

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	What can lead to late diagnosis of HIV in an illegal gold mining environment? A qualitative study at the French Guiana border with Brazil.
<b>AUTHORS</b>	Floersheim, Charlotte; Musso, Sandrine; Eubanks, August; Douine, Maylis; Spire, Bruno; Sagaon-Teyssier, Luis; Parriault, Marie Claire; Girard, Gabriel; MOSNIER, Emilie

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Bedert, Maarten
<b>REVIEW RETURNED</b>	07-Feb-2022

<b>GENERAL COMMENTS</b>	<p>In my opinion, the revised manuscript is close to being acceptable for publications. The authors have worked well with the suggestions and comments from the first round of review. A few minor general comments and concrete suggestions remain.</p> <ul style="list-style-type: none"><li>- The level of English is sufficient but a thorough spelling check and grammatical editing is necessary.</li><li>- P5L9: is it possible to specify what type of “operations” are referred to?</li><li>- P6L19: is it necessary to maintain the reference to a “qualitative study” rather than an “anthropological study” as now mentioned in the title</li><li>- P7L7-10: There is a repetition of the ethics section later on in the text (P7L38-42)</li><li>- P12L37-38: the case describes also allows for a different interpretation. Where it is now associated with the non-identification of risk among heterosexual men, it might also be that medical staff are afraid to bring up HIV to patients as illustrated in other studies on late presentation (Bedert et al. 2021)</li><li>- Section on “having a functional body”. I think there is a significant overlap between the described gender roles, the importance of the construction of masculinity and the importance of having a functional body. This could be made explicit in the text.</li><li>- I am missing some references on masculinity in a mining setting which is a topic that has been described in multiple settings (e.g. Cuvelier 2014; Hendriks 2022).</li><li>- I agree with comment 4 raised by reviewer 2 in the first round. In their response, the authors identify that health care is available for those who seek it but there is a distinction to be made between the individual experience of people as they are satisfied with the care they receive and the structural lack of access to health care which is a distinction that the authors, as analysts, can/should acknowledge. This paper discusses late presentation. I would argue then that the actual decision to test, either a provider initiated test or a self-initiated test, is significant both from a structural and a personal point of view. In the description I would</li></ul>
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	<p>be tempted to refer to testing behaviour rather than “discovered their hiv status”.</p> <p>Bedert, Maarten, Udi Davidovich, Godelieve de Bree, Ward van Bilsen, Ard van Sighem, Wim Zuilhof, Kees Brinkman, Marc van der Valk, and John de Wit. 2021. “Understanding Reasons for HIV Late Diagnosis: A Qualitative Study Among HIV-Positive Individuals in Amsterdam, The Netherlands.” <i>AIDS and Behavior</i>, March. <a href="https://doi.org/10.1007/s10461-021-03239-3">https://doi.org/10.1007/s10461-021-03239-3</a>.</p> <p>Cuvelier, Jeroen. 2014. “Work and Masculinity in Katanga’s Artisanal Mines.” <i>Africa Spectrum</i> 49 (2): 3–26. <a href="https://doi.org/10.1177/000203971404900201">https://doi.org/10.1177/000203971404900201</a>.</p> <p>Hendriks, Thomas. 2022. <i>Rainforest Capitalism: Power and Masculinity in a Congolese Timber Concession</i>. Durham: Duke University Press.</p>
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<b>REVIEWER</b>	Li, Chunyan University of North Carolina at Chapel Hill, Health Behavior
<b>REVIEW RETURNED</b>	13-Feb-2022

<b>GENERAL COMMENTS</b>	<p>Thanks to the authors for revising the manuscript. It is significantly improved that I believe will make a meaningful contribution to our knowledge of health among this particularly vulnerable population. I have several minor comments below.</p> <p>The page numbers here I’m using refer to the one generated by the journal’s submission system.</p> <ol style="list-style-type: none"> <li>1. There are some English grammar errors throughout the manuscript that the authors may need to pay attention to before final submission. For example: <ol style="list-style-type: none"> <li>a. Page 4 of 102, line 33-35: the sentence “Populations here are ... since 2019” is not grammatically right.</li> <li>b. Page 5 of 102, line 3-4: the sentence “these campaigns ... this activity” is not grammatically right.</li> </ol> </li> <li>2. The authors do not have to address this in the manuscript, but regarding sharing back results to participants, I am curious what the authors had originally planned to do and how they might have adjusted the plan due to the interruption of COVID.</li> <li>3. Page 6 of 102: Both the first paragraph on this page and the Ethics paragraph repetitively presented ethical approvals.</li> <li>4. Page 9 of 102, line 3: Sizihno’s age is still disclosed. Need to take this out.</li> <li>5. Page 12 of 102: normally the paragraph of “study limitation” should appear right before the Conclusion.</li> </ol>
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### VERSION 1 – AUTHOR RESPONSE

<b>Reviewers’ comments – Reviewer 1</b>	<b>Authors’ responses</b>
In my opinion, the revised manuscript is close to being acceptable for publications. The authors have worked well with the suggestions and comments from the first round of review. A few minor general comments and concrete suggestions remain.	Thank you for your positive feedback

	The lines indicated correspond to the lines of the "main document"
The level of English is sufficient but a thorough spelling check and grammatical editing is necessary.	The text has been thoroughly proofread and copyedited by a professional copyeditor. Please note that UK spelling has been used.
P5L9: is it possible to specify what type of "operations" are referred to?	P3 L10 We specified the type of operations, adding the following:  "and the presence of the army, which carries out military training exercises and the dismantling of illegal gold mining sites" This is the main operation conducted by the French Army in French Guiana.
P6L19: is it necessary to maintain the reference to a "qualitative study" rather than an "anthropological study" as now mentioned in the title	The title change was previously requested by the editor: "Please revise your title so that it includes your study's design (qualitative study). This is the preferred format for the journal. Although the topic is relevant to our readership, please bear in mind BMJ Open is a medical journal ( <a href="https://bmjopen.bmj.com/pages/about/">https://bmjopen.bmj.com/pages/about/</a> ) not an anthropology journal, so please avoid the anthropological description where possible."  In line with this request, we decided to:  - change P4 L17 to "using an exploratory qualitative research approach"  - keep in P4 L33 the word "anthropological" in the methods section (specifically, "an ethnographic anthropological research study")  in order to be more specific concerning our method.
P7L7-10: There is a repetition of the ethics section later on in the text (P7L38-42)	P5 L27  We decided to combine these two sections in the ethics section.
P12L37-38: the case describes also allows for a different interpretation. Where it is now associated with the non-identification of risk among heterosexual men, it might also be that medical staff are afraid to bring up HIV to patients as illustrated in other studies on late presentation (Bedert et al. 2021)	Thank you for this point and for sharing this reference with us.  We agree that this different interpretation is valid, as some medical staff shared with us their difficulty to bring the issue of HIV into their medical consultations. We modified this sentence to show these concerns.

	<p>P12 L3:</p> <p>“The latter can also occur when medical staff do not consider heterosexual patients to be an at-risk population (54, 55), or when they are afraid to bring up the question of HIV during visits, considering it a sensitive issue (56).”</p>
<p>Section on “having a functional body”. I think there is a significant overlap between the described gender roles, the importance of the construction of masculinity and the importance of having a functional body. This could be made explicit in the text.</p>	<p>We agree and to highlight this overlap we modified the text as follows:</p> <p>P10 L1-L3</p> <p>“In addition to social backgrounds and working conditions, the importance of having a functional body is shaped by gender roles and the construction of masculinity. Other types of structural relationships determine <i>garimpeiros</i>’ relationships to health and to illness, including poor access to health services, repression of the camps by the French armed forces, threats of expulsion, and other administrative difficulties.”</p>
<p>I am missing some references on masculinity in a mining setting which is a topic that has been described in multiple settings (e.g. Cuvelier 2014; Hendriks 2022).</p>	<p>Thank you for this point. These references and show similarities with our results.</p> <p>They have been added at</p> <p>P11 L19-L22</p> <p>“In the <i>garimpo</i>, gender roles determine the functions allocated to each person. Mining activities are associated with a specific construction of masculinity. This has been described in multiple settings (39, 40, 41, 42) Masculinity is valorised through a specific relationship combining risk, alcohol and sexuality”.</p>
<p>I agree with comment 4 raised by reviewer 2 in the first round. In their response, the authors identify that health care is available for those who seek it but there is a distinction to be made between the individual experience of people as they are satisfied with the care they receive and the structural lack of access to health care which is a distinction that the authors, as</p>	<p>We agree. In order to analyse the structural barriers faced by <i>garimpeiros</i> in French Guiana’s health system, we added the following sentences in the discussion section:</p>

<p>analysts, can/should acknowledge. This paper discusses late presentation. I would argue then that the actual decision to test, either a provider initiated test or a self-initiated test, is significant both from a structural and a personal point of view. In the description I would be tempted to refer to testing behaviour rather than “discovered their hiv status”.</p>	<p>P11 L37-41:</p> <p>“It seems that <i>garimpeiros</i> do have access to care when they seek it. The decision to be tested for HIV, whether it is provider initiated or self-initiated, is important from both a personal and structural point of view. Compared to mainland France, the capacity of the health system in French Guiana is limited. Internal territorial disparities, discrimination, material and legal issues all contribute to build structural barriers to prevention and healthcare access (52).”</p> <p>In the section ‘Circumstances of HIV diagnosis’ we changed the word ‘discovered’ to indicate a more “passive” form of testing behaviour as follow:</p> <p>P10 L7: “ Three different circumstances for HIV diagnosis were identified in our study patients:”</p> <p>P11 L3: “Rosa and Aline received their HIV positive result during prenatal care.”</p> <p>We kept: P10-L11 “The three male <i>garimpeiros</i> discovered they were HIV positive because long-term symptoms led them to be hospitalized”</p>
<p><b>Reviewers’ comments – Reviewer 2</b></p>	<p><b>Authors’ responses</b></p>
<p>Thanks to the authors for revising the manuscript. It is significantly improved that I believe will make a meaningful contribution to our knowledge of health among this particularly vulnerable population. I have several minor comments below.</p>	<p>Thank you for your positive feedback.</p> <p>The lines indicated correspond to the lines of the “main document”</p>
<p>1. There are some English grammar errors throughout the manuscript that the authors may need to pay attention to before final submission. For example:</p> <p>a. Page 4 of 102, line 33-35:</p> <p>the sentence “Populations here are ... since 2019” is not grammatically right.</p> <p>b. Page 5 of 102, line 3-4:</p> <p>the sentence “these campaigns ... this activity” is not grammatically right.</p>	<p>The text has been thoroughly proofread and copyedited by a professional copyeditor. Please note that UK spelling has been used.</p> <p>With regard to the two examples made, we changed the text as follows:</p> <p>a. P3 L34-35 “Populations here are vulnerable to health problems and are marginalised from healthcare services (19,20). HIV treatment has only been available in Oiapoque since 2019.”</p>

	b. P4 L5-6: "These campaigns accentuate the temporary and improvised nature of garimpos."
2. The authors do not have to address this in the manuscript, but regarding sharing back results to participants, I am curious what the authors had originally planned to do and how they might have adjusted the plan due to the interruption of COVID.	We had initially planned for the interviewer to return to the border area to present these results to medical personnel and to the respondents. The objective was to invite each respondent to an informal <b>private</b> meeting to share and to discuss the results of this study in the premises of the DAAC association. The inability to travel and cross the border between French Guiana and Brazil <b>because of the COVID-19 pandemic</b> made this impossible. We adapted by sending a memorandum containing the results of this work to the peer workers, and through telephone exchanges. We still plan to <b>physically</b> present our results. We are <b>also</b> currently developing a new research project and hope to return to the region in January 2023.
3. Page 6 of 102: Both the first paragraph on this page and the Ethics paragraph repetitively presented ethical approvals.	P5 L27  We decided to combine these two sections in the ethics section
4. Page 9 of 102, line 3: Sizihno's age is still disclosed. Need to take this out.	P8 L1  Please excuse this mistake. Sizinho's age has been removed.
5. Page 12 of 102: normally the paragraph of "study limitation" should appear right before the Conclusion.	We moved this section before the conclusion P12 L36

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Bedert, Maarten
<b>REVIEW RETURNED</b>	21-Mar-2022

<b>GENERAL COMMENTS</b>	I thank the authors of this manuscript for the revisions they have done so far. As is, the manuscript is clearly written, with a clear problem statement, a good presentation of the results and a relevant discussion. I would therefore propose this manuscript to be accepted. One minor point that the authors might consider is mentioning the following:
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	<p>- In the section "having a functional body", what the authors discuss is health seeking behavior. Given that the aim of the text is identifying reasons for late diagnosis, health seeking behavior is important and this might be mentioned more explicitly. Also, given the fact that BM Open is a medical journal, it might help the reader to follow the results. But this is a minor suggestion and does not affect the proposed outcome.</p>
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### VERSION 2 – AUTHOR RESPONSE

<b>Reviewers' comments – Reviewer 1</b>	<b>Authors' responses</b>
<p>I thank the authors of this manuscript for the revisions they have done so far. As is, the manuscript is clearly written, with a clear problem statement, a good presentation of the results and a relevant discussion. I would therefore propose this manuscript to be accepted. One minor point that the authors might consider is mentioning the following:</p>	<p>Thank you for your strong endorsement of our work in this article. Your comments helped to greatly improve it.</p>
<p>- In the section "having a functional body", what the authors discuss is health seeking behaviour. Given that the aim of the text is identifying reasons for late diagnosis, health seeking behaviour is important and this might be mentioned more explicitly. Also, given the fact that BM Open is a medical journal, it might help the reader to follow the results. But this is a minor suggestion and does not affect the proposed outcome.</p>	<p>Thank you for this point.</p> <p>We changed the last sentence of the “having a functional body” to</p> <p>P9 L33:</p> <p>“Social backgrounds and working conditions influence goldminer’s health seeking behaviours. Other types of structural relationships also affect <i>garimpeiros</i>’ relationships to health and to illness, including poor access to health services, repression of the camps by the French armed forces, threats of expulsion, and other administrative difficulties.”</p>