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Original Article

Uptake of Human Papiloma Virus (HPV) Vaccine in Kenya: Barriers and Facilitators - A Scoping Review

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ABSTRACT

Cervical cancer is a leading cause of cancer-related deaths among women in Kenya, with human papillomavirus (HPV) as the primary causative agent. Despite the World Health Organisation (WHO) recommendations for HPV vaccination, uptake remains suboptimal. By 2020, only 33% of eligible adolescent girls had received the first dose, and just 16% had completed the second dose. Given the crucial role of HPV vaccination in cervical cancer prevention, understanding the factors influencing vaccine uptake is essential. This scoping review assessed HPV vaccine uptake among adolescent girls in Kenya, identified key barriers, and explored facilitators to improve coverage. A systematic search was conducted in MEDLINE (PubMed), CINAHL, and Google Scholar, focusing on studies published between 2006 and 2025. A total of 12 eligible studies were included, comprising six qualitative, five quantitative, and one mixed-method study. The findings indicate that the average first-dose uptake was 52%, but subsequent dose completion rates were significantly lower, highlighting challenges in ensuring full vaccine coverage. Barriers to uptake included widespread misinformation, vaccine hesitancy, financial constraints, long distances to healthcare facilities, negative provider attitudes, and socio-cultural opposition, including religious concerns and male guardian hesitancy. Additionally, the COVID-19 pandemic disrupted HPV vaccination programs, further reducing access. Facilitators of vaccine uptake included school-based vaccination programs, community engagement initiatives, targeted public education campaigns, and retraining of healthcare providers to improve vaccine advocacy. Integration of HPV vaccination with routine immunisation programs and youth-friendly reproductive health services was also identified as a strategy to enhance accessibility and adherence. Improving HPV vaccine uptake in Kenya requires a multi-pronged approach, including strengthening healthcare infrastructure, addressing vaccine safety concerns through transparent communication, and actively engaging key stakeholders, including parents, teachers, and community leaders. Policy adjustments, such as adopting a single-dose regimen where feasible, may further enhance vaccine accessibility and adherence. A comprehensive, collaborative strategy is essential to increasing HPV vaccine coverage and reducing the burden of cervical cancer in Kenya.

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INTRODUCTION

Cervical cancer is the second most common cancer among women globally and the leading cause of cancer-related deaths in Kenya, with an estimated 5,845 new cases and 3,591 deaths annually (Lubeya et al., 2022). Human papillomavirus (HPV) is responsible for nearly all cervical cancer cases, with high-risk strains such as HPV 16 and 18 accounting for about 70% of infections (Globocan, 2020). The World Health Organization (WHO) recommends HPV vaccination for adolescent girls aged 9–14 years as a primary prevention strategy, alongside secondary and tertiary interventions such as screening, treatment, and palliative care (World Health Organization (WHO), 2020). Despite these efforts, global HPV vaccine uptake remains uneven, with high-income countries achieving approximately 70% coverage, while rates in developing nations, including Kenya, are significantly lower (Karanja-Chege, 2022)

Kenya introduced the HPV vaccine into its routine immunisation schedule in 2019, targeting 10-year-old girls. However, uptake remains below WHO recommendations, with only 33% receiving the first dose and 16% completing the second dose by 2020 (Karanja-Chege, 2022). Various challenges hinder uptake, including misinformation, healthcare system barriers, vaccine hesitancy, and socio-cultural opposition (Dilley et al., 2018). The COVID-19 pandemic further disrupted vaccination efforts, limiting access and follow-up for many eligible girls (Ministry of Health (MOH), Kenya, 2018)

Successful HPV vaccination programs in other sub-Saharan African countries, such as Rwanda, Uganda, and Tanzania, demonstrate that high coverage is achievable through school-based and community-driven approaches (Arbyn M., et al., 2018). However, in Kenya, hard-to-reach populations—including out-of-school girls and those in informal settlements—remain particularly vulnerable to low vaccine uptake (Canfel, 2020). Without targeted interventions, these groups may miss out on the benefits of HPV vaccination, further exacerbating cervical cancer disparities.

Given the high burden of cervical cancer and suboptimal HPV vaccine coverage in Kenya, a scoping review aims to map the existing evidence on the uptake of cervical cancer vaccination among adolescent girls (9-19 years) in Kenya, identify barriers and facilitators of HPV vaccine uptake in Kenya. Addressing these challenges is critical for reducing cervical cancer incidence and mortality in Kenya.

Objectives

This study aimed to determine the uptake of the Human Papillomavirus (HPV) vaccine among adolescent girls aged 9 to 19 years in Kenya. Additionally, it examined the barriers hindering

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HPV vaccine uptake within this population and evaluated the key facilitators that promote vaccination uptake.

MATERIALS AND METHODS

This scoping review follows the PRISMA-ScR guidelines to ensure a systematic and transparent reporting process.

Eligibility Criteria

Participants

This study involved further examination of research/studies on adolescent girls aged 9 to 19 years published between 2006 and 2025 in Kenya.

Concept

This study included studies that used at least one of the implementation strategies defined by the refined compilation of implementation strategies from the Expert Recommendations for Implementing Change (ERIC) project (Powell et al., 2015, as cited in Lubeya et al., 2022) to increase the uptake of HPV vaccination.

Context

This review considered all studies done in healthcare settings, schools, and community-based programs in Kenya aimed at improving the uptake of the HPV vaccine among adolescent girls.

Information Sources

The scoping review took into account all qualitative studies and every design of quantitative study except study protocols or actual systematic reviews/meta-analyses. This specifically includes analytical observational studies, descriptive observational research designs, and experimental and quasi-experimental study designs. This study was limited to publications reported in the English language.

Search Strategy

To explore literature on the subject, a preliminary search of MEDLINE (PubMed), Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Google Scholar was conducted. The entire search technique was developed using the keywords found in the titles and abstracts of pertinent publications as well as the index terms used to describe the articles. The keywords in the search were HPV Vaccines for intervention, adolescents, teenage girls or young adults for the population, and uptake, efficacy, effectiveness, safety, hesitancy, policies, and strategies for outcomes. The use of the MeSH search strategy was employed. The goal of the search approach was to find published studies. Every recognised keyword and index phrase in the search strategy was modified for every database and information source that was used. A search was conducted for more research on the reference list of the evidence sources that were provided. Additionally, the databases were searched for related articles.

Studies that have been published in languages other than English were not included because the researchers are limited to using English. Since the World Health Organization (WHO) authorised the HPV vaccine for use in pre-pubertal girls in 2006, papers published up until 2025 were included in the search.

Selection Process

Two reviewers screened titles and abstracts for assessment against the inclusion criteria for the review. Potentially relevant studies were retrieved in full, and their citation details. Two reviewers assessed the full text of selected citations in detail against the inclusion criteria. The scoping review recorded and reported reasons for excluding full-text studies that do not meet the inclusion criteria. Data were extracted and charted onto a standardised form, including study design, population, intervention details, and outcomes.

The search commenced on March 1, 2025. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) was used to present the search results in a report that was given the name "scoping review" (Tricco et al., 2018)

Data Synthesis

A narrative synthesis was conducted to summarise the findings, focusing on the uptake of the HPV

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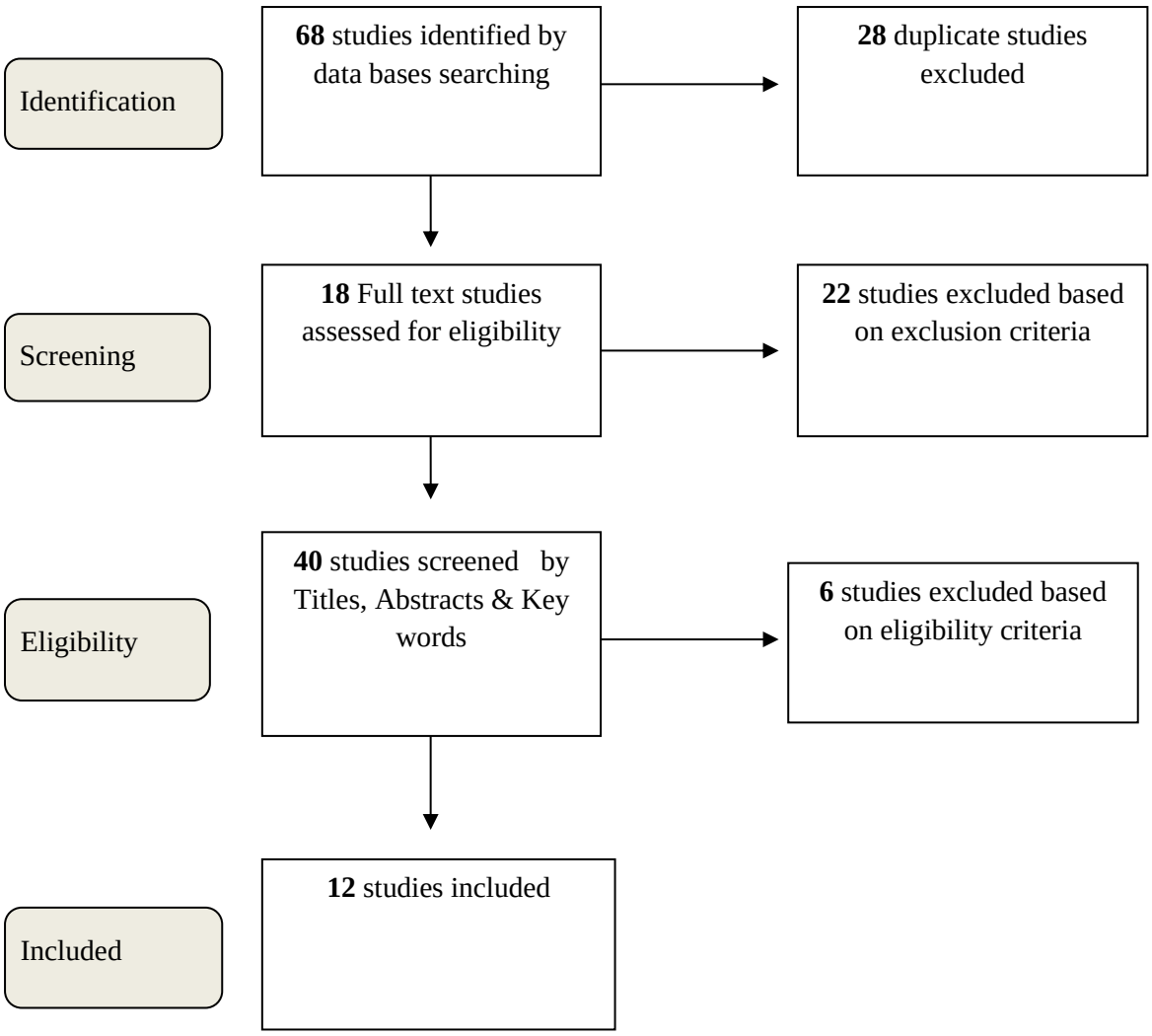
vaccine, factors influencing or associated and strategies employed to upscale acceptance of the vaccine. Themes were identified and categorised based on review objectives. Two separate reviewers used a data extraction chart they had created to extract data from publications that were part of the scoping review. The first author, the year the study was conducted, the year it was published, the nation, the article's title, its type, the study design (if relevant), the sample size, the implementation strategies, the targeted stakeholders, the type of program (national versus regional program/demonstration/subpopulation), the funding source for the vaccine, HPV vaccine coverage and uptake, limitations, and strengths were among the data that were extracted. After some evidence was used as a pilot, the draft extraction chart was amended as needed.

RESULTS

Study Selection

A total of sixty-eight (68) studies were identified via database searches and grey literature. Forty studies (40) were retained following the elimination of twenty-eight (28) duplicates. Forty articles were evaluated based on titles, abst racts, and keywords, resulting in twenty-two (22) studies failing to match the established i nclusion criteria. The full texts of the remaining eighteen (18) studies were accessed and evaluated to determine if they met the eligibility requirements. Eventually, twelve (12) studies met the eligibility threshold for data extraction after excluding six (6) studies that did not meet the eligibility requirement, as shown in Figure 1 (PRISMA Flow Diagram).

Figure 1: PRISMA Flow Diagram



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Characteristics of Sources of Evidence

The Study designs included six (6) qualitative studies, five (5) quantitative studies, and one (1) mixed-method study. The quantitative studies were further classified as three (3) longitudinal and two (2) cross-sectional studies. The populations in the studies included adolescent girls aged 9–19 years, parents, healthcare providers, clergy, and community stakeholders.

The studies' established themes encompass vaccination rates against the Human Papilloma Virus (HPV). The studies also identified the following barriers to HPV vaccine uptake: vaccine hesitancy or fear; lack of knowledge or misinformation or misconceptions; logistical or health-related challenges; COVID disruptions; partner or father objections; and cultural and religious beliefs. Several factors were identified as facilitators of HPV vaccine uptake, including community engagement, public education initiatives, school-based campaigns, and the active involvement of teachers. Additionally, integrating HPV vaccination programs with other health services, particularly Youth-Friendly Sexual and Reproductive Health Services, proved beneficial. The involvement of men in vaccination efforts, continuous retooling and retraining of healthcare providers, and the reformulation of the vaccine into a single-dose regimen also contributed to increased uptake. The details of included studies are captured in Table 1 appended (Appendix 1)

Synthesis of Results

The Uptake of HPV Vaccination in Kenya

The reviewed studies indicated that the coverage of HPV vaccination among adolescent girls aged 9 to 19 years in Kenya averaged 52% for the first dose, with reported rates ranging from 31% to 94%. Uptake of the second dose was lower, with an average coverage of 40%, ranging from 16% to 64%. Only one study reported data on the third dose, documenting a coverage rate of 39%.

Barriers to HPV Vaccination in Kenya

The identified barriers to HPV vaccine uptake were predominantly misinformation, disinformation, misconceptions, and general ignorance, which were reported across all the reviewed studies. Health-related factors emerged as the second most common barrier, cited in 83.3% (n=12) of the studies. These factors included the distance to healthcare facilities and associated costs, limited or absent healthcare provider-initiated outreach activities, negative attitudes among healthcare providers, hesitancy or reservations among providers, logistical challenges such as vaccine stock-outs, and financial constraints. Concerns and fears regarding the HPV vaccine were identified as a barrier in 66.7% (n=12) of the studies. These concerns encompassed doubts about vaccine safety and efficacy, apprehensions about potential future reproductive implications, and fear of the injection process itself.

Additionally, 50% (n=12) of the studies indicated that parental or spousal reservations—particularly from male guardians or partners—posed a significant barrier to vaccine uptake. Cultural and religious misalignment with HPV vaccination was reported in 41.7% (n=12) of the studies, highlighting the influence of socio-cultural factors on vaccine acceptance. Lastly, approximately 25% (n=12) of the studies noted that the COVID-19 pandemic disrupted HPV vaccination programs. These disruptions were attributed to the loss of follow-up and the scaling down or cessation of immunisation initiatives during the pandemic period.

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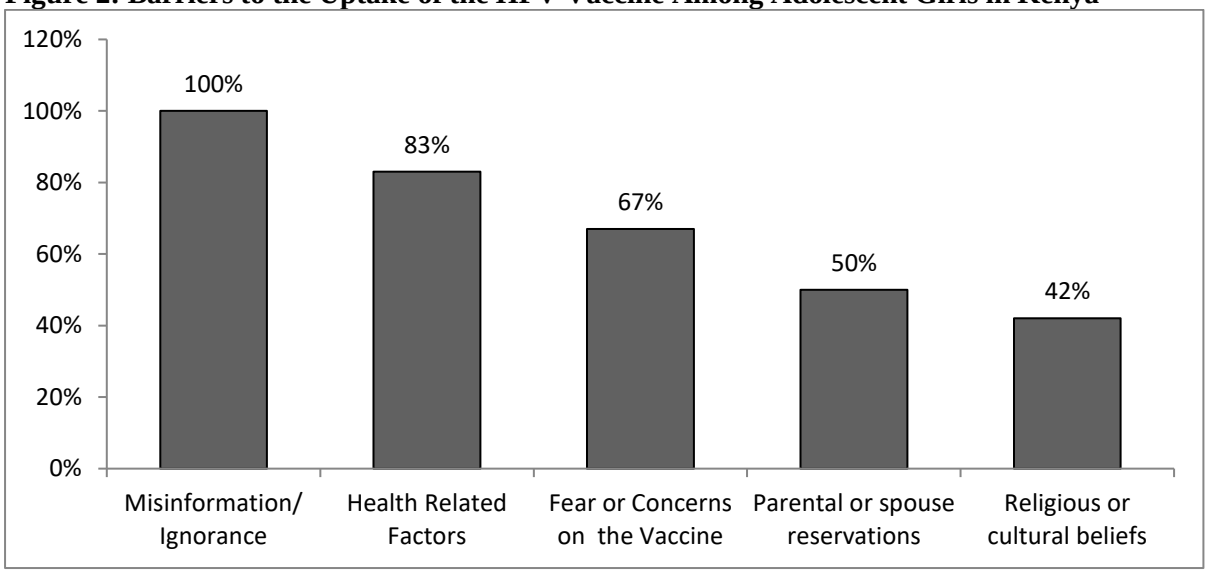
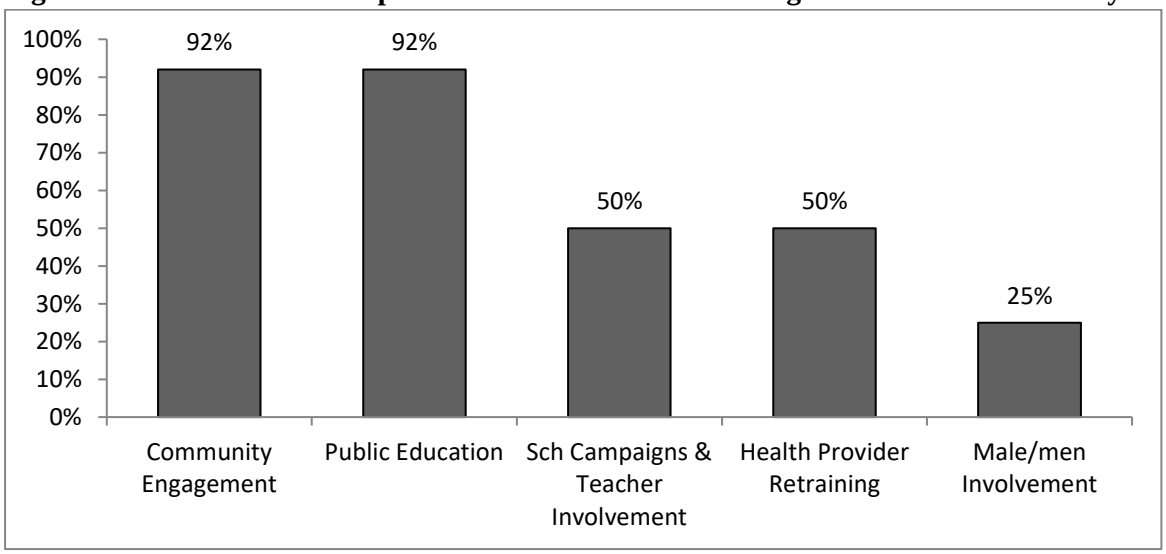
Figure 2: Barriers to the Uptake of the HPV Vaccine Among Adolescent Girls in Kenya



Facilitators to HPV Vaccination in Kenya

The two most prominent facilitators of HPV vaccine uptake identified in the studies were community engagement (91.7%, n=12) and public education (91.7%, n=12). These were followed by school-based campaigns and teacher involvement (50%, n=12), as well as healthcare provider retraining and retooling (50%, n=12). Additionally, the involvement of men and other key stakeholders was reported as a facilitator in 25% (n=12) of the studies. Aligning HPV vaccination programs with existing health services—such as youth-friendly sexual and reproductive health initiatives or routine immunisation programs—was identified as a strategy in 50% (n=12) of the studies. Lastly, one study (8%, n=12) suggested that repackaging the HPV vaccine as a single-dose regimen could enhance its acceptance and uptake.

Figure 3: Facilitators to the Uptake of the HPV Vaccine Among Adolescent Girls in Kenya



DISCUSSION

The findings indicate that HPV vaccine uptake among adolescent girls aged 9 to 19 years in Kenya remains suboptimal. While the average coverage for the first dose stands at 52%, there is considerable variability across studies, with rates ranging from 31% to 94%. The uptake of subsequent doses declines, with the second dose averaging 40% (16% – 64%), highlighting challenges in completing the vaccination

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schedule. Limited data on the third dose further suggest gaps in full vaccine coverage, as only one study reported a 39% uptake rate. These trends underscore the need for targeted interventions to improve vaccine completion rates and ensure widespread protection against HPV-related diseases (Lubeya et al., 2022; Umutesi et al., 2023).

The discussion of the findings highlights several key barriers to HPV vaccine uptake among adolescent girls in Kenya. Misinformation, disinformation, misconceptions, and general ignorance emerged as the most widespread barriers, reported across all reviewed studies. (Ministry of Health (MOH), Kenya, 2018; Mwangi et al., 2020; Zhang et al., 2023). These findings underscore the critical need for targeted awareness campaigns to address knowledge gaps and counter vaccine-related myths.

Health system-related challenges were the second most commonly cited barriers (83.3%), including long distances to healthcare facilities, financial constraints, limited provider-initiated outreach, negative healthcare provider attitudes, vaccine hesitancy among providers, logistical issues such as stock-outs, and inadequate funding. This corresponds with several studies' findings, which underscore the significance of health-related factors in the success of any health initiative, including HPV vaccine among adolescents (Topazian et al., 2019; World Health Organization (WHO), 2020; Zhang et al., 2023). These challenges suggest that strengthening healthcare infrastructure and improving vaccine accessibility are crucial for increasing uptake.

Concerns about vaccine safety, efficacy, potential reproductive consequences, and fear of injections were identified as additional barriers in 66.7% of studies (Ochomo et al., 2024). This indicates a need for confidence-building measures, such as transparent communication and healthcare provider advocacy, to reassure communities about the vaccine's benefits and safety. Parental and spousal hesitancy, particularly from male guardians or partners, was noted in 50% of the studies, highlighting the importance of involving family decision-makers in HPV vaccine advocacy efforts. Furthermore, cultural and religious opposition to HPV vaccination was identified in 41.7% of studies, reinforcing the need for culturally sensitive engagement strategies that align with community values.

Finally, the COVID-19 pandemic was reported to have disrupted HPV vaccination programs in 25% of studies, leading to reduced follow-up and the scaling down or suspension of immunisation efforts (Karanja-Chege, 2022; Kwena et al., 2023). This finding underscores the vulnerability of vaccination programs to global health crises and the need for resilient, adaptable healthcare strategies to sustain routine immunisations during public health emergencies. Overall, these findings suggest that a comprehensive, multi-pronged approach addressing misinformation, improving healthcare access, fostering trust in the vaccine, engaging key stakeholders, and ensuring program resilience is essential to overcoming barriers to HPV vaccine uptake in Kenya.

The findings highlight key facilitators that can enhance HPV vaccine uptake among adolescent girls in Kenya. Community engagement and public education emerged as the most effective strategies, identified in 91.7% of the studies, emphasising the role of awareness and social mobilisation in increasing vaccine acceptance (Ambali et al., 2022; Amponsah-Dacosta et al., 2022). School-based campaigns and teacher involvement, as well as healthcare provider retraining, were also significant enablers, each reported in 50% of the studies. Additionally, the involvement of men and other key stakeholders was noted in 25% of the studies, underscoring the influence of familial and community support in vaccine decision-making (Chigozie et al., 2022). Integrating HPV vaccination with existing health services, such as youth-friendly reproductive health programs and routine immunisations, was another critical strategy (50%). Lastly, one study (8%) suggested that repackaging the vaccine as a single-dose regimen could improve uptake, highlighting the need for simplified vaccination schedules to enhance accessibility and adherence (Kreimer et al., 2024). In theory, this finding

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highlights the need to focus on the Health Behaviour Models, including the Health Belief Model and the Theory of Planned Behaviour, which postulate that accepting a vaccination does not equate to completion, particularly where there are barriers, misinformation, and a lack of cues to action. Practically, the concern that is most striking is the sharp decline in completion for the subsequent doses, which indicates a dangerous lapse in the mechanisms for vaccine delivery, community follow-up, and overall engagement within the health system. It underscores the need for automated reminder systems as well as education campaigns tailored to these gaps and follow-up by healthcare workers aimed at guiding the patients through the multi-dose schedule to optimize immunization coverage. These findings may also suggest that a multifaceted approach, combining community-driven efforts, education, and health system integration, is essential to improving HPV vaccination coverage.

This scoping review captures the entirety of the subject matter under consideration; however, it has important limitations. Censoring sources not in English, along with possible grey literature, creates a language and publication bias. The lack of stated quality assessment and evaluation for the evidence within the scope of scoping review methodology limits evidence appraisal of the strength and interpretation of the robustness of included evidence. Having only two authors participate in screening and data charting may have created some level of selection and extraction bias. Moreover, the diversity within study designs, populations, and areas of geography, including and beyond Kenya, diminishes the generalizability of the findings. These aspects must be taken into account while integrating the findings into policy or program formulations.

CONCLUSION

HPV vaccine uptake among adolescent girls in Kenya remains suboptimal, with significant drop-off rates between the first and subsequent doses. The average coverage of 52% for the first dose, declining to 40% for the second dose, highlights challenges in ensuring full vaccine completion. Limited data on third-dose uptake further indicate gaps in comprehensive vaccine coverage. Addressing these gaps is critical to achieving the full protective benefits of HPV vaccination and reducing the burden of HPV-related diseases.

The study identified multiple barriers to HPV vaccine uptake, with misinformation, healthcare system constraints, safety concerns, and socio-cultural opposition emerging as the most significant. The COVID-19 pandemic further disrupted vaccination efforts, underscoring the need for resilient immunisation programs. However, several facilitators can enhance vaccine uptake, including community engagement, public education, school-based campaigns, healthcare provider retraining, and integration of HPV vaccination into existing health services. Strengthening these enablers, alongside addressing identified barriers, is essential to improving HPV vaccine acceptance and completion rates.

A comprehensive, multi-sectoral approach is necessary to enhance HPV vaccine uptake in Kenya. This includes targeted awareness campaigns, improved healthcare infrastructure, culturally sensitive community engagement, and strategic policy interventions. By addressing these critical challenges and leveraging effective facilitators, Kenya can achieve higher vaccine coverage and contribute to the global efforts in cervical cancer prevention.

Recommendations

This study therefore recommends the following:

- Strengthen Public Awareness and Education Campaigns – Implement targeted public education initiatives to address misinformation, misconceptions, and vaccine-related fears. These campaigns should involve healthcare providers, educators, community leaders, and media platforms to improve HPV vaccine knowledge and acceptance.

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- Enhance Healthcare System Capacity – Improve healthcare infrastructure by ensuring consistent vaccine availability, expanding provider-initiated outreach programs, and increasing financial support for HPV vaccination services to enhance accessibility.
- Leverage School-Based Vaccination Programs – Strengthen school-based HPV vaccination initiatives by engaging teachers as key advocates and integrating vaccine education into school health programs to improve uptake and completion rates.
- Engage Families and Communities – Develop culturally sensitive strategies to involve parents, male guardians, and other community influencers in HPV vaccine advocacy. Community-based dialogues and participatory approaches should be used to address socio-cultural and religious concerns.
- Integrate HPV Vaccination with Existing Health Services – Align HPV vaccination programs with routine immunisation schedules, youth-friendly sexual and reproductive health services, and other primary healthcare initiatives to improve vaccine accessibility and adherence.
- Address Vaccine Safety Concerns through Transparent Communication – Strengthen confidence in HPV vaccines by providing clear, evidence-based information on vaccine safety, efficacy, and long-term benefits. Healthcare providers should be trained to effectively communicate this information to the public.
- Ensure Program Resilience Against Health System Disruptions – Develop strategies to sustain HPV vaccination efforts during public health crises, such as the COVID-19 pandemic, by implementing adaptive service delivery models, such as mobile vaccination clinics and digital follow-up systems.
- Consider Policy and Programmatic Adjustments – Explore policy options such as transitioning to a single-dose HPV vaccine regimen, where evidence supports its effectiveness, to simplify vaccine administration and improve adherence.
- By implementing these recommendations, Kenya can improve HPV vaccine uptake, enhance vaccine completion rates, and strengthen its efforts in preventing HPV-related diseases, ultimately contributing to better public health outcomes.

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APPENDIX 1

Table of characteristics of studies included

Table 1

Characteristics of included studies

Author and Date	Study population	Study Setting (County)	Study design	Key findings
(Vermandere et al., 2016)	.Mothers	Eldoret	Longitudinal Cohort Study	Determinants: • Promotion efforts • Health beliefs influenced willingness but may not lead to vaccination. Barriers: • Lack of awareness among mothers hindered uptake. • Father's refusal and religious concerns reduced vaccine acceptance.
(Vermandere et al., 2014)	.Mothers	Eldoret	Longitudinal Cohort study	High Acceptance, Low Uptake: • 88.1% of mothers accepted HPV vaccination, but only 31.1% of girls received it. • 51.2% missed vaccination despite willingness. Barriers to Uptake: • Lack of information (54.6% unaware of when/where to vaccinate). • Fear of side effects among both acceptors and refusers. • Partner opposition reduced acceptance and uptake. • Logistical issues (transport costs, time constraints). Determinants of Uptake: • Awareness of the program was the strongest predictor. • Prior knowledge of cervical cancer increased the uptake. • Urban residence was linked to higher vaccination rates.
(Mabeya et al., 2018)	.Adolescents Girls(9-14yrs)	Eldoret	Longitudinal Cohort study	Vaccine Uptake: 93.8% received childhood vaccines, 63.8% got the second HPV dose, but only 39.1% completed all three doses. Key Determinants of Completion: Receiving the second dose was the strongest predictor, along with parental HPV knowledge. Barriers: Lack of awareness, logistical challenges (e.g., transport), and parental concerns about vaccine safety.
(Ochomo et al., 2024)	.Mothers .Adolescents Girls(9-14yrs)	Kisumu	Qualitative	*Barriers and Enablers of HPV Vaccine Uptake* Barriers: • Lack of Information • Myths & Misconceptions • Healthcare System Issues. • Injection Fear Enablers: • Parental Approval • Community Awareness Programs: • School-Based Vaccination
(Kaaria et al., 2024)	.Religious Leaders	Machakos	Cross sectional	Uptake Rates: • By 2021, 29% of eligible girls had received at least one dose. • Only 44% of those vaccinated completed the full regimen. Strategies to Improve Uptake: • Religious Leader Support • Community Engagement: • Addressing Misconceptions • School & Church-Based Vaccination.

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				Barriers to Uptake: • Misinformation & Myths. • Religious Hesitancy. • Limited Awareness. • Health System Barriers.
(Vermandere et al., 2015)	Teachers, .Nurses .Parents	Eldoret	Qualitative	Uptake Rates: • A related study found that only 31% of those who initially accepted vaccination followed through. Strategies to Improve Uptake: • School-Health Collaboration. • Better Communication. • Addressing Misinformation. • Community Engagement. • School-Based Vaccination. Barriers to Uptake: • Lack of Awareness. • Myths & Misconceptions. • Limited Parental Involvement. • Healthcare System Issues. • Vaccine Hesitancy.
(Umutesi et al., 2023)	.girls and young women .stakeholders involved in HPV vaccine delivery	Kiambu, Nairobi and Kisumu	Qualitative	Uptake Rates: • 2020: 33% of eligible adolescent girls and young women (AGYW) received the first dose. • 2021: First-dose uptake increased to 77%, but only 31% received the second dose. Strategies to Improve Uptake: • Community Engagement: • Stakeholder Collaboration. • Single-Dose Strategy • Public Awareness Campaigns. Barriers to Uptake: • Vaccine Hesitancy. • Provider Reluctance. • Limited Community Education. • COVID-19 Disruptions:.
(Watson-Jones et al., 2015)	.Parents .Adolescent Girls .Health Providers	Nairobi and Kajiado	Qualitative	Challenges in Measuring Uptake: • The study did not track actual vaccination rates but highlighted disparities in coverage. • Slum dwellers and pastoralist communities had lower uptake than the national average. Strategies to Improve Uptake: • Community Sensitisation: • School-Based Programs: • Mobile Clinics: • Healthcare & Government Support: • Service Integration. Barriers to Uptake: • Misinformation & Hesitancy. • Lack of Awareness:. • Cultural & Religious Barriers. • Gender Bias:. • Logistical Issues:.
(Essoh et al., 2023)	.Adolescent girls	Kitui, Kilifi	Qualitative	Uptake Rates:

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	.National and county-level immunisation officials .caregivers of children (0–23 months)	Turkana, Nairobi		• In 2020, 33% of adolescent girls received the first dose, but only 16% completed the second dose. Barriers to Uptake: • Misinformation & Myths. • Religious Opposition. • Healthcare Worker Attitudes. • COVID-19 Impact: • Logistical Challenges: • Social Media Misinformation:. Strategies to Improve Uptake: • Community Sensitization • School-Based Vaccination • Collaboration • Public Awareness Campaigns • Addressing Hesitancy.
(Masika et al., 2015)	.Teachers	Kitui	Cross sectional	Key Findings: • 90% of teachers were aware of the government-led HPV vaccination program. • 89% were willing to recommend the vaccine to their daughters or relatives. Barriers to Uptake: • Lack of Information • Poor School Accessibility. • Absenteeism on Vaccination Days. • Fear of Side Effects • Religious & Cultural Beliefs. Strategies to Improve Uptake: • Teacher Involvement. • Community Awareness Programs • Improved Healthcare Communication. • School-Based Vaccination Programs.
(Njuguna et al., 2021)	. School children (boys and girls aged 9–13 years) . Parents .Head teachers .Community leaders .Health workers	Mombasa & Tana	Qualitative	Limited Knowledge: • Children: Significant gaps in understanding HPV and its link to cervical cancer. • Adults: Health workers and community leaders were more informed, but many parents and head teachers had misconceptions, • Attitudes Toward Vaccination: • General Acceptance: • Vaccination for Boys:. • Cultural & Religious Barriers: • Safety Concerns:. *Recommendations for Improvement* • Enhanced Sensitisation: • Capacity Building:. • Integrated Strategies:. • Addressing Misinformation:.
(Kariuki et al., 2024)	.Adolescents girls(9-14 yrs)	Kiambu	Mixed	*Vaccine Uptake & Awareness* • Initiation & Completion Rates: 69.1% started the vaccine, 63.0% completed it. • Health Records: 66.9% received a vaccination card. • Information Provided: 69.1% knew the vaccine protects against cervical cancer. *Perceptions & Knowledge*

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- Positive Perception: 74.9% viewed the vaccine favorably.
- Correct Understanding: 69.3% recognised it protects.
- Misconceptions: 3.2% mistakenly thought it was a COVID-19 cure.
- Knowledge Gaps: Some were unaware that the vaccine is not just for their age group.

Factors Influencing Uptake

- Individual Factors: Higher knowledge and positive attitudes increased uptake.
- Family Influence:.
- Institutional Barriers:.

Barriers to Uptake

- Misinformation & Low Awareness.
- Cultural Beliefs.
- Healthcare Challenges.

