



HPV Vaccine Progress and Next Steps for Advocacy in Ghana

Findings from Key Informants



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Background

Ghana is home to a total of 9.44 million women aged 15 or older, all of whom are potentially at risk for cervical cancer. According to 2020 estimates, almost 3,000 cases of cervical cancer cases are identified in the population each year and approximately 1,700 women die each year due to cervical cancer¹. After breast cancer, cervical cancer is the second most common cancer among Ghanaian women.

As nearly all cases of cervical cancer are caused by human papillomavirus (HPV), HPV vaccination is one of the most effective tools for preventing HPV infection and reducing the risk of cervical cancer. Despite leading a successful pilot project in 2013², Ghana has yet to complete the last steps toward national introduction of HPV vaccination, which would be a critical milestone for cervical cancer prevention and control in Ghana³. At present, HPV vaccines are not part of the country's public health insurance scheme and are only available at selected health facilities. Uptake remains low, partly due to the vaccine's high out-of-pocket cost which makes it inaccessible for most Ghanaians. Incorporating HPV vaccines into the country's routine immunization program would support the free delivery of these vaccines to young girls prior to HPV exposure, which would not only reduce the population-level risk of HPV infection but would also mark an important benchmark toward WHO goals for ultimately eliminating the global burden of cervical cancer.

In 2023, the International Vaccine Access Center (IVAC) at the Johns Hopkins Bloomberg School of Public Health conducted several key informant interviews (KIIs) among stakeholders in Ghana as a country case study. The goals were (1) to identify key barriers and enabling factors in Ghana that may impact HPV vaccine introduction and (2) to explore the essential role that HPV vaccine advocacy may play in addressing these factors and advancing in-country HPV vaccination. These qualitative interviews drew together perspectives and insight from a diverse group of engaged stakeholders based in Ghana, and the views they shared provide a snapshot of the current status of HPV vaccines in Ghana as well as next steps for HPV vaccine advocacy.

Findings

Participants were identified using a snowball sampling approach, with a total of 10 KIIs conducted between March and May 2023. Respondents represented a range of various sectors, disciplines, and organizations, including Ghana's Ministry of Health (MOH), non-governmental organizations (NGOs), academic institutions, and advocacy groups promoting cancer prevention or women's health. The interviews followed a semi-structured format and were organized around three main topics:

- Current status of HPV vaccination in Ghana,
- Specific barriers or enabling factors anticipated to limit or facilitate uptake of the vaccine, and
- Potential opportunities for advocacy efforts to support or advance HPV vaccine programs in Ghana.

Respondents were mostly mid-career to senior professionals working in Ghana. They believed that cervical cancer is generally recognized as a public health concern by high-level government officials and that HPV vaccination is an important solution for reducing the risk of cervical cancer. Awareness of HPV vaccines and cervical cancer was said to be imbalanced, with greater understanding and knowledge concentrated among clinicians and communities with higher levels of education or health literacy. Several respondents described the success of the prior Gavi-supported pilot program and noted that this

subnational HPV vaccine effort achieved high coverage and brought national-level attention to cervical cancer and HPV vaccination. In the years since the HPV vaccine pilot, the Ghana Health Service has faced new challenges due to the COVID-19 pandemic, which has limited the initiative's long-term impact. Many respondents recognized that this lapse has delayed the integration of HPV vaccines into Ghana's national vaccine policy.

Potential Barriers for HPV Vaccine Introduction

"The WHO target [for cervical cancer elimination] is 90-70-90, you know, [which] says that 90% of all adolescents who are eligible should be vaccinated. I don't see that happening. I don't see that happening at all. It will be a miracle if it [we] have that happen before 2030. Even if we could do 10% of pre-adolescent girls, that will be a miracle... because HPV vaccine is considered ridiculously expensive."

- Academic researcher and HPV vaccine advocate

Multiple respondents identified the high cost of the HPV vaccine as a key sticking point for vaccine uptake at the individual or household level as well as for the willingness of the government to include HPV vaccines as part of the national health budget.

Respondents working as providers in Ghana's health sector noted that although the vaccine is offered and promoted by some private clinics and health centers, the majority of people in Ghana are unlikely to seek an HPV vaccine for themselves or their daughters despite its benefits. At present, families are required to pay out-of-pocket to immunize their daughters because the vaccine is not covered by the national health insurance scheme. As one doctor noted, *"HPV vaccination at the moment is considered to be a luxury, rather than a necessity...Yes, it's a personal expense, and even to get a pap smear is a personal expense. An HPV vaccine will set you back, let's say about —\$65 to \$70...Okay, in addition to transportation costs, healthcare charges, and all that, [parents] wouldn't buy an HPV vaccine out of pocket...You see, you understand how it looks like? Because I could get a brand-new phone, you know, for the cost of the vaccine."*

Respondents also discussed how the prohibitive cost of the HPV vaccine seems to impact supply in the private market. Given that public demand for the vaccine is not very high, only a few private health care centers maintain a consistent supply, which makes access even more difficult for the few families who want to vaccinate their daughters and can afford to do so.

Despite analyses demonstrating the cost-effectiveness and health benefits of HPV vaccination in Ghana⁴, the high cost of introducing the vaccine and limited government commitment (e.g., from both the MOH and the Ministry of Finance) were identified as key barriers to incorporating HPV into the national vaccine strategy. With the recent COVID-19 pandemic and high inflation rates contributing to a worsening economic crisis in Ghana⁵, HPV vaccination efforts face an uphill battle to demonstrate necessity and urgency when competing with existing health priorities for increasingly limited resources. One respondent from the MOH acknowledged, *"... [politicians] are limited by the finance, and it's not for HPV as it were, I'm talking about vaccines. And so, if you have a shortage of your routine vaccines, and you are now going to add on, I wonder how anybody would take you serious[ly]."*

Gavi co-financing for the vaccine was also identified as a specific concern, as long-term sustainability of the program would require a continued source of funding once the HPV vaccine is incorporated into the

national immunization schedule. Respondents noted that Ghana is transitioning away from Gavi support and has recently struggled to meet their co-financing requirements for routine childhood vaccinations, including MMR vaccines (measles, mumps, and rubella). Due in part to these funding constraints, Ghana has recently experienced declines in traditionally robust levels of coverage for childhood immunizations, and an acute shortage of routine vaccines adds to skepticism about the country's ability to add a new vaccine to its Expanded Program on Immunization (EPI) schedule. The ability to build political will – both within the country and also in conversations with external partner agencies – is recognized as essential but becomes complicated when donor support may only be offered within a limited time period or is subject to funding availability.

“Ghana's economic situation and with competing needs, we have issues with vaccines, even measles vaccines getting in short supply. I think we have to make a strong case to add [HPV] on, [because] we need some sort of domestic resource mobilization or for donors to take it up.”

— Representative from the EPI under Ghana Health Services

Several stakeholders mentioned the need to highlight the safety and demonstrated effectiveness of the vaccine to reduce risk of cervical cancer, a potentially fatal disease. Research has demonstrated that health care providers in Ghana have a low sense of urgency for educating patients about HPV vaccination due to competing health programs (such as malaria and HIV/AIDS)⁶. Even among nurses and midwives, levels of knowledge about cervical cancer risk factors remain low, with few of these providers having received HPV vaccines themselves⁷. One female KII respondent working as a medical officer acknowledged, *“I haven't received [my HPV vaccine] yet. I mean, I hope to get it soon. It's not — here, it's not readily available. It's also like really expensive.”*

Despite the considerable burden of cervical cancer in Ghana, a large majority of the population is not familiar with cervical cancer risk factors and symptoms, HPV, or the HPV vaccine⁸. Many interviewees highlighted a pressing need to increase knowledge among policy makers as well as the general public about the risks of HPV infection, the link to cervical cancer, and the role of immunization in primary prevention.

Enabling Factors for HPV Vaccine Introduction

“There are two vaccines we are passionate about to introduce as new vaccines: HPV and hepatitis B. These are crucial vaccines. Yet because of the haunting of the exit from Gavi, and with attendant high payment for the co-financing, everybody's not too sure how it's going to be in the [near] future.”

- Respondent from the MOH

Despite potential obstacles, all respondents uniformly expressed positive support for the introduction of HPV vaccine in Ghana, which has been discussed for over a decade. The notable success of the pilot introduction of HPV vaccines in 2013 was cited by many respondents as the strongest indication that an HPV vaccine program could be successfully implemented in the country. The five-year demonstration project, which vaccinated 33,000 9–11-year-old girls in four districts in the Northern and Greater Accra regions, received vocal support from public figures, political leaders, and national authorities². The program supplemented school-based delivery with community outreach strategies to reach vulnerable groups, and communication strategies were developed to improve levels of awareness among the

general public. Lessons learned from this successful pilot can be leveraged to inform national-level HPV vaccination efforts.

Ghana has been a global health leader championing the power of immunization as a prevention tool, becoming the first country to receive COVID-19 vaccines from the COVAX Facility in February 2021⁹. One respondent explained that Ghana's COVID-19 efforts can be replicated for HPV vaccines: *“if we were to do like the COVAX thing like we did for COVID-19 vaccination – Gavi was able to bring in quite a sizable number of vaccines to the COVAX facility. It's something like that, that has to be done. Something... to make vaccines accessible.”* Rapid mobilization and effective coordination led by the MOH demonstrated that multi-sector collaboration could be achieved to efficiently manage administration and financing, healthcare service delivery, training, and regulatory functions for timely vaccine introduction¹⁰. Furthermore, KII respondents cited greater public awareness about vaccine-preventable illnesses and prompt efforts to disarm misinformation and disinformation as benefits of the country's pandemic response. As one NGO representative commented, *“[For] the general public – at least COVID has also been quite positive on that, that awareness [about] the contribution that vaccines can make on this vaccine-preventable disease is very high.”*

Efforts to integrate HPV vaccine promotion with other women's health priorities and cancer screening efforts were also mentioned as opportunities to raise awareness among decision makers and increase vaccine uptake. Ghana has already established its commitment to routine immunization, as one respondent noted that, *“traditionally, or historically, Ghana has done very well with [childhood] vaccination. Because we have the Expanded Program on Immunization that goes way back, and we have kind of the infrastructure and the framework and the distribution channels in place for rolling out vaccine schemes.”* Introducing novel linkages or integrations can potentially promote vaccine uptake, as outreach and community education were described to be most impactful when they are paired with a more visible health campaign.

“We've been doing a lot of advocacy about breast cancer, but I've been using the breast cancer platform to create awareness about cervical cancer and other common cancers like even prostate cancer. I believe that if we are treating the woman, we should treat the woman holistically. And so we should not treat or control breast cancer, and leave cervical cancer. Women are also susceptible, they are also at risk of developing cervical cancer, and it happens to be the number two leading cancer in Ghana.”

- Respondent who runs a women's health NGO

Opportunities for Advocacy to Catalyze Next Steps

Given the complex landscape of potential barriers and strong enabling factors for rollout of HPV vaccine in Ghana, respondents mentioned the central role of vaccine advocacy and expressed that success of HPV vaccine introduction in Ghana would be strengthened by developing and implementing a comprehensive advocacy approach.

From an integrated public policy framework¹¹, Ghana is in the decision stage prior to transitioning to the implementation stage (blue line in the figure below). Vaccine advocacy may serve as a powerful driver to impact timely progress and the program's overall success.

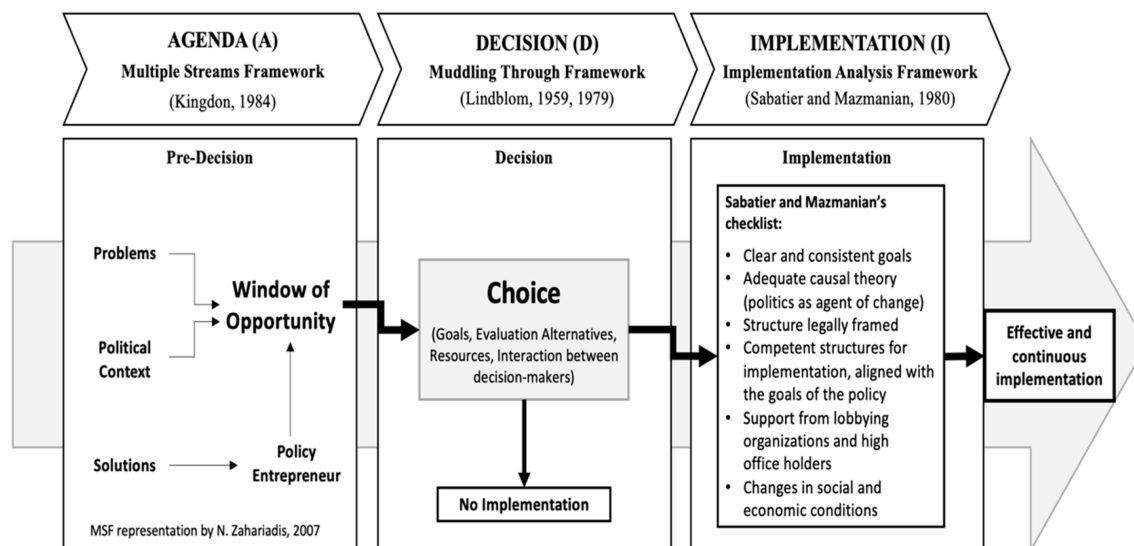


Figure 1. Integrated Policy-Making Process Framework¹¹

“So I think it's healthy for us to do our homework at the policy level, ensure that there is enough supply, the system is available for the public girls to get vaccinated, and such a system should be sustained. Once it's clarified and defined, then, of course the rest should follow. But at this stage, I think we [are] still at the policy level.”

- Representative from regional cancer NGO

Respondents discussed how NGOs and academic institutions can provide valuable technical assistance during this decision phase by providing up-to-date data and other relevant information to decision makers. Several respondents mentioned the importance of country-level statistics or national analyses to inform policy and build a case for HPV vaccination in discussions led by Ghana's National Immunization Technical Advisory Group (NITAG), including statistics on disease burden as well as population-based cancer registries. As of February 2023, the NITAG has recommended to the MoH that HPV vaccines should be included in routine immunization, though details such as the dosing schedule have yet to be finalized.

Once Ghana has achieved national-level commitment and has moved to the implementation stage of the process, respondents noted the need to engage the community to spread knowledge of HPV and generate demand for the vaccine. One clinical provider serving on the *Lancet Oncology* Commission on cancer in Sub-Saharan Africa explained, *“The burden of the disease [in Ghana] is not yet known...So the illiteracy level on the disease is so high that unless we educate people and let them know it's something that is happening — you know, with breast [cancer], it's there, you can see it. When something happens, you can see it, but the cervix, it's so stowed away.”* Respondents described the need to use communication tools and messaging that illustrate the link between HPV and cervical cancer and how the vaccine effectively prevents cancer in women. They also mentioned the need to include men in these discussions, as well as the importance of culturally sensitive messaging when advocating to

families and religious groups, given the stigma around HPV as a sexually transmitted disease. As a UNICEF representative noted, *“This is not a vaccine to encourage promiscuity, as it were, because it would be a big concern to the traditional cultural and religious people. But it’s supposed to just make sure that women are protected from the virus.”*

The influence of religious leaders, schools, and community groups (e.g., women’s groups, Queen Mother groups) was cited as critical to drive demand and generate support for the vaccine among adolescent girls and their families. Respondents discussed the success of using an integrated approach during the Gavi-sponsored demonstration project:

“The pilot was a huge success. In my opinion, it was a huge success. And I think it was well thought through. A school-based delivery mechanism was used. So teachers were trained, teachers were heavily involved, as well as community health nurses were heavily involved in the recruitment of the girls and then vaccination...And then the mechanism of delivery of the vaccines was also very good, using the school teachers, because in rural areas, in rural communities, there is a lot of trust. School teachers are held in high esteem.”

- HPV researcher

However, respondents also added that dedicated efforts will be needed to target girls that do not attend school to ensure that the most vulnerable and poorest girls — who are also least likely to have access to screening services — are protected against HPV.

To target these hard-to-reach communities and address potential challenges due to stigma, misconceptions, and religious objections, many respondents viewed civil society organizations (CSOs) and NGOs as influential voices who could serve as champions for the HPV vaccine. They mentioned the accomplishments and efforts of various groups which have already gathered support and spearheaded HPV or cervical cancer advocacy efforts in lieu of a coordinated national program. In explaining the role of these groups, one NGO respondent noted that *“much of the publicity around HPV vaccine availability, I will say, have been led by civil society, by private NGOs, and then it will be led by a few professionals who work within the sector. So you have the Gynecological Society of Ghana. We have the Pediatric Society of Ghana, these health professionals who have been concerned...they have seen the ravages of what cervical cancer could do. You don’t really see the state itself taking that front row, it is occasionally... the annual cervical cancer day, that you’ll see some statement here and there coming from the Ministry.”*

Lastly, the opportunity to provide a single dose of HPV vaccine as described in updated WHO guidance from December 2022¹² was mentioned as advantageous and a potential factor to accelerate the decision making and implementation stages of HPV vaccination policy. One respondent from an NGO that has been collaborating with MoH and the NITAG on HPV vaccine efforts explained that *“updated information on the single-dose HPV [means] that it’s even going to be a bit more cheaper than even the initial analysis that we did when we used the two doses... [it is] more likely that the country will go in for a single dose... [due to] the ease of implementation, the cost, all the other benefits.”* The adoption of the single-dose strategy was noted by most respondents as providing significant benefits for implementation, as *“one dose will be easier, because then you [don’t] have people lost to follow up. Yes, once you give them the dose, then they are fine... [but] sometimes the distance to the facility where the vaccine has been given may be a problem, if they live too far away, and then they need to*

come back for a second dose a month after or something, that may pose a problem.” Respondents consistently stated that the single-dose option would be feasible in Ghana, though clear communication is needed about its benefits, including reassurances that the safety and efficacy of the vaccine has been confirmed and that robust research studies have shown that protection from one dose is equivalent to two or three doses.

Next Steps

These KIIs gave valuable input about the real-world uncertainties related to the cost of the vaccine, Ghana’s current economic crisis, and competing health priorities to provide a solid foundation for targeting these potential hurdles to national HPV vaccine introduction.

“So now there is a lot of willingness from the Ministry to introduce. But so the whole question about the costs, how adding that into the current portfolio, and the extent to which there will be the ability to be able to meet the financing needs of the current portfolio vaccines, plus any new vaccines that will be introduced. That is where the context of the conversation is now.”

- NGO Representative

Ghana is well-poised to take the next important step toward cervical cancer reduction. A national HPV vaccination program will benefit from the advantages and enabling factors described in this context, though there are barriers or potential obstacles that will need to be proactively addressed. According to respondents, a comprehensive strategy for HPV advocacy that includes building awareness, educating the community, and mobilizing local champions and supporters will be essential to ensure the success of HPV vaccine introduction. CSOs, NGOs, and other in-country partners should continue to spearhead this advocacy strategy, which will hopefully accelerate the decision-making process for introduction and increase HPV vaccine acceptance among the public to optimize uptake and coverage once the program has been rolled out.

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