incidence rate ratio itself is a measure of the additional sick time you can expect for a person with the given condition compared to one without.

Major Compulsory Revisions
4. The original Bophelo! Project seems not to be designed to assess absenteeism and little attention is spend on aspects of absenteeism in the manuscript. For example, a definition of sick leave and a description of cultural aspects for sick leave in Namibia are missing. As well as missing reference rates on absenteeism of the sectors under study, which would make it possible to interpret the relevance of the results presented. This should be elaborated.

This information is not available for Namibia. This is the first study of its kind reporting on absenteeism data in the country. We have no frame of reference from which to compare. We did, however, make an effort to discuss the representativeness of the findings as well as provide a context for prioritizing health intervention for employees in Namibia. This is now discussed in the Limitations.

5. I have serious concerns about missing data/ under reporting and the interpretation of the sick leave data. It is hard to believe that the current reported number of 0.92 days per 90 days is correct and representative. This would mean that the sick leave rate is about 1%. If true, the meaning of the reported relative outcomes (rate ratio’s) would be negligible for daily practice as absenteeism then wouldn’t be an issue. Under reporting seems a very likely bias and should be addressed more thoroughly. In this, cultural aspects are probably of importance.

The missing data issue is addresssed above. We discuss the possible bias from underreporting now in the Limitations section.

6. It would be informative when continuous sick leave data is also reported per health condition, or if applicable for the most frequent presentations of comorbidity (for example HIV and Hepatitis b or hiv and). Apparently there is a great bulk of workers without sick leave. Insight in sick leave frequency patterns would be helpful to interpret these figures.

We agree, however, this information is not available. This is also a short recall period which may not represent the true burden of chronic conditions over a longer period of time. We discuss this in the Limitations section.

7. The relevance to daily practice seems currently unbalanced. If correct, the reported average number of days sick leave is small, and do not support the need of the recommended interventions. The possibility of under reporting and
cultural aspects about absenteeism should be considered more thorough in the discussion.
Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:
I declare that I have no competing interests.