Author's response to reviews

Title: Managing non-communicable diseases at health district level in Cambodia: a systems analysis and suggestions for improvement

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Managing non-communicable diseases at health district level in Cambodia: a systems analysis and suggestions for improvement

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BMC Health Services Research
(Section: Health systems and services in low and middle income settings)

We thank the reviewers for their thoughtful comments following their perusal of our manuscript. Below we outline our actions in response to their reflections.

Reviewer 1: Giridhara R Babu

Major Compulsory Revisions:

Background:

1.1. The background leading on to description of the country’s health system is not adequate and there seems to a disconnect.

We addressed this issue by reformulating the paragraph before the background information on Cambodia’s district health system. This paragraph now reads:

In this paper we examine the capacity of the Cambodian district health system to deal with diabetes and hypertension, two common conditions amongst rural and urban adults [10] with prevalence estimates of 5-11% and 12-25% respectively. The district health system constitutes the model for delivery of public health services to the Cambodian population. In rural areas, home to 80% of the total population, the district health system is considered the major vehicle for primary health care. We focus in particular on access to medicines within the district health system for these concerned conditions as such access is considered crucial for the system’s ability to manage NCDs and thus reduce their public health and socioeconomic impact.

1.2. Authors should clearly specify regarding the rationale for doing this study?

Following on from the Background’s first and second paragraph, the last sentence of the third paragraph, namely “We focus in particular on access to medicines within the district health system for these concerned conditions as such access is considered crucial for the system’s ability to manage NCDs and thus reduce their public health and socioeconomic impact” clarifies the rationale

1.3. Page 3, Line 17: It is unclear on what authors mean by the sentence “The demands on health systems themselves are significant [3].”

The sentence has been omitted as it was supposed to bridge two sentences. Elaborating the sentence risked making it repetitive as the demands on the health
The text in the background should be reduced to only what is relevant to the objective of the paper.

We reduced the Background section on Cambodia’s district health systems by deleting the following (total of 230 words):

The ministry develops policies, legislation and strategic plans; coordinates with other ministries and mobilizes and allocates resources; performs monitoring and evaluation, partly through maintaining a health information system; and provides training and support to provinces and districts. Provincial health offices cover one to ten OHDs, manage the Provincial hospital; constitute the link between the Ministry and OHDs; oversee implementation of the Health Strategic Plan.

…: Complementary Package of Activities 1 (CPA1) district hospitals have 40-60 beds, provide obstetric services but are not able to do major surgery; CPA2 hospitals have 60-100 beds, provide emergency care services, major surgery and a limited set of specialized services in addition to the CPA1 package; CPA3 hospitals have 100-250 beds and provide an extensive package of services, including specialised services. Out of the country’s 24 provinces, 21 have a CPA3 hospital and the eight national hospitals in the capital have similar status.

(The HCMC) should consist of three health centre staff and an elected community representative from each commune covered by the health centre…

(Village Health Support Groups) should comprise the HCMC members plus one male and female elected representatives from each village served by the health centre.

The Health Sector Strategic Plan 2003-07 [13] makes explicit mention about chronic and non-communicable diseases amongst the thirteen core elements making up the document’s Policy Statement. The main expected outcome, however, is “increased public awareness on prevention of chronic diseases.”

The remainder of the text in the section was partly reordered to allow for a logical flow of information.

Minor Essential Revisions:

Methods

1.5. The first sentence in methods describe that “We report here on a part of a wider study that, amongst other objectives”. The authors need to provide description about what this wider study is about?

The concerned sentences have been reformulated to:

This study is part of a wider research that sought to identify realistic strategies to enable the Cambodian rural population affordable access to NCD medicines by considering existing risk protection schemes, health system configurations and socioeconomic and cultural characteristics. Here we report on the assessment that sought to identify district health system components that can be built upon or improved to ensure durable and affordable access to medicine for patients with NCD.
Discretionary Revisions

1.6. *In Discussion, policy actions can be discussed at national, state and peripheral levels to address the theme-wise points mentioned in the results.*

We welcome this comment but as we point out there is a requirement to address each health system building block whereby the list of actions becomes extensive. As such we wander how to reconcile this with the second Reviewer’s comment to reduce the length of the manuscript.

**Reviewer 2: Thandi Puoane**

2.1. *The abstract is well written but the authors need to add information on the design and method/approach used in the study.*

The following was added to the Method section of the ABSTRACT:

A case study whereby in three purposely selected districts in an equal number of provinces a total of 74 informants were interviewed.

Data analysis involved coding, indexing, charting and mapping the data. Following these exercises, all information was analysed by kind of respondent and their respective answer to the question concerned.

At 14 health centres and 3 district hospitals the availability of key medicines for hypertension and diabetes in accordance with the National Essential Drug List was assessed. This was also done for essential tools and equipment for diagnosing these two conditions.

2.2. *In the main body of the manuscript, it is stated that data was collected through interviews of health care providers, administrators, community members, managers of non-communicable disease interventions and social health protection scheme. It is not clearly described whether only qualitative or both quantitate data collections were utilised. Although numerical data is presented, somewhere the opinions of the respondents are mentioned. This needs to be clarified. Given that the questionnaire was said to include open ended questions, it means that there is some qualitative data.*

In the last paragraph of the section Key Informant Interviews in METHODS we added the sentence:

Responses to open-ended questions were coded during analysis and thereafter treated as quantitative information.

2.3. *Data presented in the manuscript is sound, with genuine figures but on page 13 the authors mention the budget figures, while Table 4 presents fees charged. This needs clarification. It is not also clear if funds were provided to centres or to each patient.*

In the Background section –Cambodia’s district health system; we made
rearrangements (see response 1.4 above) and the paragraph on user fees reads:

User fees are charged by nearly all public health facilities but are nominal in nature and mainly intended as a staff incentive as the government subsidizes the running expenses, including medicine. Essential drugs are procured by the Ministry of Health and provided to public health facilities through the MOH Central Medical Stores. Medicines are to be provided for free to patients at public health facilities.

The Results, Financing, reads:

Few of the facilities examined had an annual government budget for NCD, and those budgets available were minimal (Table 4). One provincial health department had a budget of US$1,600; its respective provincial hospital US$2,400; and the district hospital US$1,800. Only 2 health centres reported an annual budget of US$2,000, but none of the operational health district administrations had any.

With the exception of two health centres, all facilities charged consultation fees from patients for NCD-related services, ranging from KHR2,000 (US$0.5) to KHR6,000 (US$1.5)

2.4. Table 5 is also confusing. The subheadings given are mean, SD, median, minimum and maximum. Is it the mean of total patients or medicine? It is not clear. What is minimum and maximum for? Is this the range? Please clarify

The Table was redone whereby standard deviations (SD) were presented with the mean (SD) and median and respective ranges as median (minimum – maximum). Both averages are provided as there are considerable differences between them.

2.5. The title of Table 5- refers to the duration of treatment- this is really confusing as the text discuss concepts that differ from what is presented in the table

We reformulated the title of Table 5 as:

Reported amount of medicines supplied to patients and estimated number of patient who can be managed per quarterly supply by Central Medical Stores

2.6. The findings need to be scrutinised and re-written

Without further clarification of the reviewer we found this a daunting task as attention was paid to limit the length of the section and to guide the reader through the collected information. As the First Reviewer stated that the “Results section is well organized” we suggest to keep the section as in the originally submitted manuscript.

2.7. The discussion is long and seems to repeat the findings with little supporting literature.

We reduced the Discussion by deleting the following (280 words):

In this study, both health providers and scheme managers confirmed the opinion that NCD were prevalent in their communities. There were varied opinions about the timely presentation to health providers of such patients, as well as the ability of the public health sector to manage these conditions. A third of providers rated public health sector services as excellent: none of the community representatives agreed. Amongst the services provided,
Referral of patients to higher treatment levels was the most mentioned, followed by screening, while treatment, and follow-up were mentioned to a lesser extent. Only a third of providers mentioned that they would provide counselling or recommend lifestyle changes. Availability of sufficient medicine for NCD was considered a challenge by two thirds of providers while all primary and secondary facilities were insufficiently equipped to perform essential laboratory tests for monitoring NCD patients.

One hospital and one health centre mentioned charging for medicine, contrary to the national guidelines that indicate that these should be provided for free.

While three quarters of providers were of the opinion that there is a provision for NCD in the planning cycle for OHDs, only 15% mentioned the same for the budgeting process. Social health protection schemes may indeed facilitate access to treatment at public health facilities for NCD though the degree of effectiveness is questionable if essential elements of the therapy are missing.

Morbidity and mortality related to NCDs are prominent but…

There was uncertainty regarding the inclusion of NCDs in the health information system.

The NCD interventions (peer education network and CDC) performed best in relation to drug availability and supply, either because they had their proper revolving drug fund arrangements or because they operated as vertical interventions.

2.8. Limitations related to the study are needed

As limitations we added the following paragraph:

Our study took place in three of the country’s 81 OHDs only whereby the findings may not be nationally representable and caution should be exerted to generalize them. However, administration and allocation of government resources are largely centralized at national level, with limited decision-making discretion at lower levels [45], whereby dissimilarities with other OHDs are unlikely. Contrary, the districts are advantaged in terms of support for social health protection, and in two cases, have specific NCD interventions, so they represent contexts in which we would expect NCD management to be optimised.

2.9. Some editing is needed, and some session could be summarised to reduce the length of the manuscript

See responses 1.1 – 1.6 and 2.1 – 2.7 above

2.10. I added sticky notes and comment in the manuscript to assist the authors with the required revision

See 2.1. above for adjustment. The Conclusion of the ABSTRACT has been reworded to:

Because of the public health, social and economic importance of non-communicable diseases, a rapid response is required. Given the current Cambodian situation, such response may initially be a diagonal approach, with non-communicable diseases services integrated in the National HIV/AIDS Programme. This should happen together with a reorientation of the health system to enable a horizontal approach to non-communicable diseases management in the long term.