

HPV-Plus - Integrated Approaches to HPV Vaccination in Tanzania

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Background

To extend the health impact of human papillomavirus (HPV) vaccination, the government of Tanzania, with Gavi funding implemented by Jhpiego, supported the development, demonstration and implementation of a program termed “HPV Plus”. Government contributions worked through the MOH, PORALG and education authorities at National and Subnational levels. This summary note is to provide context to the HPV-Plus Toolkit being made available on the TechNet21 resource collection.

“HPV Plus” description

HPV Plus aimed to include selected adolescent health interventions to be provided at the same time as vaccination. The additional services include:

- a) for girls and boys aged 10 to 14 years, education on adolescent health, sexual and reproductive health (including cervical cancer), HPV and vaccination; and
- b) for girls aged 14 years: screening for nutrition and vision problems, nutritional advice, antiparasitic (deworming) medicines, and HPV vaccination.

These services were chosen on the basis of evidence reviews and WHO advice, contributions from human-centered design activities with girls and community members, and intensive consultation with senior Tanzanian health, education, nutrition and other health leads. These informed a policy and implementation package, published by the Tanzania authorities as HPV Plus.

Phasing and implementation model

Jhpiego supported the implementation and testing of HPV Plus package with Gavi funding over two phases:

- **Phase 1**, March 2019 – March 2020: Formative research and consultations to develop a policy and implementation plan, package of tools to support implementation and a four-month demonstration (December – March) in six health facilities (3 each in Dar es Salaam and Njombe regions);
- **Phase 2**, September 2020 to October 2021: implementation across six District Councils of Njombe Region. Njombe is one of Tanzania’s 31 Regions (the highest subnational administrative category) in the south of the country. The scale-up comprised 73 health facilities.

In 2023/4 HPV-Plus was also implemented in Zanzibar, with USAID support. National scale-up is considered.

HPV Plus was implemented as a part of regular HPV vaccination school outreach visits, whereby health facilities visited local schools in their catchment area on a regular basis throughout the year. Each facility undertook outreach visits once or twice a month, and served between four and 10 schools. The additional interventions under HPV Plus were provided during the school visit prior to vaccination of eligible girls.

Service delivery outcomes

Over fourteen months of the implementation period in Njombe Region, HPV Plus reached over 118,000 girls and boys aged 10 to 14 years with comprehensive health education, over 18,000 girls aged 14

years with a first or later dose of HPV vaccine. This equated to a first and second dose HPV vaccine coverage of over 100% as recorded in administrative data. Of the girls vaccinated, 90% (over 16,000) received visual and nutrition screening services, and slightly over 50% of girls received anti-parasitic medicines. Over 95% of vaccinations were provided through regular school-outreach, with a small proportion provided through community outreach, or on-demand in health facilities.

Evaluation

A detailed evaluation covering qualitative feasibility, acceptability, and sustainability was carried out by the Johns Hopkins University's International Vaccine Access Center in mid-2021; as a collaboration with Jhpiego, Ministry of Health, President's Office and Regional Authority and Local Government, and Muhimbili University of Health and Allied Sciences. This was supplemented by analysis of service delivery records in November 2021 and May 2022. These showed that the HPV Plus program can be feasible and acceptable, and associated with high vaccination coverage; as long as key aspects of resourcing and communications are met. Additional rapid estimates of program costs in August 2022 provided two perspectives: costs of an international technical assistance partner supporting development and implementation; and demonstrated feasible program costs for the government to sustain HPV Plus. During this assessment, some ten months after external support funding had ceased, HPV Plus was continuing to be implemented in many health facilities in Njombe region.

Lessons learned

Key determinants of success in the development phase included the mobilization of a small multi-disciplinary group of national experts who worked intensively on guideline development and the implementation package, informed by human-centered design insights and iterative consultation with health and education authorities; all backed up by high level political support. The strong suite of technical materials developed with external technical assistance was a key contributor to success.

Key contributors in the implementation phase were regular planning and monitoring activities that were well integrated with broader vaccination and primary health care meetings, and the resourcing of school-outreach visits (including outreach allowances and other travel costs). Also essential to effective implementation was strong collaboration with education managers in planning, and with teachers to support local communications with families, registration of girls and documentation of services provided. Annual refresher training on all aspects of HPV Plus was strongly recommended.

Some important limitations were noted when attempting facility-based implementation and this is subject to continuing research in 2024. Maintenance of stock of anti-parasitic medicine was disrupted, partly by procurement systems not inclusive of adolescent population targets. While teachers had an important role in documentation, they did not provide health education; this is recommended for future scale-up. Social mobilization was limited by resource constraints on inclusion of community leaders in planning and monitoring meetings; and limiting take-home education products.

Conclusion

Tanzania's "HPV Plus" demonstrates, in one rural region, a feasible acceptable and sustainable model of adding select preventive adolescent health activities onto school outreach visits for HPV vaccination. It may apply to other settings with a mature HPV vaccination program, where there is established coverage, and a government commitment to both a school health program and to advancing adolescent health.

Publications

Publications below provide additional evaluation evidence

- Morgan C, Giattas MR, Holroyd T, Pfitzer A, Engel D, Sidibe A, Holloway M, Bloem P, Fields R, Shimp L, Kumar S. Integration of other services with human papillomavirus vaccination; lessons from earlier in the life course highlight the need for new policy and implementation evidence, *Vaccine*, Volume 40, Supplement 1, 2022, Pages A94-A99.
- Guillaume D, Rosen JG, Mlunde LB, Njiro BJ, Munishi C, Mlay D, Gerste A, Holroyd TA, Giattas MR, Morgan C, Sunguya BF, Kyesi F, Tinuga F, Ishengoma J, Limaye RJ. Acceptability of an integrated school-based HPV vaccine program within two districts of Tanzania: a qualitative descriptive study. *PLOS Global Public Health*. 2023 Jan 4;3(1):e0001394.
- Rosen JG, Guillaume D, Mlunde LB, Njiro BJ, Munishi C, Mlay D, Gerste A, Holroyd TA, Giattas MR, Morgan C, Kyesi F, Tinuga F, Ishengoma J, Sunguya BF, Limaye RJ. Feasibility and sustainability of a school-based platform for integrated delivery of HPV vaccination with adolescent health services in Tanzania: qualitative insights from planning stakeholders and program implementers. *Health Policy and Planning* 2023 May 1;38(4):486-95.

Toolkit available

The items below are the Tanzania local tools available to support HPV-Plus implementation.

Tool #1: HPV Plus Integration Guidelines May 2020 in English

Tool #2: HPV Plus HCW Job Aide in Swahili

Tool #3: HPV Vaccine and Integrated Service Recording Form

Tool #4: HPV Vaccine and Integrated Service Tally Sheet

Tool #5: Integration Readiness Assessment Tool November 2020