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Knowledge and Perceptions of Parents of Children Targeted for Cervical Cancer Immunization in Burkina Faso : The Case of the Manga, Kampti and Koupela Health Districts, August 2025

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Abstract

The vaccination is a fundamental pillar of disease prevention. As part of strengthening its Expanded Program on Immunization (EPI), Burkina Faso recently introduced two new vaccines in 27 pilot districts : the malaria vaccine (VAP) and the human papilloma virus (HPV) vaccine. Despite this progress, vaccination coverage remains below national targets in several districts. Based on lessons learned from the introduction of new vaccines in other African countries, we conducted an assessment of the challenges related to the acceptability and availability of these vaccines in three selected districts (Manga, Kampti, and Koupela). Mixed-methods study, combining qualitative and quantitative approaches, was conducted in three health districts. The qualitative component explored the knowledge, perceptions, and attitudes of parents of target children regarding vaccination against malaria and cervical cancer. Data were collected using Kobo Collect and analyzed with NVivo. Some participants (13/15) had their children vaccinated against HPV, while two parents had children who were not vaccinated. Furthermore, most parents mentioned reluctance towards this vaccine within their communities; hesitation linked to rumors, lack of information, and sociocultural perceptions. In conclusion, the Improving vaccine acceptability and availability requires strengthening community communication, improving the quality of reception, and supplying facilities with vaccines and inputs according to their needs.

Keywords *: Burkina, Human Papillomavirus, Malaria Vaccine, Vaccination, Vaccine Acceptability.*

Introduction

Vaccination is one of the most effective and cost-efficient health interventions for the prevention and control of diseases [1]. Over the past five decades, it has helped reduce infant mortality by 40% globally and by more than 50% in Africa [2]. These successes have allowed the World Health Assembly to recommend the introduction of new vaccines into national immunization programs to better address public health challenges [3].

Globally, more than 116 low- and middle-income countries have integrated new vaccines into their national programs, supported by partners [4]. And in Africa, more than 40 countries have strengthened their vaccination strategies through the introduction of innovative vaccines over the last decade [5].

Burkina Faso is among the countries that have recently integrated at least two new

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vaccines into its routine immunization program: these are the vaccines against malaria in February 2024 [6] and the vaccine against cervical cancer in April 2022 [7].

The introduction of the cervical cancer vaccine aims to reduce morbidity and mortality from this disease in the country [8], complementing other control measures such as screening and treatment of detected cases [9]. In Burkina Faso, more than 7,740 cases of cancer were recorded in women in 2020. Cervical cancer alone accounted for 14.6% of all cancer cases in women [10].

To implement this vaccination program, the country received grants from Gavi for the procurement of cervical cancer vaccines and supplies [8]. To achieve the target of at least 90% vaccination coverage in the targeted districts, the country implemented key strategies including school and community-based vaccination, as well as increased awareness campaigns on vaccination and the fight against cervical cancer [11]. All of these support measures contributed to ensuring the effectiveness of the vaccination program in the targeted districts.

The implementation of cervical cancer vaccination within the immunization program aims to help reduce morbidity and mortality related to this disease in Burkina Faso [8]. But more than a year after the introduction of this vaccine, evaluations reveal low demand and challenges in achieving expected vaccination coverage both in Burkina Faso and in some other African countries [7]. These poor results are partly explained by challenges such as infodemics about vaccination, problems with vaccine availability and access to vaccination, as well as a lack of information about the vaccine and the targeted disease [12].

In order to identify the root causes of these challenges and propose corrective measures, we conducted an evaluation of the acceptability of the cervical cancer vaccine among parents of children targeted by this vaccine through a qualitative study in 3 districts of Burkina Faso during the period from May 8 to July 6, 2026.

Methodology

Types of Study

We conducted a qualitative study on the knowledge and opinions of parents of children targeted by the cervical cancer vaccine in the districts concerned.

Study Population

Parents of children targeted for vaccination against cervical cancer, residing in the study districts (Kampti, Manga, Koupela).

Inclusion Criteria

1. Be a parent or guardian of a girl between the âges of 9 and 11,
2. Have resided in the district for at least one year,
3. Be willing to participate in the interview.

Sampling/Sample

1. **Districts** : Random selection of 3 districts from among the 27 participating districts that provide malaria and cervical cancer vaccination.
2. **Health Centers**: Random selection of 3 health centers per district, for a total of 10 health centers.
3. **Participants** : Snowball sampling of 2 parents of target children for cervical cancer vaccination at each health center, for a total of 20 expected parents.

Techniques, Data Collection and Analysis

Techniques

Semi-structured interviews with parents to identify their perceptions of vaccines, as well as potential barriers to their acceptance and adoption.

Data Collection

The interviews will be conducted using semi-structured interview guides, developed

specifically for this research following a comprehensive review of the literature on vaccine acceptability.

Audio recordings are systematically integrated into the data to provide a complete perspective. The data were then analyzed using thematic analysis with NVivo software.

Data Processing and Analysis

The audio recordings were transcribed in full. They were then analyzed using the Braun and Clarke thematic analysis method. This approach was carried out using NVivo software, following these steps:

1. **Familiarization with the Data** : rereading the transcripts several times to become familiar with the content of the verbatim transrcripts.
2. **Generation of Initial Codes** : identifying significant text segments in the transrcripts. Each important segment was assigned a descriptive code.
3. **Thematic Search** : identifying potential themes that reflect important ideas in the data. Similar codes were grouped under broader themes, and relationships between these themes were explored.
4. **Thematic Review** : the identified themes were then reviewed to verify their relevance and consistency with the original data.

Study Framework

The data was collected in Burkina Faso, a West African country with an area of approximately 274,200 km² [13]. The country's total population is estimated at 23.5 millions inhabitants in 2024 [14]. Administratively, the country is divided into 13 regions spread across 45 provinces [13]. In terms of healthcare, the health system is subdivided into 13 regional directorates, corresponding to the 13 administrative regions, and 70 health districts [15]. The cervical cancer vaccine was introduced in Burkina Faso in April 2022 [11]. This introduction covered 27 pilot districts. Of these 27 districts, 3 were selected for the study : the Manga Health District (in the Centre-South Region), the Koupela Health District (Centre-East Region), and the Kampti Health District (South-West Region).

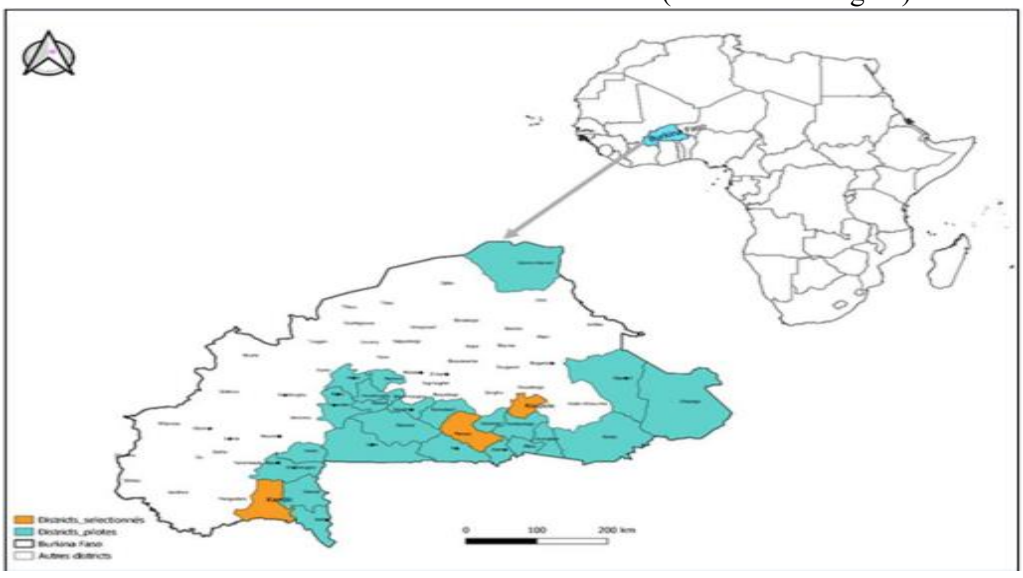

Figure 1. Map of Pilot Districts Targeted for the Introduction of New Vaccines

Comments

The map shows the districts implementing malaria and cervical cancer vaccination programs in Burkina Faso. Three districts from different regions were selected to assess the perceptions of parents of targeted children regarding cervical cancer vaccination (Figure 1).

Results

Socio-demographic Characteristics of HPV Target Participants

Table 1. Socio-demographic Characteristics of HPV Target Participants

Code	Age range	Gender	Education level	Profession
Part_HPV1	30-39 year	Female	Secondary	Household
Part_HPV2	30-39 year	Female	Secondary	Household
Part_HPV3	30-39 year	Female	Other	Household
Part_HPV4	30-39 year	Female	Primary	Household
Part_HPV5	30-39 year	Female	Secondary	Household
Part_HPV6	40-49 year	Female	Primary	Household
Part_HPV7	40-49 year	Female	Other	Household
Part_HPV8	30-39 year	Male	University	Teacher
Part_HPV9	30-39 year	Female	Other	Household
Part_HPV10	30-39 year	Female	Secondary	Teacher
Part_HPV11	40-49 year	Male	Secondary	Other
Part_HPV12	40-49 year	Female	Primary	Household
Part_HPV13	20-29 year	Female	Other	Trader
Part_HPV14	30-39 year	Female	Secondary	Other
Part_HPV15	30-39 year	Male	Other	Other

Comments

The majority are aged 30-39 (10) and female (11). Ten participants have at least a primary school education, and the majority (8/15) are employed in household services (table 1).

Perceptions of the Impact of Cervical Cancer in the Community

1. All participants in the HPV target group (15/15) reported never having known a case in their community. One participant from DS Kampti stated : “No, I have never come across a case of cervical cancer. Neither in my family nor among my acquaintances.” [Part_HPV1].
2. Another participant from Koupela stated : “No, there has been no cervical cancer in my family. I also don’t know anyone who has had this disease.” [Part_HPV12].

Knowledge of Target Groups and Vaccination Schedule

1. Nearly half (8/14) of respondents are familiar with the target groups and vaccination schedule for cervical cancer. Participant Part_HPV10 explains : “It’s the 9-year-old girls who are vaccinated against this disease.”
2. Another participant says : “It’s HPV… the target group is girls, girls aged 9 to 14.” [Part_HPV3]
3. A portion of the respondents (6/14) are unaware of the target groups and vaccination schedule. One DS Manga resident said : “I’ve never heard of these vaccines,” [Part_HPV13].
4. Others, however, were aware of the vaccine but did not know the target group. This was the case for “I think it’s the vaccine called HPV, right ? I think all children are eligible from 59 months onwards,” [Part_HPV15].

Immunization Status and Opinions on the Cervical Cancer Vaccine

1. The majority of respondents (13/15) had their children vaccinated. Their explanations were linked to the effect of awareness campaigns : “I had her vaccinated because through awareness campaigns and the images we see on television, we understand that cervical cancer is not a good disease.” [Part_HPV4].
2. The school's involvement in the vaccination strategy encouraged some parents to vaccinate their children : “It was the teacher himself who called me and explained the disease to me, what it can do, and now I've given permission to have my daughter vaccinated.” [Part_HPV5]
3. Some did not vaccinate their children due to a lack of information : "My child didn't get the vaccine because we hadn't learned about the vaccination campaign against this disease" [Part_HPV13]

Reasons for Acceptability and Reluctance Regarding Cervical Cancer Vaccination

The main reasons for acceptability cited by parents include :

1. The effect of health worker awareness campaigns encourages some parents to get their children vaccinated, according to 4 out of 7 respondents. One stated : "With the health worker awareness campaigns, they understood the need to let their children get vaccinated" [Part_HPV3].
2. Trust in the vaccine as a means of cancer prevention : "Those who accept this vaccine want to protect themselves and their children against diseases. That's the right reason" [Part_HPV10].

However, many parents of children at high risk for HPV revealed significant reluctance for the following reasons :

1. **Fear of family planning through the HPV vaccine**, based on rumors, was highlighted by many parents (7/15) as the main reason for reluctance towards the HPV vaccine. Participant Part_HPV6 explained : “Others are hesitant. They wonder why girls and not boys ? That’s their concern because they suspect contraception.” Participant Part_HPV5 added, “And they really think about contraception since only girls are vaccinated.”
2. **Lack of trust and consent from the parents of the target population**. Participant Part_HPV2 explained : “It’s the family that decides which women and girls should be vaccinated. If the family doesn’t agree, the girl cannot be vaccinated.”
3. **Lack of knowledge about cancer** also explains the irrelevance of this vaccine for some parents ; one stated : “It’s difficult now to bring their children to be vaccinated against a disease they don’t know about” [Part_HPV1].

Discussion

The aim of this study was to assess the knowledge and opinions of parents of children targeted for the cervical cancer vaccine and to identify the main challenges to vaccine acceptance and propose corrective measures. Our analysis reveals mixed results, ranging from some support to some reluctance.

Some parents are in favor of the HPV vaccine and have had their children vaccinated. They justify their support by citing increased awareness and knowledge of the disease. Guenon and colleagues obtained similar results in Cameroon [16]. The school's involvement in the vaccination strategy also encourages some parents to get their children vaccinated. A study on Réunion Island reached the same conclusions [17].

Hesitancy towards HPV vaccines in the community was mentioned by most of the parents interviewed. The main reasons for this hesitancy were fears about family planning through the HPV vaccine. These results are

consistent with those obtained in Tanzania, which indicated rumors about the risks of infertility associated with the vaccine as a cause of hesitancy [18]. Fear of infertility is also one of the main reasons for reluctance towards this vaccine in The Gambia [19].

A lack of knowledge about cervical cancer also contributes to reluctance towards vaccination against this disease: "It's difficult now to bring their children to be vaccinated against a disease they don't know about" [Part_HPV1]. But these conclusions differ from those put forward by Fisher in England, who reveals that reluctance towards this vaccine is partly linked to some parents not perceiving the necessity of vaccination, even though they are aware of the disease [20].

Conclusion

The introduction of a cervical cancer vaccine in Burkina Faso presents an opportunity to significantly reduce the morbidity and mortality associated with this disease.

Despite the efforts made by the Ministry of Health and its partners to support vaccination programs through community awareness campaigns and improvements in the quality of vaccination services, including training and supervision of providers, hesitancy towards vaccination persists.

The main reasons for this hesitancy are fears related to family planning and a lack of knowledge about cervical cancer among some community members. To address this, we recommend that the Ministry of Health and its partners strengthen awareness campaigns about cervical cancer through the effective involvement of local authorities and the media, as well as improve the quality of vaccination services.

Limitations

We used a qualitative method, and the sample is not representative of the population, but it does highlight some perceptions. Therefore, comparing our results regarding the acceptability of and reluctance towards the HPV vaccine with other studies should be done with caution.

Author contributions

S. F. developed the research strategy, coordinated data collection, and wrote the manuscript. KS and all authors reviewed the manuscript. All authors read and approved the final version of the manuscript.

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Ethical Approval

for the collection and analysis of data, we obtained approval from the Health Research Ethics Committee (CERS) of Burkina Faso under number 2025-04-134. We also obtained authorization from the relevant regional directorates as well as informed consent from the participants.

Data Availability

Further inquiries about this article can be directed to the corresponding author.

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Conflicts of Interest

The authors declare no conflicts of interest.

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