

Reviewer's report

Title: A study of HIV/AIDS related knowledge, attitude and behaviors among female sex workers in Shanghai China

Version: 2 Date: 7 April 2010

Reviewer: Juan Pablo Gutierrez

Reviewer's report:

Major compulsory revisions

Introduction

My previous comments remain; it is important to improve the background to the epidemic in general, discuss risk behaviors instead of high risk population. It is not clear how a paper on sex work could be the only reference for how the epidemic had spread in China.

Methods

More detail on the mapping done to understand how comprehensive it was is needed to evaluate it; this could affect the representativeness of the sample, so the external validity of the results. This include how sites were identified, how it was assessed that all sites were included, and how the size of the site was establish.

More detail on the informed consent procedure is also needed, as well as the statement on what IRB approved the study.

The authors state that:

"By a detailed review of the literature and Small-scale pre-survey on commercial sex, female sex workers in Shanghai, we found the risk behaviors such as unprotected sexual intercourse is about 38%. According to research cross-sectional sample size estimation approach, allowing the error to take $d=0.15P$, $P=38\%$, $Q = 1-P =62\%$. $##0.05$.The sample size calculation method we used was $N=t^2PQ/d^2=290$."

The estimation that I came up for the same proportion is very similar (251); however, this estimation is not taking into account the clustering; an estimation of the intra-cluster correlation (ICC) is needed to adjust the sample (the design effect). There are recommendations in the literature that for health outcomes the ICC is at least 0.05 (data from other studies where I have been involved found an ICC for condom use ranging from 0.01 to 0.08; using these values (0.01, 0.05 & 0.08), the adjusted sample size would be 274, 365 & 432, respectively. It is in the analysis where including the ICC is needed, as it would affect the precision of the estimates (wider confidence intervals) that could change the significance of the differences.

Results

The results need to include the correction for the clustering (in all tables).

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

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests