Author's response to reviews

Title: HIV/AIDS awareness and risk behavior among students in Semey, Kazakhstan: a cross sectional study

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

Thank you for the valuable comments from the reviewers! We have revised our manuscript according to the recommendations. The answers to the specific comments are marked in red in the text below.

With best regards

Marit Hansson (corresponding author)

**Reviewer 1 report**

**Title:** HIV/AIDS awareness and risk behavior among students in Kazakhstan: a cross sectional study  
**Version:** 2  
**Date:** 2 April 2008  
**Reviewer:** Audrey Pettifor  
**Reviewer's report:**

Review
The authors present a descriptive paper on the knowledge, attitudes and practices (KAP) of students in one area of Kazakhstan, Semey. There are a number of areas where the manuscript could be strengthened.

All are major compulsory revisions
1. Is the question posed by the authors well defined?  
   Yes although it is not clear to me that the second aim can be answered by this study. The authors state that they are looking for factors that may contribute to the epidemic in the future? I am not sure this is possible. Certainly this is a descriptive paper of knowledge, attitudes and practices but perhaps a multivariable analysis of factors associated with unprotected sex might need to be done to get a better handle on the second aim.
   **We agree that our study do not answer the second aim on factors contributing to the future epidemic and have excluded that part.**

2. Are the methods appropriate and well described?  
   The methods could be stronger, this is a convenience sample First, the methods of the paper need to be better structured by topic, for example, all information on the study population, recruitment and enrollment into the study in one paragraph, all information on the questionnaires and topics/measures in the questionnaire in one paragraph, all information on the statistical analyses in one paragraph. Right now all the information is mixed together and in no clear order which makes it hard for the reader to follow.
   **The method section is revised according to the recommendation.**

How were the universities selected? Were there any eligibility criteria? The schools were selected to give a broad picture of the attitudes and knowledge among students in Semey. The Medical University of Semey, the four largest non-medical universities in Semey, and four high schools in different parts of the city were chosen.
Why were the interview conducted in English? Do most students speak English fluently? When the student’s knowledge of English was good enough, the interviews were conducted in English based on the hypothesis that the less people present, the less they would be inhibited to answer sensitive questions. At the medical academy most of the students have a limited knowledge of English. This is also true for the high-school students. The other university students consisted to some extent of language students who spoke English well. In eight of the interviews an interpreter was used.

How were the qualitative interviews analyzed? Are they in-depth interviews or semi-structured? Were they tape recorded? The interviews were semi-structured, centering around certain topics included in the text. They were tape recorded and transcripts written down and analyzed afterwards.

How were the 23 people selected for the interviews and how did they break down by the 3 group (med students, university students, high school)? Now included in text. Out of the 600 students that answered the questionnaires, 23 volunteers were selected for semistructured interviews, by asking for volunteers in the classes in which the questionnaires were distributed. The volunteers were asked to participate directly after answering the questionnaires with an appointment later the same day in an undisturbed room. Of the interviewed 10 were men and 13 women. Eight were medical students, seven studied at other universities and eight were high-school students. Age ranged from 18-22 with a median age of 20 years old.

Were the 600 interviews close-ended and structured interviews? They interviews were semi-sctructured and the questions open-ended, sometimes probing.

What was the response rate for the survey- did you recruit more than 600 and how many refused? Now included in text. A total of 609 questionnaires were given out and all were returned. From these nine questionnaires were excluded from the analysis; eight because a page was missing and one because the answers were obviously not serious. This makes a total of 600 questionnaires in our analysis with a response rate of 99%.

Was informed consent and ethical approval obtained to conduct this study? Informed consent was obtained, but approval from Ethics Committee is not needed in Kazakhstan for studies with no registration of names and where the individual responders not can be identified. A letter from the Ethics Committee in Semey is attached.

3. Are the data sound? The authors seem to imply that statistical test to determine differences in proportions or means (such as chi-square or t-tests) were conducted? P values are mentioned but these do not seem to be in the text? If differences in key outcomes by gender, age, location or recruitment venue were tested for these should be more clearly outlined. This is clarified in the method section. If the 95% confidence intervals are not overlapping the differences were regarded statistically significant with p-value < 0.05.

In the results, it is not clear when the authors are presenting the quantitative survey data and when they are presenting data from the IDIs. This is only problematic in that the
quantitative survey comes from a larger sample and thus may be ‘more representative’ of the students from which they were sampled while the qualitative interviews give context but are not mean to be representative- so please make clear in the structure of the paper. The text has been clarified as to what is based on questionnaires and what is based on interviews.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?  
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?  
The discussion seems to mainly be repeat of the findings in the results. Please use the discussion as a venue rather to talk about the key findings of the paper in the context of other knowledge of HIV and sexual behavior in young people in Kazakhstan or in the region or globally. We have made the discussion shorter by removing details on results.

6. Are limitations of the work clearly stated?  
No. There does not seem to be a limitation section. A limitations section is added.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?  
This could be strengthened. The reference section is to some extent revised.

8. Do the title and abstract accurately convey what has been found?  
Yes

9. Is the writing acceptable?  
Yes

Level of interest: An article of limited interest

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 2 report
Title: HIV/AIDS awareness and risk behavior among students in Kazakhstan: a cross sectional study
Version: 2 Date: 21 May 2008
Reviewer: Ademola Ajuwon
Reviewer’s report:

Main points of the manuscript
This paper presents findings from a survey on HIV/AIDS knowledge and risky behaviors among students in Kazakhstan. The paper adds important data to what is currently known about HIV-related behaviors among young persons from this part of the world. However, there are four major problems with the manuscript.

First, the introduction did not provide sufficient background information to justify the focus on young Kazakh. The background is revised with the text: The countries of Central Asia are likely to experience a serious crisis of HIV/AIDS over the next 20 years, with a development concentrated to injecting drug users, followed by a generalized epidemic with sexual transmission as the predominant mode [2]. Young sexually active people form a bridge population through which the epidemic could spread from risk groups, such as sex sellers and intravenous drug users, into the general population [5], [6], [7]. As such knowledge about their attitudes and behavior is important in designing and implementing effective preventive measures. The aim of this study is to evaluate the knowledge, attitudes and risk behaviour among students in the city of Semey, a potentially important group in predicting and preventing an outbreak of the HIV epidemic in the Republic of Kazakhstan.

Secondly, many components of the methods of data collection are not clear. The text in the method section has been revised.

Thirdly, it is difficult to understand the results because of the style of presentation. Although data were collected through self-completed questionnaire and face-to-face interviews, no such distinction is made in the data presented. The text has been clarified as to what is based on questionnaires and what is based on interviews.

Finally the discussion of the major findings is too long. The discussion is made shorter.

I have provided specific suggestions on how the authors can address these issues such that the paper can be accepted for publication. The details about my suggestions for each section of the manuscript are provided below.

Major Compulsory Revisions
Introduction

1. Many of the statements in this section are vague and need to be revised. For example, the authors should put into context the time-frame being referred to with respect to the first sentence. The year referred to is added.
Secondly, evidence should be provided to support the claim that “since 2000 … the growth rate of the epidemic has been fastest in the world…” Text is added.

2. Does the statement ‘although injecting drug use is still the most significant route of HIV transmission …’ refer to the situation in Kazakhstan or elsewhere? Please clarify. It refers to Kazakhstan, which is clarified in the text.

3. There is need to provide some research evidence to support the claim that young persons are the gateway through which HIV will spread to the general population. Have there been previous studies confirming that young Kazakh participate in risky activities that elevate their risk of infection to HIV? Please clarify. This is clarified in the introduction, see also above (second paragraph).

Methods
1. This is the weakest component of the paper. Many aspects of the methodology are not clear. For example, how many of the 600 respondents are medical students, other university students and high school students? How were these students approached for the purpose of recruitment into the study? The method section is revised and is answering these questions.

2. It will be helpful to describe the social context in which this study was conducted. I suggest that the authors create a section to describe the study area so that readers have a sense of the social and economic context in which the study took place. A section describing the social context is added to the Background.

3. The description of the questionnaire used for data collection in the second paragraph of page 4 is confusing. What do the authors mean by ‘general questions” and “personal questions”? It is better to simply specify the types of questions asked. This is revised according to the suggestions.

4. How were the interviews being referred to in the third paragraph of page 4 conducted? Who conducted these interviews? The interviews were conducted by Marit Hansson and Leo Stockfelt. The interviews were tape recorded and transcript written out and analyzed.

5. The sentence ‘to find students to participate in the interviews we asked in the classes … and set a time for later same day in an undisturbed room’ is not clear. Are the authors saying that students who participated in the interview were recruited from the same classes where respondents for the questionnaire were selected? If this is the case then is it possible that a student would have completed both the questionnaire and be interviewed at the same time? Please clarify. All the students interviewed had also filled in the questionnaires first.

Results
1. The results section needs to be reorganized. Since there are three categories of students involved in the study the results should be presented such that the
responses for each category of respondents are shown. When appropriate the results from the different categories are displayed.

2. I suggest that a table should be created to describe the demographic profile, (age, sex, religion), of the students using the format already suggested. A table is included in the document.

3. It is difficult to understand the results because of the style of presentation. For example, one is not sure which data sources are being reported; there is need to clarify this. This is clarified in the text.

4. Many of the sub-headings created to present the data are vague. For example, what do titles such as ‘family’, protection, testing, sexuality, homosexuality, buying sex’ mean? I suggest the authors create about four major titles including knowledge, attitude towards testing for HIV, sexual behavior and use of drugs. Issues relating to homosexual practices, buying and selling of sex could come under the section of sexual behavior. The subheadings are changed.

5. There are several unsubstantiated statements which need to be revised; for example instead of saying ‘some of the students stressed…’ page 7, it is better to state the actual % of students; other examples of such statements are ‘very few students answered that they had sexual relations …’ page 10; ‘many talked about drug use as a route of HIV transmission in Kazakhstan’ page 12. This is revised in the text.

6. There is inconsistent use of the words ‘responders” and “respondents’. It is better to use the latter and be consistent throughout the manuscript. This is revised.

7. It will necessary to describe in greater details the profile of the 32% of the men who reported they had bought sex; for example what is the mean age of these students; how many of this category of students are medical students and how many are high school students? This is now included in the text.

Discussion
1. The discussion is too long and need to be edited to make it concise. The discussion should be reorganized such that all relevant issues on sexual behavior are discussed in the same paragraph rather than having them scattered. For example, all issues relating to sexual behavior including sexual experience, prostitution and homosexuality should be discussed possibly in one or two paragraphs. The discussion is made shorter. All information of sexual behavior is discussed in two paragraphs.

2. The authors claimed in third paragraph of page 15 that more males reported having more sexual partners than females because of the ‘greater acceptance of male sexuality …’ but did not specify whether this acceptance applies to Kazakhstan or elsewhere. This is excluded from the text.
3. How is stigmatization of homosexual people a risk factor among students of Semey? Please clarify. Stigmatization may lead to difficulties reaching this group of students with information and to their partial exclusion from testing and health care.

Minor Essential Revisions

Title
I suggest a slight change in the title of the paper namely ‘HIV/AIDS knowledge and risk behavior among students in Semey, Kazakhstan’. This title is more appropriate given the fact that the survey was limited in scope to students from one city, Semey in Kazakhstan. The title is changed.

Abstract
1. The results presented in the abstract are scanty. It will be helpful to present more data on sexual behavior. For example, it is necessary to present the % of students who had had sex before indicating the number involved in purchase of sex. This is included in the abstract.

2. The conclusions drawn are not based on the data presented in the results section. For example, the authors stated that the main risks for HIV spread among young persons are prostitution and intravenous drug use, yet there is no data to support this claim in the results section. This should be addressed. The conclusions are revised.

Ethical Issues
3. With respect to the ethical issues involved in the study, it is not enough to say that participation in the study was voluntary and that students could drop out of the study at any time. The authors need to state whether or not the study was approved by any Ethics Review Committee, they also need to clarify whether students completed an Informed Consent Form before their enrollment into the study. Informed consent was obtained, but approval from Ethics Committee is not needed in Kazakhstan for studies with no registration of names and where the individual responders not can be identified. A letter from the Ethics Committee in Semey is attached.

4. There are contradictory statements in the conclusion. The statement ‘… knowledge concerning ways of transmission and protection is good, although this is superficial’ is contradictory. How can knowledge be said to be good and superficial at the same time?. Please edit this. The conclusions are revised

Discretionary Revisions
None

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