

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Assessing knowledge, attitudes and belief toward HPV vaccination of parents with children aged 9-14 years in rural communities of Northwest Cameroon: a qualitative study
<b>AUTHORS</b>	Elit, Lorraine; Ngalla, Calvin; Afugchwi, Glen; Tum, Eric; Domgue, Joel; Nouvet, Elysée

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Marc Bardou Centre Hospitalier Universitaire de Dijon, CIC-P INSERM 1432
<b>REVIEW RETURNED</b>	03-Oct-2022

<b>GENERAL COMMENTS</b>	<p>This is an article that qualitatively assessed the barriers to HPV vaccination in a rural population in Cameroon.</p> <p>The key data are that knowledge of this vaccine is very low and that traditional communication media, press, telephone campaigns, would structurally have little chance of being successful</p> <p>In the introduction, the authors do not mention that the low vaccination coverage could be partly explained by supply problems (availability or out-of-pocket expenses). They state that little is known about parents' perceptions of HPV vaccination in Cameroon, particularly in a rural population, and that it would be interesting to explain why this population is of particular interest to them.</p> <p>Of the 45 parents included, 10 fathers, 35 mothers, were any of them in a relationship?</p> <p>The authors say that the parents included met all the inclusion criteria, but these were not clearly specified.</p> <p>20% is a fifth, not a quarter.</p> <p>It seems to me that the study gives a lot of space, perhaps too much, to general considerations about vaccination. As I sometimes get the impression that it assesses decision-making mechanisms in a more general context than specifically related to HPV vaccination</p> <p>I am sometimes surprised by the wording of some statements, for example (page 7) when the authors write "some parents..." and state that it is 66%. It would be more accurate to say "the majority" or "two-thirds".</p> <p>Or page 9 "Many parents, 22%...", which again corresponds to 2 fathers and 6 mothers, the minority</p>
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	<p>It is better not to use percentages with small numbers. For example, instead of saying "20% of fathers and 3% of mothers", it is more accurate to say "Two of the 10 fathers and only one of the 35 mothers...".</p> <p>As the authors point out in their discussion, most of the information provided by this study has already been provided elsewhere, and it would undoubtedly be useful to better highlight what is original in this work, in this context.</p> <p>Some of the data, such as the low circulation of the press, written or audiovisual, or the limited use of mobile phones was, or should have been, known before starting the qualitative investigation.</p> <p>In conclusion, the results of this study should be better put into perspective of what is already known and explain how they will help HPV vaccination in Cameroon. Beware of the presentation with percentages which gives the impression of a biased presentation of the results.</p>
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<b>REVIEWER</b>	Jasjit Singh Children's Hospital of Orange County, Pediatric Infectious Diseases
<b>REVIEW RETURNED</b>	06-Oct-2022

<b>GENERAL COMMENTS</b>	<p>In this study, the researchers sought to assess the knowledge and attitudes of of parents of girls in Cameroon regarding HPV vaccination using semi-structured interviews. Data analysis was performed using the thematic analysis approach. This work is important due to low HPV vaccine uptake (5%), and the unique local issues of political instability and cultural beliefs. The data is presented clearly and the paper is well written.</p> <p>In addition to the data on knowledge and beliefs, I was struck by the author's observation of lack of vaccination documentation being available to the parents. This is not addressed further in the discussion, and is important for vaccine advocacy and the prevention of vaccine preventable disease in general. I think the paper would be strengthened by addressing this gap in addition to the communication and education pieces that are mentioned. The progress in HPV vaccination in this region will be interesting to follow.</p>
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### VERSION 1 – AUTHOR RESPONSE

**Reviewer 1**

1. "Authors do not mention that the low vaccination coverage could be explained by supply problems (availability or out-of-pocket expenses)"

Edit Line 69-72: As of 2022, the Cameroon NIP made the HPV vaccine available free of charge for girls 9yo free. Given this context, several factors may contribute to low uptake: lack of knowledge of health care providers and the general population [5,6], low acceptance of this vaccine among parents and adolescents [7], and local supply problems or out of pocket expenses.

Edit Line 74-75: Little is known about parental perceptions about HPV vaccination in Cameroon in general and specifically in the rural setting.

2. "Of the 45 parents, 10 fathers and 35 mothers were any of them in relation?" The answer is no. We have clarified this in the manuscript

Edited Line 141-142: there was relationship between interviewees.

3. Inclusion criteria were not listed.

We referenced the inclusion criteria in the published study protocol – reference [10] Line 87. We have now explicitly stated these in the edited version lines 89-93: To be included the individual must be a parent of a daughter aged 9 to 14 years living in Mbingo, Njinikom and Fundong health areas. Individuals were excluded if they are a health worker or working in any health institution, unwillingness to provide consent to participate, or inability to converse in the language of the interviewer (English or Pidgin English).

4. “20% is a fifth not a quarter”

The reviewer is correct. In keeping with other comments by this reviewer concerning percent versus actual numbers, we changed line 174 to read “10 parents”.

5. The manuscript gives a lot of space to general considerations about vaccination rather than specifically about the HPV vaccination.

Since few of the parents knew about the HPV vaccination prior to the consenting process, we needed to start where the parents were at to understand impressions about vaccination in general and then focus on HPV vaccination specifically. We have tried to represent these findings in a balanced fashion.

6. The authors write “some parents”.. and state 66%.

We changed Line 201 to read: Two-thirds of parents

7. On page 9 “Many parents, 22%...”

We change Line 266 to read: Some

8. “It is better not to use percentages with small numbers: 20% of fathers and 3% of mothers”

We changed line 243 to read: Two of ten fathers and one of thirty-five mothers

In keeping with this concern, changes were made to Lines 169,172,285,339,267,268.

We did not amend Lines 284-299 as lists were presented and the percent gives an indication of the relative frequency with which items were mentioned.

9. “It would undoubtedly be useful to better highlight what is original in this work.”

We feel that since this study is the first of its kind in Cameroon, we need to first highlight the findings whether they are similar or not to other studies from Africa. It puts the Cameroon findings into context to other neighbouring countries. Next we highlight those finding that are unique (or original) to Cameroon and this particular region of Cameroon.

10. “Some of the data such as the low circulation of the press, written or audiovisual or the limited use of mobile phones was or should have been known before starting the qualitative investigation.”

Firstly, what is a regional reality and use of evidence based educational strategies in the literature are two different issues. We highlight this by uncovering the dearth of use of newspaper or radio access and messaging. This is an actionable finding of this study. It has also been a very surprising finding to those in regional and national Cameroon health care leadership and research when this work has been presented.

Secondly, our manuscript does not indicate a limited use of mobile phones. Quite the contrary Lines 323-325, indicate that mobile phones are easily available and may be an opportunity for use as a means for education.

Reviewer 2

1. Lack of vaccination documentation is not addressed further in the discussion and is important for vaccine advocacy.

Line 326-330 have been added: Other actionable items from this work include the importance of engaging community leaders in the implementation of new programs like HPV vaccination. It is importance to educate 9-14yo girls both for themselves and as a conduit of information for their families. Written educational pamphlets and individual specific vaccine documentation would help reinforce messages.

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Marc Bardou Centre Hospitalier Universitaire de Dijon, CIC-P INSERM 1432
<b>REVIEW RETURNED</b>	25-Oct-2022
<b>GENERAL COMMENTS</b>	The authors answered my questions satisfactorily, although I think the discussion could have better highlighted the originality of the work.