

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	HIV Prevalence among Men Who Have Sex with Men following the Implementation of the HIV Preventive Guideline in Tanzania: Respondent Driven Sampling Survey
AUTHORS	Alexander Ishungisa, Mwijage; Moen, Kare; Leyna, Germana; Makyao, Neema; Ramadhan, Angela; Lange, Theis; Meyrowitsch, Dan; Mizinduko, Mucho; Likindikoki, Samuel; Leshabari, Melkzedek; Mmbaga, Elia John

VERSION 1 – REVIEW

REVIEWER	Vincent C Jembe University of Malawi, School of Public Health and Family Medicine, The Department of Health Systems and Policy, Malawi.
REVIEW RETURNED	24-Feb-2020

GENERAL COMMENTS	<p>1. Abstract</p> <p>a) In the abstract under "Objectives", there is a missing piece of information. The study does not only estimate HIV prevalence. It as well characterizes HIV risk in the MSM population in Dar es Salaam, Tanzania. This information should be added to the objectives.</p> <p>a) Under "Participants" section, the authors should be specific and clear. The statement "Men who occasionally or regularly have sex with another man" is ambiguous. It is better to state: " men self-reporting ever having anal sex/or in the the past six/three months. etc". Again, include a time frame on how long those recruited into the study were supposed to have lived in Dar es Salaam city.</p> <p>Background.</p> <p>a) The background information is adequate. The study objective is clearly stated</p> <p>Research Ethics</p> <p>a) The core ethical considerations such as approval of protocol by an ethics committee, seeking consent from participants etc have been addressed. However, the authors indicate that apart from HTC and incentives, participants were given health education and condoms. The authors should state if water based lubricants were given to participants as well and not just condoms. If not, why this was the case.</p> <p>Results:</p> <p>Broadly, analysis has followed standard procedures of analyzing RDS data. The results have been presented clearly and are reflective of the broad study objectives. However, the authors may want to consider the following:</p> <p>a) Standard deviation is normally presented with a \pm sign preceding the figure (e.g line 42).</p>
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	<p>b) The section need some editing (eg see line 45 in the manuscript). This is applicable too to other parts of the manuscript.</p> <p>c) Under "Sexual practices and risks" section, the authors report prevalence of condom use and condom breakage in this population. However, absent from the analysis is use of water based lubricants (WBL). This data is important because it is an established fact that condom usage during anal sex, in the absence of WBL is not as effective.</p> <p>Study limitations</p> <p>a) The authors should include a section on limitations emanating from the selected study methodology- mainly from the study design itself and the choice of RDS as both a sampling and analytical approach.</p>
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REVIEWER	Leili Tapak Iran Hamadan University of Medical Science
REVIEW RETURNED	14-Mar-2020

GENERAL COMMENTS	Please report the used sample size formula Please provide a flowchart for the study steps and design
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REVIEWER	Zixin Wang the Chinese University of Hong Kong, Hong Kong, China
REVIEW RETURNED	02-Jun-2020

GENERAL COMMENTS	<p>This manuscript described a cross-sectional survey of 777 MSM recruited by respondent-driven sampling in Tanzania. I have some concerns about this manuscript.</p> <p>Major comments:</p> <ol style="list-style-type: none"> 1. The authors tried to compare their findings with a previous study published in 2014. However, they did not give any detail about the published study in the manuscript and I cannot access it online. It is unclear whether these two samples are actually comparable. This is one major weakness of this paper. 2. The authors mentioned the comprehensive guideline of HIV interventions for key population implemented in Tanzania. I suggest the authors give more details about the guideline and discuss its implementation in the country. Moreover, why the CHIP implementation would influence HIV prevalence and associated factors among MSM should be mentioned in the Introduction. Many readers may be unfamiliar with the guideline and the context of Tanzania. 3. It seems that the authors attribute to the decline of HIV prevalence to CHIP implementation. It is unclear other than the guideline, what other interventions were implemented in the country. It is hard to draw such conclusion. 4. The authors used RDS to recruit MSM. However, details related to the RDS are missing, such as number of referrals made by the seeds and participants and response rate. The authors used RDSAT to weight their data, however, they did not present the weighted data in the Tables.
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VERSION 1 – AUTHOR RESPONSE

REVIEWER: 1

1. Abstract

Comment

In the abstract under "Objectives", there is a missing piece of information. The study does not only estimate HIV prevalence. It as well characterizes HIV risk in the MSM population in Dar es Salaam, Tanzania. This information should be added to the objectives.

Authors' response: thank you for the observation. Missing information has been added.

Comment

Under "Participants" section, the authors should be specific and clear. The statement "Men who occasionally or regularly have sex with another man" is ambiguous. It is better to state: " men self-reporting ever having anal sex/or in the past six/three months. etc.". Again, include a time frame on how long those recruited into the study were supposed to have lived in Dar es Salaam city.

Authors' response: Thank you for your suggestion which have been incorporated in this revised version. Men recruited to the study were supposed to: (1) have had sex with other men in the past 3 months preceding the survey and (2) have had lived in the Dar es Salaam city for at least six months before recruitment into the study.

2. Background

Comment

a) The background information is adequate. The study objective is clearly stated

Authors' response: We appreciate for the complement.

Comment

Research Ethics

a) The core ethical considerations such as approval of protocol by an ethics committee, seeking consent from participants etc. have been addressed. However, the authors indicate that apart from HTC and incentives, participants were given health education and condoms. The authors should state if water-based lubricants were given to participants as well and not just condoms. If not, why this was the case.

Authors' response: Thank you for the complement and observation.

While we acknowledge the role of water-based lubricants in HIV prevention among individuals practicing anal sex, the study was required to adhere to the government guideline for Comprehensive HIV intervention package (CHIP) among key population of 2017 in which lubricants were not included as preventive commodity.

3. Results

Broadly, analysis has followed standard procedures of analyzing RDS data. The results have been presented clearly and are reflective of the broad study objectives. However, the authors may want to consider the following:

Comment

a) Standard deviation is normally presented with a \pm sign preceding the figure (e.g. line 42).

Authors response: Thank you for your overall complement on the result section and observation. We have made the correction in the sign as suggested.

Comment

b) The section needs some editing (eg see line 45 in the manuscript). This is applicable too to other parts of the manuscript.

Authors response: Thank you for your observation. We have made editing of the section and the whole manuscript as suggested

Comment

c) Under "Sexual practices and risks" section, the authors report prevalence of condom use and condom breakage in this population. However, absent from the analysis is use of water-based lubricants (WBL). This data is important because it is an established fact that condom usage during anal sex, in the absence of WBL is not as effective.

Authors' response: Thank you for this observation. As described earlier, water-based lubricants are not provided as part of the Tanzania guideline for comprehensive HIV intervention package (CHIP) for key populations in the country. This was therefore not assessed in this study.

4. Study limitations

Comment

a) The authors should include a section on limitations emanating from the selected study methodology- mainly from the study design itself and the choice of RDS as both a sampling and analytical approach.

Authors' response: Thank you for your observation and suggestion. The limitations of this study both in design, sampling and data collection has been added as suggested.

REVIEWER: 2

Comment

Please report the used sample size formula

Authors' response: Thank you for this suggestion. We have included a description of the sample size used for this analysis in the revised manuscript together with a reference for the same.

Comment

Please provide a flowchart for the study steps and design

Authors' response: Thank you for this suggestion. The study design and recruitment are described in the respective sections in the manuscript. We have added a recruitment tree also presenting initial seeds and recruitment waves and networks (figure 1).

REVIEWER: 3

Comment

The authors tried to compare their findings with a previous study published in 2014. However, they did not give any detail about the published study in the manuscript and I cannot access it online. It is unclear whether these two samples are actually comparable. This is one major weakness of this paper.

Authors' response: Thank you for this observation. The findings of the 2014 survey have been published and can be accessed online (Mmbaga EJ, Moen K, Leyna GH, Mpembeni R, Leshabari MT. HIV Prevalence and Associated Risk Factors Among Men Who Have Sex With Men in Dar es Salaam, Tanzania. *J Acquir Immune Defic Syndr*. 2018;77(3):243-249. doi:10.1097/QAI.0000000000001593). We agree that comparing the characteristics of the sample is critical and the comparison of the two study samples is presented in this manuscript in table 3 and well described in the manuscript. No significant statistical differences in other socio-demographic characteristics were observed between the two samples.

Comment

The authors mentioned the comprehensive guideline of HIV interventions for key population

implemented in Tanzania. I suggest the authors give more details about the guideline and discuss its implementation in the country. Moreover, why the CHIP implementation would influence HIV prevalence and associated factors among MSM should be mentioned in the Introduction. Many readers may be unfamiliar with the guideline and the context of Tanzania.

Authors' response: Thank you for this observation and suggestion. Given the word limitation, we have provided summary information of the content of the package in the introduction section of the revised manuscript as suggested.

Comment

It seems that the authors attribute to the decline of HIV prevalence to CHIP implementation. It is unclear other than the guideline, what other interventions were implemented in the country. It is hard to draw such conclusion.

Authors response: Thank you for your observation. All HIV preventive and curative intervention among key population provided in private, public or non-governmental organization were all guided by the CHIP. The National AIDS control programme coordinated all response to HIV in the country and ensure that they abide to the guideline. Scaled up training and intensified implementation of CHIP since 2014 seems to be the likely explanation for the observed decline in HIV prevalence among MSM reported.

Comment

The authors used RDS to recruit MSM. However, details related to the RDS are missing, such as number of referrals made by the seeds and participants and response rate.

Authors' response: Thank you for the observation and suggestion. We have added figure 1 which present the detail of the seeds and network sizes.

VERSION 2 – REVIEW

REVIEWER	Leili Tapak Hamadan University of Medical Sciences, Department of Biostatistics, Hamadan, Iran
REVIEW RETURNED	21-Jun-2020
GENERAL COMMENTS	No comments.