Author's response to reviews

Title: HIV and Hepatitis C virus Test Uptake at Methadone Clinics in Southern China: Missed Opportunities for Expanding Case Detection of Bloodborne Infections

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Version: 2 Date: 4 August 2013

Author's response to reviews: see over
August 4, 2013

Re: HIV and Hepatitis C virus Test Uptake at Methadone Clinics in Southern China: Missed Opportunities for Expanding Case Detection of Bloodborne Infections (BMC Public Health: 5918169159207267)

Dear Vargas,

Thank you for considering our manuscript for publication in BMC Public Health. I am pleased that the paper was found to be of interest to BMC Public Health and that you have requested a revised version. The reviewer feedback was helpful in revising the manuscript. We are submitting a revised manuscript for your consideration.

Please do not hesitate to contact us for any further information.

Sincerely,
Li Ling
Reviewer's report

Title: HIV and Hepatitis C virus Test Uptake at Methadone Clinics in Southern China: Missed Opportunities for Expanding Case Detection of Bloodborne Infections

Version: 1 Date: 8 May 2013

Reviewer: Eric Nehl

Reviewer's report:

This research “HIV and Hepatitis C virus Test Uptake at Methadone Clinics in Southern China: Missed Opportunities for Expanding Case Detection of Bloodborne Infections used a cross-sectional research design including surveillance data and laboratory testing confirmation of HIV and HCV. The aim of this research was to explore individual and clinic-level factors relating to HIV and HCV testing uptake among a sample of 49 methadone clinics in Guangdong Province, Southern China.

The article makes a useful contribution to the literature because testing in China hasn’t been integrated in the past, methadone clinics are relatively new in China and serve patients at high risk for both HIV and HCV, and there is a research need to determine the clinic- and person-level factors associated with uptake. There is much potential in this lines of research. However, there are some limitations that diminish enthusiasm for the current paper.

Abstract

1. The abstract is acceptable.

Introduction

2. The introduction is acceptable.

3. The authors state that “Barriers to testing in methadone clinics…. Need to be systematically examined.” However, there are no true barriers assessed in the study. Please change this terminology.

Response:

The sentence is revised as (pg.5, lines76-77) "Associated factors to testing uptake in methadone clinics ....Need to be systematically examined."

Methods

4. The measures for this study at the individual level need significantly more explanation. It seems as though available data include drug type, injecting behaviors, needle sharing, and detoxification experience. However, the writing in
the results, discussion, and tables indicate that only lifetime injecting experience was included (and only as yes/no). There needs to be greater specification of what was measured, how it was coded, and what/why variables were included in the analyses. Additionally, use “ever injected drugs” throughout.

Response:
To clarify the individual variables, we deleted the sentences (pg.6, lines 97-99) “Socio demographic characteristics included sex, age, marital status, education completed, and employment status. Behavioral data included drug type, injecting behaviors, needle sharing and detoxification experience.”, and (pg.7, lines 134-135) “Individual-level variables included sex, age, marital status, education completed, employment status and drug injecting experience.”

Instead, individual level measurements were detailed described as following sentences (pg.7-8, lines 134-147)
“Individual-level socio-demographic characteristics included in the analysis were sex, age (<30 years old, 30-39 years old, 40-49 years old, >50 years old), marital status (married, unmarried), education completed (none/primary school, middle school, high school and above), employment status (employed, unemployed). Behavioral data in the system included major drug type, injecting behaviors (injecting, non-injecting), drug using way during the past half year (injecting, smoking/snorting, mixing injecting and smoking/snorting), needle sharing experience (sharing, non-sharing) and detoxification experience (ever had detoxification, never). Only drug injecting experience was included in the analysis. Major drug type was not included because more than 90% of individuals were heroin addicts, and detoxification experience was not included because almost all of them ever had detoxification experience. Drug using way during the past half year and needle sharing experience were excluded for they were highly correlated with injecting drug experience which resulted in multi-collinearity in the model.”

5. The clinic level data is straightforward.
Analysis
6. The descriptive analyses are largely acceptable. The HIV and HCV rates need to be presented.

Response:
The following sentence was added (pg. 10, lines 184-186) “Among ever-injected drug users and non-IDUs, HIV infected rate were 7.0% and 0.8%, and HCV infected rate were 75.5% and 32.6%, respectively.”

7. There needs to be further description of how variables were chosen for the final models.
Response:
The way of variable choosing was added (pg. 8, lines 151-152)
"Stepwise selection was used to choose the variables for the final model, first including the individual level variables and then including clinical level variables."

8. The main analyses pertaining to HIV and HCV uptake are acceptable. Please include the results from an initial empty multilevel model so the variance accounted for by the clinic can be assessed. Also, please describe if a sequential approach to evaluating the models was used and the results at each step.

Response:
Variance of random intercept ($\sigma^2_{\mu_0}$) of both the initial null model and the final model were added in table 3, table 4 and table 5. Since we added results of random part of the model in the table 3, 4 and 5, we had to make some minor change about the format of tables.

Description of model evaluation was added in the method section (pg. 8, lines152-155) “The final model should meet two criteria, first all variables in the model were significant, and second the –2log-likelihood value of the model was the smallest among all possible model fittings."

In addition, more description about variable coding was added (pg. 8, lines 155-158):
“To decide the way of coding discrete variables, being treated as dummy variable or grouped continuous variable, both coding ways were fitted and then compared the -2log-likelihood value. The way with smaller -2log-likelihood value was chosen.”

9. Were any cross-level interactions evaluated? Please describe if they were - and provide reasoning/include if they were not.

Response:
Yes, we did evaluate the cross-level interactions but did not report the result. The description was added (pg. 8, lines 158-161):
“To evaluate cross-level interactions, two-level model with random coefficients was also fitted and compared with model with only random intercept. The result showed -2log-likelihood value was not significantly
decreased using two-level model with random coefficients. Therefore, random intercept model was used for the final model.”

10. HIV and HCV uptake are evaluated separately throughout the paper. Only a final correlation is presented looking at the two jointly. There needs to be greater attention paid to the integrated outcome at these clinics. The authors should run similar multi-level analyses for a combined outcome as were conducted for each outcome separately.

Response:
We did further similar multi-level analyses for a combined outcome, and results was shown in table five. Description was given in result section (pg. 11-12, lines 221-226).

Limitations
11. The data are from 2008. Please list this as a limitation and describe any policy changes since then.

Response:
In limitation section, the sentence was added (pg. 15, lines 296-298): “Forth, the data was collected at the end of 2008, but the national policy about HIV and HCV testing at methadone clinics has not changed since then.”

Discussion
12. Please include and discuss the HIV/HCV rates from these clinics.

Response:
We added in discussion (pg. 12, lines 243-246): “compared with the estimates of a national wide systematic review among IDUs, HIV prevalence rate at methadone clinics in Guangdong Province were lower (7.0% versus 12.55%), but HCV prevalence rate was higher (75.5% versus 66.97%) [9], which suggest closer attention is needed for HCV testing.”

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests
Reviewer’s report

Title: HIV and Hepatitis C virus Test Uptake at Methadone Clinics in Southern China: Missed Opportunities for Expanding Case Detection of Bloodborne Infections

Version: 1 Date: 15 June 2013

Reviewer: Carolyn Day

Reviewer’s report:

Thank you for the opportunity to review this interesting manuscript. Understanding trends in blood-borne virus (BBV) testing is important as it can enhance strategies to bolster uptake of testing and lead to better planning of prevention and treatment strategies. Therefore given the burgeoning drug and concomitant BBV epidemic, especially in a country the size of China, the issues is very relevant to an international public health journal.

The study was well executed and well written. I have only minor comments which are detailed below.

Minor essential revisions

1. The authors state that free voluntary testing is available to individuals but do not state whether pre- and/or post-test counselling is available, which as they point out in the discussion, is an important aspect of successful screening programs. Results and Table 2 indicate that this is available at most but not all, but the variable is voluntary “HIV counselling and testing”. I assume this means that in the context of this paper testing and counselling are not necessarily co-occurring, i.e. counselling is always provided when testing is, please clarify. As there is no mention of HCV counselling, I assume this is unavailable anywhere? Once assumes form the discussion that it is not a routine part of screening at any of the clinics, but clarity on this issue is required.

Response:

Pre- and post-test HIV counseling is suggested by the national guidelines, but is not mandated to offer. Given the limited human resources, not each clinic had the capability of providing counseling service. HCV counseling was not specifically emphasized at methadone clinics, and not available elsewhere. To clarify this, we revised the term “HIV counseling and testing” in table 2 as “HIV counseling”.

2. The “voice” of the user is missing in this research and whilst that is noted in the limitations, more caution needs to be applied to the results. Whilst I agree that methadone clinics can be used for scaling up testing and in other settings such as Australia, methadone clinics have been cited by drug users as preferred testing locations, I note that in China these are the only sites where free HCV testing is available, therefore there is very little choice for drug users.
in that setting. I think this is warrants a mention.

Response:

We added in discussion (pg. 12, lines 243-246):
“compared with the estimates of a national wide systematic review among IDUs, HIV prevalence rate at methadone clinics in Guangdong Province were lower (7.0% versus 12.55%), but HCV prevalence rate was higher (75.5% versus 66.97%) [9], which suggest closer attention is needed for HCV testing.”

3. Following on from point 3, suggest making a brief comment that research examining clients’ perspectives is necessary to fully interpret these results.

Response:
We added (pg. 15, lines 295-296):
“Research examining clients’ perspectives is necessary to fully interpret our results.”

4. VCT – please define first use.

Response:
VCT was first used in abstract and was defined.

Discretionary Revisions

5. As stated above, this is an important issue, but I do not think the authors make the most of it. I would suggest a sentence or two be inserted into the introduction to emphasise the international relevance of this research.

Response:
We added the following sentences in the background section (pg.4, lines 52-52):
“Although HIV testing is currently accessible in a variety of health care settings in many countries, missing testing continues to be a common problem worldwide, especially among hard-to-reach populations such as drug users [3, 4].”

6. The clinic level finding that staffing may limit uptake is very important and has international relevance. A little more emphasise may help boost this point.

Response:
We added the following sentences in the discussion section (pg.14, lines 279-283):
“Health care providers in a typical methadone clinic in China experience a heavy workload, a problem that has also been reported in the U.S [37]. Often two or three clinicians are managing care for more than 100 patients, including writing prescriptions, providing counseling and health education, tracking patients lost to follow-up, and preparing reports [38].”
**Level of interest:** An article of importance in its field

**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