Author's response to reviews

Title: Estimating the size of the MSM populations for 38 European countries by calculating the survey-surveillance discrepancies (SSD) between self-reported new HIV diagnoses from the European MSM Internet Survey (EMIS) and surveillance-reported HIV diagnoses among MSM in 2009

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Author's response to reviews: see over
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Author's response to rev see over
Reviewer’s report

Title: Estimating the size of the MSM populations for 38 European countries by calculating the survey-surveillance discrepancies (SSD) between self-reported new HIV diagnoses from the European MSM Internet Survey (EMIS) and surveillance-reported HIV diagnoses among MSM in 2009

Version: 7 Date: 11 August 2013

Reviewer: isabelle devaux

Reviewer’s report:

I would like to thank the authors for including previous comments.

Response: We also would like to thank the reviewer for constructive comments.

Major compulsory revisions:

1) The length of this article makes the reading fastidious. May I suggest the authors to summarize the information one more time, especially when it comes to references to previous published work?

Response: we re-read the manuscript several times to identify abundant information. We found a few passages which could be deleted:

Methods section, page 6: “A first survey draft was discussed by all partners at a two day summit. Survey development continued iteratively through user piloting and partner feedback until the English language content was agreed. Transfer to an online survey application was followed by further testing before on-screen translation into 24 other languages, final testing and sign-off.”

Results section, page 11: “… for the dutch surveys the absolute number of participants diagnosed with HIV in the year before the survey could not be determined, because the respective question could be interpreted – and obviously was interpreted - by men diagnosed with HIV as referring to viral load tests conducted in the previous 12 months. Thus the proportion of men reporting an HIV test in the year before the survey turned out to be much higher than for the other countries.”

Results section, page 12, description of Table 1: see change as described below.

Discussion section, page 14: “E.g. when applying SSD calculations to different age groups in several western and central European national datasets and comparing the results with modelling data based on newly reported infections, the SSD factor seems to differ by age group, with higher values for older age groups [6]. Furthermore, one has to remind the distinct relationship between SSD and MSM population size: as long as the surveillance data on numbers of newly diagnosed infections among MSM are assumed to be reliable, the MSM population size increases if the SSD increases.”

However, the longest part of the manuscript is the discussion section, and we were unable to identify abundant information there. It is just space-consuming to discuss potential measurement errors for 38 countries. It may also be that we as authors become blind to possibilities to shorten the text. So we are ready to consider every concrete suggestion we get, but felt unable to shorten the manuscript substantially. By the described deletions the manuscript has been shortened from 5886 to 5615 words.
2) Could the authors describe the information below within the text or in a table but not both?

Table 1 presents the number of EMIS participants per country [column D]; the total number of EMIS participants reporting to have been diagnosed with HIV in 2009 [column E]; the total number of newly diagnosed cases of HIV in 2009 among males as reported to ECDC by 2010 [column F]; the ECDC-reported (as of 2010), and the adjusted (after consultation of national surveillance representatives) number of newly diagnosed HIV infections in 2009 that are assumed to be MSM [columns G+H], the estimated total size of the MSM population based on the formula N_pop = HIV_pop*N_surv*SSD/HIV_surv [column K], and the proportion of the total adult male population (M) that would be estimated to be MSM based on this N_pop estimate [column L].

Response: The description of Table 1 in the text has been shortened:

Table 1 presents the proportion of households with internet access in the 38 countries with EMIS sample sizes exceeding 100 participants [column C], the estimated SSD based on the formula SSD=1.67*national household internet access*0.6 [column J], EMIS-measured and surveillance data necessary to estimate the total size of the MSM population based on the formula N_pop = HIV_pop*N_surv*SSD/HIV_surv [columns D, E, H, K], and the proportion of the total adult male population (M) that would be estimated to be MSM based on this N_pop estimate [column L].

3) I would advise the authors to verify some of the information mentioned in the article with concerned representatives (I could possibly assist in this process):

Are the countries listed below really reporting “zero” HIV diagnosis among MSM in 2009?

For countries reporting zero HIV diagnoses among MSM in 2009 (Estonia) in their surveillance system…we estimated the minimum number of MSM expected to have been diagnosed with HIV in 2009 for an assumed MSM population size of at least 1% (resp. 2% for Estonia – comparable with Latvia and Lithuania – and 3% for Austria – comparable with Germany and Switzerland) given the SSD estimated on the proportion of households with internet access (see Table 1, column I).

Response: The information that there was no HIV diagnosis reported among men attributed to sex with another man in Estonia in 2009 was verified with the respective country representative. Quote: “Unfortunately our passive surveillance system does not pick up MSM cases. It does not mean there are none, it’s just that these are not documented. Most likely they are under ‘heterosexual’”.

4) Such statement would need to be verified by ECDC HIV contact points in the respective countries:

However, after risk re-distribution of cases with unknown transmission risk, in Poland and Russia the ratio dropped to a level comparable with other countries.

This strongly suggests that surveillance data are unreliable in terms of transmission risk categorization (or number of reported cases) also in Bulgaria, Belarus, Romania, Turkey, and Ukraine.

Response: Since Belarus, Russia, Turkey and Ukraine are no EU members, there are also no official ECDC HIV contact points in these countries. Attempts to establish contact with national HIV/AIDS surveillance institutions in Russia, Belarus and Turkey were unsuccessful. Observations regarding transmission risk categorization in national surveillance data were discussed with representatives from the ECDC HIV contact points in Poland and Romania. For Poland and Turkey country
representatives confirmed that transmission risk information is incomplete and that social stigmatization of same sex behaviour is the reason for not enforcing the collection of such information. The Romanian country representative offered no explanation for the obvious mismatch of self-reported new HIV diagnoses among EMIS respondents from Romania with officially reported cases among MSM in the surveillance data. One possibility which was discussed but was not confirmed by the country representative was underreporting of HIV cases from the private health care sector in Romania. For Russia, and likely as well Belarus, it is known that many infections are diagnosed by routine mass testing in medical facilities. Transmission risk information is rarely collected in these settings. This explains the large proportion of missing transmission risk information in these countries.

Not at last with regard to the length of the manuscript we decided not to report such details in the manuscript.

5) A list of persons is provided at the end of the article for providing national data and study results, and for validating national surveillance data reported to ECDC. Did the authors verify if these persons were the ECDC national HIV surveillance focal points?

Response: The persons listed at the end of the article for providing national data and study results are working in the institutions which form the ECDC national HIV surveillance focal points except for Turkey and Russia, which are both no EU member states. This has been clarified by adding a respective sentence in the Methods section on page 7:

“Due to unresponsiveness of official surveillance institutions, contact points in Russia and Turkey consisted of EMIS NGO partners.”