

HUMAN CENTERED DESIGN

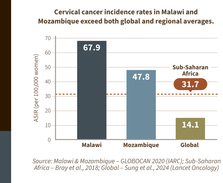
Community-driven solutions

for integrated HPV vaccination: results from human-centered design in Malawi and Mozambique

AUTHORS

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Source: Malawi & Mozambique – GLOBOCAN 2020 (IARC); Sub-Saharan Africa - Bray et al., 2018; Global – Sung et al., 2024 (Lancet Oncology)

Introduction

Cervical cancer incidence rates in Malawi and Mozambique are among the highest in the world and on the continent. Human papillomavirus (HPV) vaccination is a proven intervention for cervical cancer prevention, yet uptake in sub-Saharan Africa faces persistent barriers. Access to health care is often limited, and girls living in under-reached communities are among the most marginalized groups in accessing priority health services.

What integrated approaches can **increase uptake of HPV vaccination?**

Study Overview

Implementation research to generate, implement, and evaluate integrated delivery approaches to increase uptake of HPV vaccination

Across two districts in Malawi and two in Mozambique, we selected a total of **12 intervention** and **12 control** catchment areas

PHASE 1
Community-led Design
of integrated solutions

In Phase 1, we held
18 workshops
across Malawi's Machinga and Mchinji districts and
17 workshops
across Mozambique's Cahora Bassa and Tsangano districts of Tete Province.

PHASE 2
Implement
solutions and refine based on ongoing feedback

PHASE 3
Evaluate Impact
of integrated solutions on HPV vaccine uptake and use of adolescent services

Community-led Design Methods

Adolescents (9 to 14 years old), caregivers, health workers, provincial and district health authorities, teachers, and community and religious leaders co-developed integrated delivery solutions to increase HPV vaccination uptake through participating in a series of human centered design (HCD) workshops.



Understanding needs

Small groups, separated by stakeholder type, participated in interactive activities designed to elicit attitudes, experiences, and preferences regarding HPV vaccination and other adolescent health services.

Pictured above: Adolescents actively engage in workshop activities to share their perspectives on barriers and facilitators to HPV vaccine access (Tsangano, Mozambique)



Ideation and prototyping

Mixed groups of stakeholders convened to collaboratively brainstorm and co-create potential solutions in response to insights generated in the Understand workshops. Participants worked together to develop prototype plans for priority ideas, combining diverse perspectives across the stakeholder types.

Pictured above: A mix of stakeholders collaborate on ideas to address barriers to HPV vaccination uptake (Machinga, Malawi)



Solution prioritization

Prototyped solutions were presented to community and government stakeholders for evaluation against agreed criteria, including ease of implementation, potential impact, relevance, and innovation. This process resulted in prioritized solutions for subsequent implementation.

Pictured above: Participants consider how solutions to increase access and uptake of HPV vaccination rank against criteria such as ease of implementation, potential impact, relevance, and innovation (Machinga, Malawi)



A health worker hosts a lecture for adolescents and their caregivers to promote HPV vaccination alongside other adolescent health services (health facility in Cahora Bassa, Mozambique)

Findings Across Countries

Integrated service delivery solutions generated by communities included **integrating HPV vaccination into schools' health and nutrition programming**, plus **integration at community level** to reach out-of-school girls. Solutions prioritized by stakeholders in both Mozambique and Malawi centered on **strengthening integration of HPV vaccination with the respective adolescent-friendly health service packages** across delivery points. Specifically, stakeholders underscored the importance of offering HPV vaccination alongside services such as HIV testing and counseling, family planning, education on sexually transmitted infections, and more.

Stakeholders stressed the importance of **pairing strengthened integrated delivery with intentional demand generating strategies,** such as hosted community dialogues and peer-led engagement approaches.

Adolescents and caregivers emphasized the need for **trusted messengers**, with teachers and caregivers emerging as central figures who could promote or block vaccination uptake.

> *"By including everyone's opinions instead of relying on secondhand information, the workshops helped ensure accurate and consistent HPV vaccination messages were shared across the community."*
>
> **— Workshop participant,** Teacher, Mozambique

Reflections

1. Structuring workshop activities so nine- and ten-year-old girls could meaningfully participate proved critical, and **age-adapted methods** such as drawing and storytelling allowed their perspectives to inform solutions.
2. Convening **a mix of stakeholders led to dynamic discussions** and final solutions that were acceptable to adolescents, caregivers, teachers, health workers, health authorities, and community leaders alike, and thus more likely to succeed.
3. The HCD process catalyzed **immediate implementation** of contextually relevant solutions. In both Malawi and Mozambique, stakeholders implemented solutions before any external logistical or technical support was provided, underscoring the excitement and **ownership fostered by the participatory process**.

Government of Malawi

Ministério de Saúde

VillageReach

Gavi The Vaccine Alliance

Scope Impact

Interested to learn more?
You can contact us at
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