Author's response to reviews

Title: Characteristics of youth sexual reproductive health and risky behaviors in two rural provinces of Cambodia

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Author's response to reviews: see over
Reply to Reviewer’s report  
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Title: Characteristics of Rural Cambodian Youth Sexual Reproductive Health and Risky Behaviors in two rural provinces of Cambodia  

Reviewer: Ilene Speizer

Reply to Major Comments:

1) There are numerous grammatical problems throughout the paper. In addition, the paper jumps around and loses the reader (particularly in the introduction and discussion).

The study’s authors agree with reviewers comments. We will review and revise the introduction to correct grammatical mistakes and provide a more concise flow through the introduction and discussion sections.

2) Methodology: The sample design was not completely clear. Did you select 15 villages (from some master list of villages in each province) or did you select one cluster of villages (from some master list of clusters of villages). As a reader, I am trying to get clarity on what the first phase was representative of. In the second stage, I think you selected 10 households (systematically) from each village, but there was no information to clarify on where the list of households came from – was there a listing and mapping exercise before selection? Or did you go to the center of the village and work systematically from there in some manner?

The study’s authors agree with the reviewer’s comments. We will clarify the sampling methods used in the revised manuscript. The number of villages used to recruit and interview youths included 30 villages (15 from Kampong Thom and 15 from Preah Vihear provinces or 15 villages from each of the two listed provinces).

3) Finally, how were youth selected at the household level? Were all youth eligible or only one eligible per household (or one female and one male)? If only one, how was this one selected? Was it a random selection with return to the household to find the selected youth if she/he was not home or was it based on presence at the time of interviewing?

The study’s authors agree with reviewer comments. The youth were selected at the household level by the eligibility criterion and also their presence at the time of interviewing. Sampling was initiated at the center of the village and then genders were assigned to each.

4) A related matter is the low response rate – 62.6% - What was the reason for this low rate – was it refusal? Not being available (after some number of visits)? Or something else? Did you weight the data to adjust for non-response? Also, you seemed to nicely end up with 150 female and 150 male youth, were households substituted to get these exact numbers?

The study’s authors agree with the reviewer comments. We found a low response rate by refusal. The initial design targeted at least 150 boy and girl youths. No there was no weighting of data for non-response.

5) Survey methods (questionnaires) – from the write-up, it is not clear if all youth were
asked all questions or if some youth were skipped. Some examples were questions on attitudes on plans for future sex – this seems only appropriate for unmarried (and never had sex) youth, but it seems all youth may have responded to this. It also wasn’t clear how things were defined. For example, there is a question on attitudes toward future expectations of sex in remaining adolescence.

The study’s authors agree with reviewers comments. Our survey questionnaire and all its questions were administered to all youths regardless of marital status. We feel it was important to capture the sexual reproductive health data of married and also single youths.

6) How was “adolescence” defined? If it is under 20, how would the youth who are 20-24 respond? Or did this include all of the ages surveyed? Finally, there are lots of hypothetical questions in this survey (and paper) which lead to lots of potential for response bias as indicated by the authors. This might be a good place to drop material and make the presentation more focused on actual risk-taking behaviors.

The study’s authors agree with the reviewer comments; however, the authors of the study feel it is important to maintain the consistency of prior investigations youths and maintain the age criterion listed in the methods section of the manuscript.

7) The last statement of the methods section says that only significance of p<0.05 are considered. But, in the results section (and discussion) many non-significant results are discussed. This seems inconsistent and the focus should be on the significant results. In addition, most of the logistic regression results are not significant which likely reflects the small cells so I think you are trying to do too much with the data.

The study’s authors understand the reviewer’s comments; however, the authors feel that non-significant findings, as suggested by the reviewer might be explained by low statistical power resulting from a small sample size. We do, however, feel that non-significant findings are important and should be evaluated in future studies of this population.

8) In the results section (and Table 1), you need to discuss the total n’s by sex and then provide the specific ages of the sample. The mean age is useful but if there are about 25 female youth who are 20-24, it would make sense that about that many are married. Also, since the male youth are older, it is not surprising that they are more likely to be engaged in some of the behaviors so simply comparing by sex does not adjust for the age differences and can be misleading.

The study’s authors agree with the reviewer’s comments and revised the analyses and tables to include a summary of age categories. A revision of the results section included a summary that can reduce any misleading comments or findings.
9) The results on relationships are confusing. First, for the question on current girlfriend/partner/boyfriend – how are married women or men meant to respond?

The study’s authors agree with the reviewer’s comments and will revise the presented analysis to exclude married youths.

10) Would they be “no” if no outside partner? Also, the low percentage that intend to get married is surprising and made me wonder if something went wrong with the coding/analysis (the n’s are smaller too).

The study authors agree with the reviewer’s comments and made revisions and changes as noted.

11) In the presentation of the findings – instead of saying that 845% increase risk for males, it seems better to say that male youth have 9.45 higher odds of doing the behavior.

The study authors agree with reviewer’s comments and will make edits.

Reply to Minor Comments:

12) There is no information on Institutional Review or ethics review in Cambodia and in U.S.

The study authors agree with the reviewer’s comments and will include information of Ethics review for the study.

13) Page 12, I see 11% of youth have alcohol 13+ times whereas in the text is says 4%.

The study authors agree with reviewer’s comments and will make edits.

14) Table 1 – there is something wrong with the numbers for earns income and control of income for boys – they do not sum to 100%.

The study authors agree with reviewer’s comments and will make edits.

15) Table 5 – I see where the n’s came from but have no idea where the percentages come from.

The study authors agree with reviewer’s comments and will make edits.
Reply to Reviewer's report
Reviewer: Venkatraman Chandra-Mouli
Reply to comments on the manuscript:

Introduction
16) Paragraph 1: Line 5: Reference 2 is not appropriate. The study’s authors agree with the reviewer’s comments and have deleted the reference in the text of paragraph 1.

17) Paragraph 2: Last line: Reference 4 is an unpublished report published 18 years ago The study’s authors agree with the reviewer’s comments and have inserted a recent reference in the text of paragraph 1.

Youth Situation
Paragraph 1:
18) Line 2: Reference 5 is ten years old. Statements about the population structure and proportions should be backed up with more recent references. The study’s authors agree with the reviewer’s comments and have inserted more recent and updated population references in the text of paragraph 1.

19) Line 3: Reference 6 is eleven years old. The study’s authors agree with the reviewer’s comments and have inserted a recent reference in the text of paragraph 1.

20) Line 5: To the best of my knowledge there is no such thing as United Nations Population Council. The study’s authors agree with reviewer’s comments and have corrected the text that includes “Population Council” from “United Nations Population Council.”

Paragraph 2:
21) This para contains many broad statements but is not backed up by any references. The study’s authors agree with the reviewer’s comments and have inserted more recent and updated population references in the text of paragraph 2.

22) Paragraph 3: The para starts with a statement about rural youth, but the data presented is not about rural youth. The study’s authors of the study agree with the reviewer’s comments and changed the text from “rural youth” to “youth.” The body of the paragraph does not refer to rural youth but all youth that the data supports.

23) Line 8: Reference 12 is from 2002, reference 13 is from 2008 and reference 7 is from 2005. Use more up to date references. The study’s authors agree with the reviewer’s comments and have inserted more recent and updated references in the text of paragraph 3.

24) Paragraph 4: No changes suggested.

25) Paragraph 5: Lines 2-4 (Evidence suggests...young infants or adults): Provide a reference to back up the statement.
The study’s authors agree with the reviewer’s comments and have inserted a references in the text of paragraph 5.

26) Lines 4-5 (These approaches…child bearing practices): Please provide a reference.
The study’s authors agree with the reviewer’s comments and have inserted a references in the text of paragraph 5.

27) Lines 7-8: Please provide a reference to the Cambodian Youth Sexual and Reproductive Health project.
The study’s authors agree with the reviewer’s comments and have inserted a references in the text of paragraph 5.

28) Paragraph 6: No changes suggested.

Methodology
29) Population and sampling: Did you use data that had already been collected? Or did you only use data that you gathered?
The study’s authors with the reviewer’s comments and inserted a sentence within the paragraph labeled “Population and Sampling” than includes “One of us (JRL) managed the data collection.”

30) Eligibility criteria: No changes suggested.
31) Surveyors: No changes suggested.

Survey questionnaire
32) Paragraph 1: No changes suggested.
33) Paragraph 2: No changes suggested.
34) Paragraph 3: I am uncomfortable about the way the questions phrased on potentially stigmatizing behaviour.
We the authors understand the reviewer’s comments and agree. There is a potential for under or over-reporting of risky practices such as pornography use. An improved approach might be to conduct qualitative interviewing to identify key phrases that refer in a customary manner to risky behaviors.

35) Statistical Analysis: no changes suggested. Results Section

36) Demographic Analysis: No changes suggested.
37) Household Economics: No changes suggested.
38) Migratory practices: Lines 5-8: Please say what kind of occupational abuse occurred. The authors do not understand the comment made by the reviewer. We did state the occupational abuse type found on page 9 under the section listed as migratory practices. The last sentence of this paragraph states the two most common type of occupational abuse include discrimination and fraud the salary.

Reproductive health characteristics
39) Paragraph 1 Line 3: Please explain what you mean by ‘…youth do not expect a sexual partner’.
The study’s authors would to reply that this question is a indictor or high sexual activity or initiation within the study population that can be used for programming purposes such as identify key areas that require or call for intervention or programming to reduce the number of youth pregnancies.

40) Paragraph 2: I am not sure about the value of asking young people whether they plan to use reproductive health services in the future.
The study’s authors would like to reply that developing "positive" attitudes toward key SRH topics/issues is an important objective of many adolescent and youth SRH programs. This indicator is a composite measure that covers attitudes toward the SRH topics and issues of primary importance for protecting the RH of adolescents and/or those the program emphasized. As with knowledge, positive attitudes do not necessarily predict future behaviors. So this would be a weak indicator to use to predict actual healthy behaviors.

41) Paragraph 3: No changes suggested.

42) Paragraph 4: This para contains many different issues – interest in getting married, sexual experience, age of sexual debut, number of partners, type of partners, context in which sexual debut.
The study’s authors provided the following explanation: sexual debut is a risky indictor of early menarche, premature adult lifestyle and might be a risk indicator of risky behaviors including tobacco, alcohol and drug use [1-3]. In addition, there are studies that suggest negative sexual reproductive health outcomes that include the above mentioned factor. This explanation may also include other factors such as the desire for future marriage, prior sexual experience, number of sexual partners as well as the types of partners [4, 5].

Health seeking behaviours:
43) Paragraph 1: Line 2: When you say information, do you mean services.
The study’s authors understand the reviewer’s comment and have edited the text from “information” to “information and services.”

44) Paragraph 2: Lines 1-3: Sexual and reproductive health services can include both preventive and curative services.
The study’s authors understand the reviewer’s comment and have edited the text to include “Curative services (i.e. infection and non-SRH services).”

Alcohol and drug use:
45) Paragraph 1: No changes suggested.
46) Paragraph 2: I am not comfortable with the way in which the questions were posed.
Did you ask questions about condom use while not under the influence of alcohol? If you had, that would have provided a useful basis for comparison with behaviour under the influence of alcohol.
The study’s authors understand the reviewer’s comment. We did not ask any questions about condom use while not under the influence of alcohol. Therefore, we could not have compared the behavior under the influence of alcohol. We will include a comment in the limitations section that our study was not able to compare behaviors related to alcohol use.

47) Paragraph 3: Again, I am not comfortable with the way in which the questions were posed.
The study’s authors are not clear what the reviewer’s comment is asking. The authors would like to state that the manner in which the questions asked are included as standardized methods in addiction and behavioral reach.

**Gender Comparison:**
48) Paragraph 1: You can only use the word increase if you are discussing trends. Here you are reporting on differences in levels between males and females.
The study’s authors agree with the reviewer’s comments and will edit the text accordingly.

49) Paragraph 2: I am not comfortable with the way in which the questions were posed. The point I made about the use of the word increase applies here as well.
The study’s authors agree with the reviewer’s comments and will edit the text accordingly.

**Logistic Regression:**
50) Paragraph 1: Lines 3: What do you mean by the phrase negative attitude towards reproductive health? I am not comfortable with the way in which the following question is posed: Feeling ready to cause a pregnancy’.
The study’s authors understand the reviewer’s comment and will delete this variables from the table.

51) Paragraph 2: The association is hard to explain. Lines 2 and 3: The explanation provided for the association does not make sense to me.
The study’s authors understand the reviewer’s comment and will delete this variables from the table.

52) Paragraph 3: I am not comfortable with the way in which the questions on risk behaviour have been framed.
The study’s authors understand the reviewer’s comments and decided to exclude any ambiguous analysis and rewrite this section of the manuscript.

53) Paragraph 4: Again this association is hard to explain.
The study’s authors understand the reviewer’s comments and decided to exclude any ambiguous analysis and rewrite this section of the manuscript.

54) Paragraph 5: As commented earlier, I am not comfortable with the phase ‘feeling ready to cause a pregnancy’.
The authors under the reviewer’s comments. The use of the risk indicator “feeling ready to cause a pregnancy is a proxy measure that might be used to indicate increase risky of pregnancy in unmarried youth. In settings where sexual relations and pregnancy outside of marriage are highly stigmatized, female respondents to surveys will likely under-report adolescent pregnancies occurring outside of marriage. Responses by male adolescents may also be biased, but the direction of the bias is less certain. On the one hand, males who have had multiple casual sexual partners may be unaware of pregnancies they caused. On the other hand, male adolescents may exaggerate their sexual prowess in surveys, and thus may over-report the number of pregnancies they caused. Nevertheless, in most settings, the indicator provides a lower-bound estimate of the true percent of adolescents experiencing or causing pregnancies. Although youth programs tend to view adolescent
pregnancies as a negative outcome, pregnancies occurring to adolescents are sometimes wanted. Some situations may provide economic and social benefits of pregnancy during adolescence. Thus, evaluators must interpret this indicator in conjunction with data on the “wanted” status of pregnancies occurring to adolescents. We will include a brief sentence in the methods section explaining “feeling ready to cause a pregnancy.”

55) Paragraph 6: Line 1: The category risky practices, includes items that are covered elsewhere. So I am not clear why you have brought these items together as one group. The study’s authors understand the reviewer’s comment. The independent effects of risk factors did not reach significance in most of the analyses presented; therefore, an additional model was considered to evaluate a potential association between the school enrollment and parental residence and the joint effects of all factors.

Discussion
56) Paragraph 1: Lines 4 and 5: Buddhist values were not covered in your survey. Please explain the basis of your statement. The study’s authors understand the reviewer’s comments. We will include statements in the methods section summarizing questionnaire items related to traditional Buddhists beliefs about sexuality and marriage.

57) Paragraph 2: Lines 3 and 4: Please replace the word gender with the word sex. Gender is a social construct. The study’s authors agree with the reviewer’s comment and will edits to the text from “gender” to “sex.”

58) Paragraph 3: I am not clear what point is being made here. The study’s authors understand the reviewer’s comment. The authors would like to emphasize that although a majority of youths report to the cultural belief that sexual activity should be deferred until after marriage, there is also a majority of youths who plan to have at least a single sexual partners during their remaining adolescence. This might be of interest of local programming experts that target these rural areas of Cambodia.

59) Paragraph 4: Lines 10 and 11: Please provide a reference to the assertion that a sexual encounter prior to marriage is expected. The study’s authors understand the reviewer’s comment and will include a reference in the text and also at the end of the paper.[6]

60) Paragraph 5: No changes suggested.
61) Paragraph 6: Lines 5-8: The small number of young people who reported having sought SRH services may well be because of the way in which the question was phrased. The study’s authors understand the reviewer’s comment and included a sentence to address this concern.

62) Paragraph 7: No changes suggested.
63) Paragraph 8: No changes suggested.
64) Paragraph 9: Line 1: Please note that this is reported behaviour. The study’s authors agreed with the reviewer’s comment.

65) Paragraph 10: Lines 3-13: The discussion on pornography goes far beyond the findings. I am not comfortable with the way in which it has been discussed. The study’s authors agreed with the reviewer’s comments and will edit a more concise summary of the study’s findings.

66) Paragraph 11: Line 2: I am not comfortable with the use of the phase ‘negative attitudes towards sexual and reproductive health services’. The study’s authors agree with the reviewer’s comments and will remove the text.

67) Line 6: References 38 and 39 are 15 years old. The study’s authors agree with the reviewer’s comments and will include a recent reference.

68) Paragraph 12: Line 5: Reference 42 is 11 years old. The study’s authors agree with the reviewer’s comments and will include a recent reference.

Limitations
69) Paragraph 1: No changes suggested.
70) Paragraph 2 and 3: The points made are valid but do not belong in this section on limitations. The study’s authors agreed with the reviewer’s comments and will revise the limitation section.

Conclusion
71) No changes suggested.

Reply to Reviewer’s report Reviewer: Kelly L L’Engle
Reply to comments on the manuscript:

Major Compulsory:

72) The manuscripts needs a hard edit--there are many grammatical errors, and a number of phrases/sentences that are unclear in the English writing.

The study’s authors of the study agree with the reviewer’s comments and will correct grammatical errors in the manuscript.

73) The description of methods is insufficient, and many more details need to be added. --From who was informed consent and/or assent obtained? --Please describe the two regions from which youth were sampled.

The study’s authors agree with the reviewer’s comments and will insert a brief one sentence statement descriptive of both the rural provinces of Cambodia. Consent was obtained from the parent or guardian of the youth. At the beginning of each interview each youth was read a consent informing him/her of the risks, benefits, and right to not answer questions prior to interviewing.
74) Peer-to-peer interviewing is referred to, but there is no description of this so it is not clear what role this played in data collection and who conducted the actual interviews.

The study’s authors understand the reviewer’s comments and will insert a sentence in text clarifying completed interviewing.

75) On page 15, you state that "many declined to respond to questions about their personal sexual practices." Please add details about response to specific groups of questions or individual questions; this is a major issue that has substantive implications for the generalizability of your findings.

The study’s authors agree with the reviewer’s comments and will insert a sentence describing the low response to sexual related items.

76) Methods section: Methods section, Survey Questionnaire, there are several questions that appear exactly redundant with others--this may be a problem with the translation, but in any case needs to be addressed: (1) does your household have enough income, and do you think it is enough income? and (2) Do you plan to see a provider and Do you definitely plan to see a provider?; among others.

The study’s authors agree with the reviewer’s comments and will delete from the text redundant questions from the methods section.

Relatedly, in Table 1, please clarify what the education levels correspond to, for those not familiar with the Cambodian educational system.

The study’s authors agree with the reviewer’s comments and will edit Table 1 educational level to the national Cambodian educational system.

77) There are other indicators that are not clearly described: for example, on page 9 you refer to "attitudes toward future sex in their remaining adolescence" which does is quite unclear; on page 13 you refer to "youth feeling ready to cause a pregnancy" and "wanted free sex" and this is unclear.

The study’s authors agree with the reviewer’s comments and will edit the methods section with an explanation of these youth sexual reproductive health indicators.

78) In the Results section, please note that it is incorrect to state that there were differences across groups when the differences were not statistically significant- you can refer to trends in your data but please be more careful with these statement.

The study’s authors agree with the reviewer’s comments and will edit the results section.

79) Page 14 is replete with such statements about "increased risk" when your data showed trends that did not reach statistical significance. Also, you ran a number of statistical test so you need to be aware that by chance some of these will result in statistically significant findings.

The authors agree with the reviewer’s comments and will edit the results section.
80) A number of indicators are presented in this manuscript. There are too many tables, so perhaps your team can try other presentation forms such as visuals using graphs; this may work well for alcohol and drug practices, for example. The study’s authors will consider the reviewer’s comment.

81) For this manuscript, I suggest deleting some of your analyses and focusing on fewer indicators. Also, for statistical testing, cells/subgroups that have fewer than 5 responses are often not valid to include in your tests, for many types of analyses. Please work with your statistical expert to address.

The study’s authors agree with the reviewer’s comment and will exclude any data that lack sufficient observations for subsequent analyses.

**Discretionary Revisions**

82) I recommend changing your title as it is redundant, to Characteristics of Sexual and Reproductive Health and Risky Behaviors in Rural Cambodian Youth. The study’s authors agree with the reviewer’s comment and will modify the manuscript title.

83) What are some reasons that girls might report having not enough income more often than boys?

The study’s authors reply to the reviewer comments: there are several reasons why youth rural girls might reply that their household does not have enough income. These include 1) a lack of political will by the national government to invest in rural communities with development and sustainable economic policies, 2) National government investment targets urban and not rural communities, 3) low minimum wage that does not provide enough income to support rural Khmer families.

84) On page 13, you refer to a "lack of reproductive health knowledge by the parent." This belongs in the discussion instead, and please elaborate as it is not clear the context of this statement.

The study’s authors agree with the reviewer’s comment and make the suggested change to the text.

85) On page 16, please provide context/comparison between your samples’s sexual debut and activity in comparison to other samples of Cambodian youth.

The study’s authors agree with the reviewer’s comment and inserted a comparison of sexual activity from a similar study population.

86) On page 16, you state several reasons why few youth reported using sexual health services; however, you are missing a major reason—that many youth just don’t need or perceive they need these services.

The study’s authors agree with the reviewer’s comment and inserted a statement indicating a potential reason for not seeking sexual reproductive health services “In addition, some youths might feel they might not need any sexual reproductive health information or services.”
87) Please elaborate in your discussion, on the role of parents in educating youth about sexual health as you state they are under prepared but do not provide further elaboration.

The study’s authors agree with the reviewer’s comments and inserted a sentence emphasizing how many parents of rural Cambodian youth are simply ill-prepared to explain reproductive health and adverse outcomes.

References


