

Identifying strategies to reach out-of-school girls and those in hard-to-reach areas for HPV vaccination in Ethiopia



Key takeaways from multistakeholder consultation workshops

Background

Ethiopia introduced human papillomavirus (HPV) vaccination in December 2018 to reduce the risk of HPV-associated cancers. Initially, the vaccine was administered via a two-dose schedule to 14-year-old girls. In 2023, the country adopted a single-dose strategy based on emerging global evidence, anticipated programmatic advantages, and cost savings. Results from tracking efforts varied considerably, with coverage estimates¹ for 2023 between 56 and 86 percent. These data underscored persistent gaps in reaching the full target population. In particular, many vaccine-eligible girls were missed due to being out of school or in areas hard to reach.

In partnership with the Ministry of Health, PATH convened national multistakeholder consultative workshops to address these challenges. Participants included religious and traditional leaders, local political leaders, civil society organizations, universities, ministries of health and education, and statistical bureaus. The workshops focused on developing strategies to more effectively identify and enumerate out-of-school (OOS) and hard-to-reach (HTR) girls eligible for HPV vaccination. The resulting recommendations aim to improve equitable vaccine access and strengthen the accuracy of population estimates.



Participants engaged in a discussion during a workshop in Ethiopia. Photo: PATH.

Ethiopia workshops:

- Somali Region: April 10, 2025
- Amhara Region: April 30–May 1, 2025
- Adama City: July 4–5, 2025

Characterizing OOS and HTR girls and barriers to identification and enumeration

Identification

OOS girls are defined as those who have never enrolled in school, have discontinued their education, attend irregularly, or live with disabilities that prevent them from attending.

HTR girls are characterized as those who face significant barriers, such as social or economic constraints, cultural norms, geographic or topographic challenges, housing insecurity, or difficulty accessing health services.

Additionally, large populations reside in “red zones” (areas controlled by armed informal groups) where government health workers cannot safely operate.

Enumeration

Inaccurate or outdated census data, coupled with high mobility in pastoralist and internally displaced communities, lead to frequent undercounting. The lack of formal identification for migrant populations and discrepancies between different institutional databases (e.g., health versus education) result in coordination barriers. Moreover, there are shortages of fuel for mobile teams, a lack of digital devices for real-time reporting, and insufficient incentives for community volunteers.

Existing resources

Stakeholders identified several existing data streams that should be combined for better accuracy:

- **Health information systems.** District Health Information Software 2 (DHIS2), the electronic Community Health Information System (eCHIS), and family folders maintained by health extension workers.
- **Education records.** Education Management Information System (EMIS) and Parent-Teacher-Student Association registries.
- **Civil registries.** Birth certificates and community-based health insurance enrollment lists.
- **Community data.** *Kebele* (village) administration census books and religious institution member lists.

Enumeration strategies

Among the strategies discussed for identification and enumeration, the most frequent included:

- Establishing joint task forces between the Ministry of Health, Ministry of Education, and Ministry of Women and Social Affairs to share registries.
- Engaging health extension workers, community and religious leaders, kebeles/villages, clan leaders, and women's development groups to conduct house-to-house social mapping to identify age-eligible girls.
- Identifying vaccine-eligible girls at water collection points, during traditional ceremonies, in religious institutions (e.g., Islamic schools), and at community marketplaces.
- Using school dropout lists and "white paper" records from previous years to trace girls who have left the education system.

Stakeholders recommended new, underused approaches to strengthen the identification and enumeration of OOS and HTR girls eligible for HPV vaccination (see Table 1).

Table 1. Innovative or practical strategies.

Recommendations	Feasibility	Cost	Advantages	Ranking (based on cost and feasibility)
Community-based health insurance campaign integration	Utilizes an existing annual national mobilization event for insurance	Very low cost; minimal cost to add an “HPV identification” column to community-based health insurance forms	Advances large-scale reach; links vaccination eligibility with broader household health coverage	1
Religious and clan leader partnerships	Culturally intuitive and leverages existing traditional influence structures	Low cost; Requires only small per diems/transportation for leaders and for sensitization meetings	Improves trust level; overcomes vaccine hesitancy; reaches girls in conservative communities or areas that are hard to reach	2
Youth-led social media mobilization	High impact in urban areas; limited by network connectivity in rural zones	Low cost; Cost-effective through TikTok/Telegram and youth volunteer groups	Engages adolescents directly; counters misinformation in local languages; fosters peer-to-peer trust	3
Integrated electronic Community Health Information System digital tool	Requires tablet rollout and training; high potential for integration with existing systems	High initial/low long-term cost; High hardware cost but eliminates paper logistics	Facilitates real-time tracking; reduces data duplication	4

Additional strategies discussed included:

- **Direct surveillance.** House-to-house headcounts conducted by woreda (district) staff, which are considered the most accurate sources, but are resource-intensive.
- **Digital systems.** Leveraging the electronic Community Health Information System and existing family folders maintained by health extension workers to track residents.

- **Social structures.** Using the Health Development Army, youth associations, and local volunteers for mobilization.
- **Religious and programmatic data.** Utilizing christening registrations (specific to Amhara), religious school registers, and school meal program rosters.

Developing an action plan

At the end of the workshops, stakeholders identified elements that could culminate in an action plan, including focus areas, resources needed, responsible stakeholders, and monitoring plans. The most frequently cited activities were:

- **Finalizing terms of reference.** Instruct the technical working group to finalize the memorandum of understanding defining roles between the Ministry of Health, Ministry of Education, and Ministry of Women and Social Affairs.
- **Building capacity.** Launch a training-of-trainers program for health extension workers on social mapping and conflict-sensitive identification.
- **Piloting digital tools.** Conduct a feasibility pilot of the new enumeration tablet tool in selected “hotspot” districts before national scale-up.
- **Mobilizing resources.** Secure dedicated funding for last-mile logistics (e.g., per diems for mobile teams in nomadic areas).
- **Developing a monitoring framework.** Establish periodic review meetings at the woreda/district level to adjust strategies based on real-time coverage data.

Conclusion and next steps

The workshops underscored that the school-based model alone is insufficient to meet national equity targets. Success requires a transition toward a decentralized, community-owned identification and enumeration process that specifically reaches migrant families, internally displaced populations, and girls living with disabilities. Integrating digital tools such as the electronic Community Health Information System is important for sustainability but must be balanced with community engagement to ensure no eligible girl is left behind in Ethiopia.

References

1. International Agency for Research on Cancer. Cervical cancer incidence and mortality map: Ethiopia. Accessed: March 12, 2026. <https://gco.iarc.who.int/today/en/dataviz/maps-heatmap?cancers=23&types=0&sexes=0&palette=Blues&mode=population&zoom=1>