

ANNEX 12. COUNTRY CASE STUDIES (BURKINA FASO, KENYA, MALAWI AND THE PHILIPPINES)

1 COUNTRY CASE STUDY REPORT FOR BURKINA FASO

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ACRONYMS

ART	Antiretroviral Treatment
ASBC	Agent de Santé à Base Communautaire / Community-Based Health Agent
ASC	Agent de Santé Communautaire / Community Health Agent
CAMEG	Centrale d'Achat des Médicaments Essentiels Génériques
CBSS	Community-Based Self-Sampling
CBO	Community-Based Organization
CHAI	Clinton Health Access Initiative
CHR	Centre Hospitalier Régional / Regional Hospital Center
CHU	Centre Hospitalier Universitaire / University Hospital Center
CMA	Centre Médical avec Antenne chirurgicale / Medical Center with Surgical Unit
CMU	Centre Médical Urbain / Urban Medical Center
COBUCAN	Coalition Burkinabè contre le Cancer
COP	Country Operational Plan
CSPS	Centre de Santé et de Promotion Sociale / Health and Social Promotion Center
CSO	Civil Society Organization
CxCa	Cervical Cancer
DHIS2	District Health Information System 2
DLBM	Direction des Laboratoires de Biologie Médicale
DPCM	Direction de la Prévention et du Contrôle des Maladies non transmissibles
EQ	Evaluation Question
FCFA	Franc de la Communauté Financière Africaine
FGD	Focus Group Discussion
GC7	Grant Cycle 7
GF	Global Fund
GTT-ECCU	Groupe Technique de Travail pour l'Élimination du Cancer du Col de l'Utérus
HIV	Human Immunodeficiency Virus

HPV	Human Papillomavirus
IEC	Information, Education, Communication
KII	Key Informant Interview
LEEP	Loop Electrosurgical Excision Procedure
LNR-HPV	Laboratoire National de Référence HPV
LNOB	Leave No One Behind
LTFU	Lost to Follow-Up
MoH	Ministry of Health
PCR	Polymerase Chain Reaction
SITEB	National Integrated Biological Sample Transport System
SUCCESS	Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy
TA	Thermal Ablation
TB	Tuberculosis
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
VAT	Visual Assessment for Treatment eligibility
VIA	Visual Inspection with Acetic Acid
WLHIV	Women Living with HIV
WHO	World Health Organization

EXECUTIVE SUMMARY

The UNITAID Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy (SUCCESS) project in Burkina Faso represents a pioneering effort to introduce HPV-based screening and thermal ablation treatment for cervical cancer elimination in a fragile, low-resource settings. Implemented from December 2019 to December 2025 by Expertise France and Jhpiego, with civil society engagement led by UICC, the project operated across 21 primary sites in 6 of the country's 13 health regions. SUCCESS reached 38,348 women through facility-based screening (Phase 1) and an additional 3,433 women through community-based self-sampling (Phase 2).

Key achievements: The SUCCESS project in Burkina Faso is rated as a partial success. The project successfully demonstrated proof of concept for HPV-based screening and thermal ablation, achieved exceptional treatment rates among triage-positive women, generated strong community demand, and secured key policy milestones. However, the project fell short on sustainable transition planning: while treatment devices were still on use, HPV-based self-sampling ceased in all project sites at project closure due to the absence of government financing, meaning the demonstration has not yet translated into a permanent change in the health system. However, the project demonstrated the high feasibility and acceptability of HPV primary screening with thermal ablation treatment. HPV positivity was 19.3% in the general population and 34.9% among women living with HIV (WLHIV), confirming elevated risk in this vulnerable group (prevalence of 24.6% of high-risk genotypes (16, 18, 45), including 22.7% in the general population and 29.2% in WLHIV). Significant loss to follow-up occurred at multiple cascade steps but treatment rates of triage positive women were exceptional: 94.1% of HPV-positive women from the general population eligible for ablation underwent thermal ablation, and 89.9% of WLHIV received treatment. Self-collection was overwhelmingly preferred, with 95.6% of women choosing this method over provider collection. The project trained 420 health workers (~20 per site), deployed 61 thermal ablation devices (12 Liger, 49 WISAP), and established HPV testing capacity across 17 laboratories using the GeneXpert HPV, Abbott, and Roche Cobas platforms.

Implementation findings: Phase 1 (June 2021 to December 2022) enrolled a combined total of 38,348 women across 21 sites, generating critical insights on cascade performance and treatment continuity. The mean delay from screening to treatment was 59.8 days (median: 45 days; IQR: 16–83 days). Women who received results within 20 days were significantly more likely to complete treatment within 90 days than those who waited more than 40 days (100% vs. 60.3%; $p < 0.0001$). During phase 1, Visual Inspection with Acetic Acid (VIA) linkage rates were lower than anticipated, with only 63.6% of HPV-positive women in the general population and 44.4% of WLHIV returning for triage assessment. However, during this phase, 94.1% of women in the general population and 87.3% of WLHIV who were VIA-positive with moderate lesions eligible for thermal ablation received treatment. Only 21.7% (5/23) of those referred for significant lesions underwent Loop Electrosurgical Excision Procedure (LEEP); 12.5% (1/8) of WLHIV referred for significant lesions underwent LEEP.

Phase 2 (2023-2025) community-based self-sampling enrolled 3433 women across 10 sites. This phase demonstrated higher linkage rates: 94.6% VIA/VAT completion and 98.4% treatment completion in the door-to-door model; 91.7% VIA/VAT and 98.9% treatment in the civil society/community based organisational model.

Differences can be explained by the fact that the Phase 1 facility-based model relied on women returning to facilities for results and treatment, leading to high LTFU (36-56% at HPV+ VIA step). The Phase 2 community-based model, with active follow-up by community health workers, achieved near-universal linkage and treatment completion.

Critical sustainability challenges: Despite programmatic success, the project faces severe sustainability barriers. Post-project, HPV testing collapsed entirely at all sites due to lack of government funding, while thermal ablation continued at some facilities. The abrupt termination of the project without an adequate transition phase led to service disruption and eroded community trust, as some women who provided samples in the final months never received results. Cost barriers emerged immediately: HPV tests cost 15,000-50,000 FCFA (USD 25-83) in private facilities, while HPV testing was free of charge during the project period. Laboratory capacity gaps persisted, with GeneXpert devices unavailable at many sites, causing delays of weeks to months in results. Geographic coverage of the project remained limited to 6 of 13 health regions, leaving significant inequities.

Summary of conclusions, evidence and considerations for the future

Conclusion	Findings/Evidence	Suggestions for the future
1. Human Papillomavirus (HPV) testing services have collapsed entirely post-project. The approved Global Fund GC7 allocation has not yet been implemented, meaning trained providers and established demand for services are at risk of being lost.	At project closure in December 2025, HPV testing ceased at all 21 SUCCESS sites. Providers report continued demand from women but inability to respond. Global Fund GC7 cervical cancer-specific funding was secured but as of May 2026 no tests have been procured and distributed. The trained workforce of 420 health workers represents investments at risk of being stranded without commodities to support their use.	Activate Global Fund GC7 procurement of HPV tests immediately and ensure distribution to all SUCCESS project sites and WLHIV care sites. Advocate to the Global Fund to expand coverage from 20% of WLHIV to 100% of WLHIV and to include general-population women aged 30–49 in subsequent funding cycles. Establish a formal coordination mechanism between the Ministry of Health (DPCM, HIV Programme), the Global Fund Principal Recipient, and CAMEG to ensure timely procurement, distribution, and monitoring.
2. The absence of domestic budget allocation is the most critical structural barrier to sustainability. Without government	The Transition Plan (November 2023) explicitly acknowledged that the Ministry of Health 'cannot support this burden' and reverted to VIA as the primary screening method. Despite	Secure domestic budget allocation of at least \$2–3 million per year by 2027, enabling screening of 20–30% of eligible women. Launch a high-level advocacy campaign targeting

Conclusion	Findings/Evidence	Suggestions for the future
financing, Burkina Faso will remain wholly dependent on donor funding and unable to achieve the WHO 90-70-90 targets.	strong policy commitments, including the establishment of the GTT-ECCU by ministerial decree in 2021 and validation of national guidelines in December 2024, no budget line for HPV tests has been created. The Extension Plan's two-year financing roadmap (2024–2025) has not been implemented. The C4P costing exercise demonstrates that screening 70% of eligible women would cost more than \$10 million, exceeding current allocations by an order of magnitude, but that a phased approach starting with WLHIV might be financially viable at \$2–3 million per year.	the Ministry of Health, Ministry of Finance, and National Assembly to secure a dedicated cervical cancer budget line in the 2027 national budget, using C4P costing data to demonstrate cost-effectiveness and return on investment. Advocate for a cervical cancer budget line protected from reallocation to other priorities. Propose a phased budget allocation starting with WLHIV and expanding to the general population over 3–5 years. Identify and engage high-level champions, the First Lady, the Minister of Health, and the National Assembly Health Committee Chair, to sustain political commitment through institutional transitions.
3. Health insurance inclusion is the most viable pathway to sustainable and equitable financing at scale in the long term. Burkina Faso's national health insurance scheme (RAMU) does not currently cover cervical cancer screening or treatment, leaving women without a sustainable access mechanism when donor financing ends.	As of May 2026, HPV testing in private facilities costs 15,000–50,000 FCFA (\$25–\$83 USD), equivalent to 3–9% of annual per capita income, making services inaccessible to most women. RAMU does not include HPV testing, thermal ablation, or follow-up care. Without insurance coverage, the cost burden may fall on women or on donor projects. The C4P costing exercise provides the data needed to model insurance inclusion and calculate premium impacts.	Advocate to the National Health Insurance Agency (CNAM) to include HPV testing, thermal ablation treatment, and follow-up care, including radiotherapy, in the RAMU benefit package. Provide detailed costing data to inform premium calculations and benefit package design. Propose a pilot programme in one or two regions to demonstrate feasibility and cost-effectiveness before national rollout. Ensure that uninsured women, particularly rural and low-income women, have access to free services through government-funded programmes, so that insurance inclusion does not inadvertently widen the equity gap.
4. The centralised, single-warehouse supply chain is a critical vulnerability. The fire resulted in delays exceeding six months, and	The CAMEG fire in 2022 destroyed HPV test stocks (over 11,400 HPV tests), and caused result delays of six months or more at multiple sites. Women became discouraged and stopped returning for	Distribute HPV test stocks across multiple regional warehouses, including Ouagadougou, Bobo-Dioulasso, and Koudougou, to eliminate single-point-of-failure

Conclusion	Findings/Evidence	Suggestions for the future
drove widespread loss to follow-up, demonstrating that a single point of failure can destabilise the entire programme.	results, contributing significantly to the 36.4–55.6% LTFU rate at the HPV+ to VIA triage step. The project had no backup distribution channels or buffer stocks at regional or facility level. Supply chain vulnerabilities were identified as a risk but were not structurally mitigated prior to the fire.	risks. Maintain 3–6-month buffer stocks at the facility level to absorb supply chain disruptions. Develop backup distribution channels independent of CAMEG, including private couriers and direct facility delivery. Implement first-expiry-first-out (FEFO) inventory management to reduce wastage. Ensure adequate cold-chain capacity, refrigerators and freezers for PreservCyt solution, across all sites.
5. Laboratory turnaround time is the primary driver of loss to follow-up and the single most modifiable bottleneck in the screening-to-treatment cascade. Reducing it from 28 days to 1–2 days would transform cascade performance.	The median delay from sample collection to HPV result was 28 days (IQR 22–38). Women receiving results within 20 days achieved 100% treatment completion within 90 days; those waiting more than 40 days achieved only 60.3% ($p < 0.0001$). Lack of on-site GeneXpert machines at many sites necessitated sample transport, adding days to weeks to turnaround times. Phase 2 community-based models, with active CHW follow-up, achieved 94.6–98.9% cascade completion, demonstrating that when delay is removed, near-universal continuity is achievable.	Reduce laboratory turnaround time from 28 days to 1–2 days as the single highest implementation priority. Conduct a cost-benefit analysis comparing centralised laboratory testing versus point-of-care HPV testing. If the pilot demonstrates feasibility, develop a scale-up plan to deploy POC testing at all high-volume sites (>500 women screened per year). Implement facility-level quality assurance programmes to ensure accuracy of point-of-care testing. Strengthen supply chain resilience and LTFU tracking tools in parallel to ensure that faster results are matched by effective patient navigation.
6. Reliance on the public sector alone is insufficient to achieve scale or financial sustainability. Private sector engagement, for both service delivery and financing, is largely untapped in Burkina Faso's cervical cancer response.	HPV testing in the private sector costs \$25–\$83 per test, concentrating services in Ouagadougou and Bobo-Dioulasso and excluding rural and low-income women entirely. No public-private partnerships were developed during the SUCCESS project. Large private sector employers, including mining companies, telecommunications companies, and government agencies, represent an untapped source of	Conduct a market assessment to identify private sector opportunities across private laboratories, clinics, employers, and insurers. Develop public-private partnerships for HPV testing, with private laboratories processing samples at regulated prices, and for service delivery, with private clinics offering screening at subsidised prices for low-income women. Pilot a franchising model

Conclusion	Findings/Evidence	Suggestions for the future
	demand and financing. Pharmacy networks provide a potential community-level distribution point for self-sampling kits that was not explored during the project.	where private providers are licensed to offer HPV testing at regulated prices with government subsidies for low-income women. Engage large employers, mining companies, telecommunications companies, and government agencies, to sponsor screening for employees and surrounding communities. Pilot pharmacy-based self-sampling distribution in Ouagadougou and Bobo-Dioulasso, offering subsidised pricing for low-income women. Strengthen the regulatory framework to ensure quality and affordability of private sector services. Incorporate early and aggressive transition planning, supply chain resilience, point-of-care testing, diversified financing, conflict-sensitive programming, and private sector engagement as core components of programme design from the outset, not as late-phase adaptations.
7. Loss to follow-up disproportionately affects women living with HIV and is driven by structural barriers, transportation costs, stigma, competing health priorities, that require active, individualised support rather than passive reminder systems.	Among WLHIV, 55.6% did not return for VIA triage after a positive HPV result, 19 percentage points higher than the general population. Key drivers included transportation costs, stigma at HIV clinics, and fatigue from multiple competing health demands. Phase 2 demonstrated that CHW home visits and transportation subsidies dramatically close this gap, achieving 94.6–98.9% cascade completion. Cervical cancer screening was offered opportunistically rather than as a routine component of every HIV care visit, limiting systematic coverage.	Provide transportation subsidies to all WLHIV to facilitate follow-up attendance, funding sources to include carcinogenic product taxation and private sector resource mobilisation. Deploy community health agents (ASC) to conduct home visits for all WLHIV and general-population women who miss appointments. Fully integrate cervical cancer screening into HIV care, with screening offered at every HIV care visit, not opportunistically. Engage WLHIV peer educators to provide peer support and encourage screening and treatment completion. Implement automated SMS reminders three days before, on

Conclusion	Findings/Evidence	Suggestions for the future
		the day of, and three days after a missed appointment. Pilot two-way SMS so women can confirm or reschedule appointments directly.
8. Cascade data are fragmentary, preventing systematic analysis of loss to follow-up across the screening-to-treatment continuum and inhibiting the development of targeted interventions.	Available data do not include the number of HPV-positive women who completed VIA triage, making it impossible to calculate precise LTFU rates at the HPV+ to VIA step from routine monitoring data. DHIS2 Tracker was piloted at only three sites, and full national rollout did not occur due to funding constraints and interoperability challenges. The absence of consistent cascade data, from HPV test taken through results, VIA triage, treatment eligibility determination, and treatment completion by type, means that bottlenecks cannot be reliably located or addressed.	Ensure systematic data collection across all cascade steps: HPV test taken, results provided, VIA/VAT triage visit completed, treatment eligibility determined (precancerous lesion or invasive cancer), and treatment completion by type. Prioritise DHIS2 Tracker rollout to all sites to enable real-time monitoring. Tailor interventions to address gaps at specific cascade steps as they are identified, rather than applying uniform follow-up strategies regardless of where attrition occurs.
9. Provider confidence and service quality are assets built through intensive training and mentorship during the project, but are at risk of degradation without continued supportive supervision and peer learning.	The project trained 420 health workers across 21 sites on HPV screening, VIA/VAT, and thermal ablation. Providers expressed high confidence in their skills and strong satisfaction with the training. However, post-project supervision has ceased, consumables are unavailable at many sites, and providers lack the tools and resources for ongoing follow-up. High staff turnover in the Burkinabè health system means that provider capacity gains are not automatically sustained without structured refresher and mentorship mechanisms.	Conduct quarterly supportive supervision visits to all screening sites, focused on positive feedback, problem-solving, and mentorship, not punitive inspection. Identify and recognise champion providers who achieve high screening and treatment completion rates and deploy them as mentors for lower-performing sites. Organise peer learning visits where providers from lower-performing sites observe best practices at higher-performing sites. Develop a standardised supervision checklist covering screening quality, treatment quality, data quality, supply management, and client satisfaction.
10. Male partner	Focus group discussions with midwives	Organise community dialogues with

Conclusion	Findings/Evidence	Suggestions for the future
opposition is a significant and modifiable barrier to women's access to screening and treatment, yet targeted male engagement remained limited in the project's community mobilisation activities.	identified male opposition as a recurring barrier: women reported needing permission from husbands to attend screening, and those without partner support were less likely to complete the cascade. Among men who attended sensitisation sessions, 76% reported subsequent discussions about cervical cancer at home. Some women faced explicit opposition to treatment. Yet male engagement activities reached only 1,006 men across the project period, a small fraction relative to the screening-eligible population.	male partners, religious leaders, and traditional leaders to address misconceptions and encourage support for cervical cancer screening. Identify and engage male champions, men whose wives were successfully screened and treated, to share testimonials and encourage peers. Offer couples counselling where both partners receive information about cervical cancer, screening, and treatment, supporting joint decision-making. Use radio, television, and social media to promote male engagement as a positive health behaviour, featuring male champions and success stories.
11. Provider adherence to protocols and quality of clinical decision-making are constrained by the absence of simple, accessible job aids and follow-up tools, particularly as staff turnover introduces new providers who were not part of the original training cohort.	Providers expressed strong confidence following training, but the complexity of the HPV screening algorithm, VAT eligibility criteria, and thermal ablation protocols creates risk of inconsistency, particularly for newer staff. DHIS2 Tracker data entry was found to be burdensome and error-prone. No standardised job aids were available at all sites. Follow-up systems relied on individual provider memory and initiative rather than structured tools.	Develop simplified job aids, laminated cards, posters, and mobile applications, covering the HPV screening algorithm (who to screen, how to screen, how to interpret results), the VAT algorithm (who is eligible for thermal ablation, who requires referral for LEEP or biopsy), and the thermal ablation procedure (step-by-step guide with photographs). Develop a standardised follow-up schedule specifying when to contact women, what to do when an appointment is missed, and troubleshooting guidance for common problems.

National policy integration: The project achieved important policy milestones. National guidelines for HPV screening and thermal ablation were finalized and validated in December 2024 following the establishment of the Technical Working Group for Cervical Cancer Elimination (GTT-ECCU) by ministerial decree in 2021. A comprehensive transition plan was developed in November 2023, and an extension plan in December 2023, both of which outlined pathways for national scale-up. Global Fund

CxCa-specific funding was secured to procure HPV tests for 20% of WLHIV in the country. However, implementation of these plans stalled due to Burkina Faso's ongoing security crisis, political instability under a military government that prioritizes security over health financing, and reduction of all development aid.

Evaluation conclusions: The SUCCESS project in Burkina Faso successfully demonstrated proof of concept for HPV-based screening and thermal ablation in a low-resource, fragile setting. The evidence generated, particularly on community-based self-sampling, high treatment rates, and women's strong preference for self-collection, provides a robust foundation for national scale-up. However, the project also revealed critical gaps in transition planning, sustainable financing, and health system readiness that must be addressed for cervical cancer elimination to become a reality for all Burkinabè women. The experience offers valuable lessons for other countries in similar contexts, particularly regarding the need for longer transition periods, early integration into national budgets, and contingency planning for fragile settings.

Headline conclusions and recommendations

1. The SUCCESS project successfully demonstrated HPV-based screening and thermal ablation in a fragile, low-resource setting, but HPV based screening services stopped at project closure. Call for action : Secure a dedicated CxCa budget line and activate the sustained government HPV test procurement, starting with WLHIV is possible.
2. Community-based self-sampling with active CHW follow-up is the highest-performing model. Call for action: When possible, adopt community self-sampling as the standard national model and integrate ASBCs into CxCa cascade management.
3. Laboratory turnaround time is the primary modifiable driver of loss to follow-up. Call for action: Pilot point-of-care HPV testing at high-volume sites to reduce the median delay from testing to result and potential treatment.
4. Gender barriers, particularly male partner opposition and WLHIV stigma require targeted, transformative strategies. Call for action: Scale male engagement activities and deploy WLHIV peer educators in cancer control programming.

1.1 INTRODUCTION

1.1.1 BACKGROUND

This country case study is part of a comprehensive global evaluation of Unitaid's portfolio of investments in accelerating cervical cancer (CxCa) elimination through secondary prevention during the 2019-2025 period. The evaluation has two specific objectives: (1) to assess the catalytic impact of Unitaid-supported programmes to accelerate CxCa elimination through secondary prevention, and (2) to synthesize actionable insights to shape impactful, scalable, and sustainable investments to accelerate progress towards the elimination of CxCa.¹

The evaluation employs a theory-based realist evaluation approach, testing six hypotheses related to community delivery and self-sampling, integrated service delivery, technology introduction, proof of concept and national adoption, market shaping, and South-South learning. It examines 13 evaluation questions organized around six learning themes: service delivery models and commodity supply, continuum of care, Leave No One Behind (LNOB)/equity/gender barriers, programming at scale, sustainable financing, South-South learning.²

The Burkina Faso case study focuses on understanding the extent to which the Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy (SUCCESS) project in Burkina Faso, part of the Unitaid CxCa portfolio, achieved its intended outcomes and generated learning on market shaping, cost drivers, financing approaches, factors that drive scale-up of CxCa services, linkage of screening to treatment, commodity distribution and utilization, and engagement with women and communities affected by cancer.³

1.1.2 CONTEXT

CxCa represents a major public health challenge in Burkina Faso. According to GLOBOCAN 2022, Burkina Faso recorded 988 new CxCa cases and 775 deaths.⁴ The disease is the second most common cancer among women, accounting for 11% of all female cancers, after breast cancer (15.3%) in the country. The prevalence of Human Papillomavirus (HPV) infection ranges from 20% to 50%, depending on the populations studied, with a strong predominance of HPV genotypes 16 and 18, which are responsible for most invasive CxCas.⁵ CxCa is particularly high among women living with HIV (WLHIV) - a vulnerable population representing between 11% and 13% of CxCa patients in hospital-based series⁶ in Burkina Faso. Implementation research in Burkina Faso confirmed that WLHIV face a six times higher rate of developing pre-cancerous lesions compared to HIV-negative women⁷. HPV positivity among

¹ Inception Report Unitaid CxCa eval'Unitaid

² Ibid.

³ Ibid.

⁴ Filho AM, Laversanne M, Ferlay J, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. *Int J Cancer* 2025; 156: 1336–1346.

⁵ Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. *Ann Res Rev Biol* 2024; 39: 135–146

⁶ Burkina/Papillomavirus humain (HPV) et cancers associés : « Toute personne sexuellement active est potentiellement exposée », selon Dr Ina A. Traoré/Minoungou. *Banfora.org- Amitiés Saintonge Banfora*, <https://www.banfora.org/2026/01/09/burkina-papillomavirus-humain-hpv-et-cancers-associes-toute-personne-sexuellement-active-est-potentiellement-exposee-selon-dr-ina-a-traore-minoungou/> (2026).

⁷ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

WLHIV in the SUCCESS project was 34.9%, compared to 19.3% in the general population, a nearly two-fold difference.⁸ For WLHIV, this elevated risk is compounded by barriers, including stigma, limited access to healthcare, and competing health priorities.⁹ Indeed, Burkina Faso is one of the world's least developed countries, ranking 183rd out of 189 countries on the Human Development Index (HDI) with a score of 0.42 in 2017. The SUCCESS project implementation in Burkina Faso presented multiple structural challenges that directly shaped project interventions and outcomes. Extreme poverty (national poverty rate 40.1%) constrained women's ability to pay for services and transportation, necessitating the free-of-charge service model.¹⁰

The health system is organized into 13 health regions, 45 provinces, and 70 health districts, with a three-tier structure: primary level (Health and Social Promotion Centers (CSPS)), secondary level (Medical Centers with Surgical Units (CMA) and Regional Hospital Centers (CHR)), and tertiary level (University Hospital Centers (CHU)). However, the system faces chronic challenges including insufficient human resources, inadequate infrastructure, limited equipment, and weak supply chains.¹¹

Prior to the SUCCESS project, CxCa screening in Burkina Faso relied primarily on visual inspection with acetic acid (VIA) and cytology (Pap smear), with very low coverage.^{12 13} Treatment of precancerous lesions was limited to cryotherapy and the loop electrosurgical excision procedure (LEEP), which were available only at tertiary facilities. No HPV-based screening was available, and thermal ablation (TA) technology had not been introduced.¹⁴

In 2019, the World Health Organization launched the Global Strategy to Accelerate the Elimination of Cervical Cancer, with targets of 90% HPV vaccination coverage for girls by age 15, 70% screening coverage for women using a high-performance test by age 35 and again by age 45, and 90% treatment for women identified with cervical disease.^{15 16} Burkina Faso committed to this vision through several policy measures, including the provision of free screening with Visual Inspection with Acetic Acid (VIA) and treatment for precancerous lesions, the introduction of HPV vaccination for girls aged 9-14 years, and free radiotherapy.^{17 18} However, implementation was constrained by limited resources, weak coordination, and the absence of national guidelines for HPV screening and thermal ablation.¹⁹

The Ministry of Health (MoH) recognized that achieving the target of the global elimination strategy would require innovative approaches, including the introduction of HPV primary screening, thermal

⁸ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

⁹ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

¹⁰ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

¹¹ Ibid.

¹² SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

¹³ Plan de transition projet SUCCESS, Novembre 2023

¹⁴ Ibid.

¹⁵ 90% of women with precancer treated, and 90% of women with invasive cancer managed

¹⁶ SUCCESS 2023 Annual Report (Narrative), March 2024

¹⁷ Plan de transition projet SUCCESS, Novembre 2023

¹⁸ Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: World Health Organization; 2020.

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¹⁹ Plan de transition projet SUCCESS, Novembre 2023

ablation treatment, community-based service delivery, and integration with existing HIV and reproductive health services.^{20 21} The SUCCESS project was designed to support Burkina Faso in testing and scaling up these innovations.

1.1.3 UNITAID INVESTMENTS IN THE COUNTRY

The SUCCESS project was a multi-country initiative funded by Unitaid and implemented by Expertise France (lead), Jhpiego (technical partner), and the Union for International Cancer Control (civil society engagement) from December 2019 to December 2025. The project operated in four countries: Burkina Faso, Côte d'Ivoire, Guatemala, and the Philippines.²² Total project funding was \$24.3 million globally.²³ In Burkina Faso, the project was implemented in partnership with the MoH's Direction de la Prévention et du Contrôle des Maladies non transmissibles (DPCM), with technical support from the Direction des Laboratoires de Biologie Médicale (DLBM), the National HPV Reference Laboratory (LNR-HPV), and the National Tuberculosis Control Programme.²⁴

The SUCCESS project had an overarching impact goal of reducing morbidity and mortality due to CxCa, with an outcome of improving women's access to evidence-based, quality-assured secondary prevention services for CxCa by catalyzing the market and supporting the introduction of new screening and treatment tools.. The SUCCESS project had four main outputs^{25 26}

- Output 1: Evidence generated on the feasibility, appropriateness, acceptability, and cost of introducing HPV testing and thermal ablation
- Output 2: Community engagement and demand generation for CxCa screening and precancer treatment created
- Output 3: Integrated service delivery models for screening and linkage to treatment, adapted to the country context identified and implemented
- Output 4: Conditions for scale-up of secondary prevention of CxCa created

In Burkina Faso, the project operated across 21 primary sites and 12 secondary sites in six of the country's 13 health regions.^{27 28} The six regions comprise: Centre, Hauts-Bassins, Centre-Ouest, Centre-Sud, Centre-Est, and Boucle du Mouhoun.²⁹ Sites were selected based on several criteria: level of services provided (primary, secondary, tertiary), rural/urban distribution, regional representation, existing capacity for HPV testing (Polymerase Chain Reaction (PCR) platforms for Tuberculosis (TB), HIV, or COVID-19), and presence of HIV services for reaching WLHIV.^{30 31} The 21 sites included

²⁰ Ibid.

²¹ Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

²² SUCCESS 2023 Annual Report (Narrative), March 2024

²³ SUCCESS 2024 Annual Report (Narrative), 2025

²⁴ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

²⁵ SUCCESS 2023 Annual Report (Narrative), March 2024

²⁶ Plan de transition projet SUCCESS, Novembre 2023

²⁷ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

²⁸ Plan de transition projet SUCCESS, Novembre 2023

²⁹ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

³⁰ Ibid.

³¹ Unitaid Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

university hospital centers,³² regional hospital centers,³³ medical centers with surgical units,³⁴ urban medical centers³⁵, community health centers,³⁶ military facilities,³⁷ and civil society organization sites.³⁸

³⁹

The project targeted two main populations:

- General population women aged 25-49 years: Women in this age group were eligible for CxCa screening, reached through reproductive health services, family planning clinics, and community outreach.^{40 41}
- WLHIV aged 25-49 years: This high-risk population was reached through HIV care and treatment services, including Antiretroviral Treatment (ART) clinics and civil society organizations supporting WLHIV.^{42 43}

The project aimed to screen 70% of the target population in project catchment areas and treat 90% of women with precancerous lesions and introduced an integrated package of innovations^{44 45 46}

- **Screening:** HPV DNA testing as the primary screening method using GeneXpert HPV (Cepheid), Abbott RealTime High Risk HPV, and Roche Cobas 4800 HPV platforms. Self-collection of vaginal samples as the preferred method and provider collection as an alternative option. Integration of HPV testing into existing PCR laboratory platforms used for TB, HIV, and COVID-19
- **Triage and Treatment:** Visual inspection with acetic acid (VIA) for triage of HPV-positive women - Visual assessment for treatment (VAT) eligibility determination - Thermal ablation using Liger and WISAP devices for eligible women - LEEP (loop electrosurgical excision procedure) for women with significant lesions requiring excisional treatment - Same-day or rapid treatment after triage to minimize loss to follow-up.
- **Health System Strengthening and deployment of devices:** Training of 420 health workers (~20 per site) on HPV screening, VIA, and thermal ablation - Deployment of 61 thermal ablation devices (12 Liger, 49 WISAP) and 3 LEEP devices - Establishment of HPV testing at 17 laboratories - Integration of sample transport into the National Integrated Biological Sample Transport System (SITEB) via La Poste Burkina - Piloting of District Health Information System 2 (DHIS2) Tracker for CxCa data at 3 sites.
- **Demand Generation:** Training of 200 community actors (community health agents, psychosocial counselors, civil society organization staff) on CxCa awareness - Development and

³² (CHU Yalgado Ouedraogo, CHU Bogodogo, CHU Sanou Souro),

³³ (CHR Banfora, CHR Koudougou, CHR Tenkodogo),

³⁴ CMA Pissy, CMA Dafra, CMA Do, CMA Kossodo, CMA Orodara, CMA Paul VI, CMA Schiphra, CMA Zorgho, CMA Hounde),

³⁵ (CMU Banfora),

³⁶ CSPA Sig-Nonghin, CSPA Bissighin),

³⁷ CM Camp Lamizana),

³⁸ (Alavie Medical Center, Association Appui Solidarité, Espoir Vie, Revs Plus

³⁹ Plan de transition projet SUCCESS, Novembre 2023

⁴⁰ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁴¹ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

⁴² SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁴³ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

⁴⁴ Ibid.

⁴⁵ Plan de transition projet SUCCESS, Novembre 2023

⁴⁶ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

distribution of information, education, and communication materials in French and local languages - Engagement of community leaders, religious leaders, and male partners - Small grants to 10 local civil society organizations for community mobilization.

- **Policy and Advocacy:** Establishment of the Technical Working Group for Cervical Cancer Elimination (GTT-ECCU) by ministerial decree in 2021. Development and validation of national guidelines for HPV screening and thermal ablation. Costing and planning for national scale-up using the C4P (Cervical Cancer Prevention and Control Costing) tool. Advocacy for inclusion of CxCa in Global Fund (GF) proposals.

The project was implemented in two main phases:

Phase 1 (December 2019 - November 2023, extended to August 2024): Facility-based HPV screening and treatment at 21 primary sites, with implementation research to assess feasibility, acceptability, and cost. This phase screened 38,348 women and treated 2,151 women with precancerous lesions.⁴⁷

⁴⁸

Phase 2 (October 2024 - December 2025): Community-based self-sampling (CBSS) implementation research to test two models: (1) door-to-door self-sampling by community health workers, and (2) self-sampling facilitated by civil society organizations and community-based organizations. This phase aimed to enroll 3,356 women, with 3,433 enrolled by the end of the project.⁴⁹

The SUCCESS project in Burkina Faso was part of the global \$24.3 million UNITAID investment. Country-specific budget details were not fully disclosed in available documents, but expenditure patterns showed: 75% overall budget execution in 2024, with Output 4 (conditions for scale-up) exceeding 90% execution. Key expenditure categories included health commodities (HPV tests, thermal ablation devices, consumables), human resources (project staff, health worker training), technical assistance (consultants, supervision), and operational costs (travel, meetings, information, education, and communication materials).⁵⁰

HPV tests were procured through UNICEF, with 40,000 tests procured for Burkina Faso over the project period. Thermal ablation devices were procured directly from manufacturers (Liger and WISAP) or received as donations from Clinton Health Access Initiative (CHAI). Unit costs were: GeneXpert HPV \$100.39 per kit of 10 tests, Abbott HPV \$538 per pack of 250 tests, Roche Cobas \$6,526.50 per pack of 960 tests, Liger thermal ablation device \$910 per unit, WISAP thermal ablation device \$1,197 per unit, and Liger LEEP device \$1,450 per unit.⁵¹

⁴⁷ Plan de transition projet SUCCESS, Novembre 2023

⁴⁸ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

⁴⁹ Ibid.

⁵⁰ SUCCESS 2024 Annual Report (Narrative), 2025

⁵¹ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

1.2 OBJECTIVES & METHODS OF THE COUNTRY CASE STUDY

1.2.1 OBJECTIVES, HYPOTHESES, AND LEARNING THEMES

The two specific objectives of the global evaluation are to:

1. Assess the catalytic impact of Unitaïd-supported programmes to accelerate CxCa elimination through secondary prevention in the 2019–2025 period.
2. Synthesize actionable insights to shape impactful, scalable, and sustainable investments to accelerate progress towards the elimination of CxCa.

The case study seeks to understand the extent to which interventions have achieved their intended outcomes in Burkina Faso. Secondly, the evaluation case study covers learning at the country level. This covers market shaping, including cost drivers of interventions, financing approaches, and market dynamics. But also factors that drive scale-up of CxCa services, including linking of screening to treatment, varying program maturity levels across countries, commodity distribution and utilization, gaps in real-world data, and engagement with women and communities affected by cancer.

Table 1 highlights the evaluation questions and related learning themes, while Table 2 provides an overview of 6 hypotheses tested by the case study.

Table 1: Evaluation questions and learning themes

Key evaluation questions	Specific evaluation questions	Links with Learning themes
1. Is the cervical cancer prevention portfolio responsive to needs and contexts?	EQ1.1 Did the cervical cancer programmes respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?	n/a
	EQ1.2. How did Unitaïd's cervical cancer interventions interact with those of other partners and broader systems?	n/a
	EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in cervical cancer screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?	Leave No One Behind
2. Did the portfolio achieve intended outcomes?	EQ 2.1 To what extent and through what mechanisms did Unitaïd's interventions achieve their intended results?	Service delivery models & commodity supply; Continuum of care; Programming at scale

Key evaluation questions	Specific evaluation questions	Links with Learning themes
	EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?	Continuum of care Service delivery models and commodity supply
	EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-collection & provider, AI-AVE and TA) and what barriers have they faced in accessing or using them?	Service delivery models and commodity supply Continuum of care, Leave No One Behind
	EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of cervical cancer screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?	Service delivery models and commodity supply Programming at scale
3. Are services and tools adopted and integrated in global and national strategies?	EQ3.1 Are the gains from the Unitaïd supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd's contributions beyond the project period?	Programming at scale, Sustainable financing Also: Service delivery models and commodity supply
	EQ3.2 Which financing approaches, across public, private, and donor sources, are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?	Sustainable financing Programming at scale; Service delivery models and commodity supply
	EQ3.3 Were best practices from early-adopter countries applied to accelerate cervical cancer programming in other countries?	South-South learning Also: Service delivery models and commodity supply; Continuum of care; Programming at scale; Leave No One Behind
4. Is the portfolio implemented	EQ4.1 How timely, cost-efficient, and cost-effective was implementation (considering both allocative efficiency and technical efficiency) and what factors have been considered to	Service delivery models and

Key evaluation questions	Specific evaluation questions	Links with Learning themes
efficiently?	ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts? ⁵²	commodity supply
	EQ 4.2. Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments?	South-South learning
	EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?	

Table 2: Summary of evaluation hypotheses and linkages to EQs and learning themes

Hypothesis title	Hypothesis in brief	Key EQs	Learning themes
H1: Community delivery & self-sampling	Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	EQ2.1, 2.3, 1.3	1, 3
H2: Integrated service delivery & same-day treat	Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	EQ2.1, 2.2, 2.3	1, 2
H3: Technology introduction & HW capability	AI-AVE and HPV DNA testing increase HW diagnostic confidence, improving continuity of care	EQ2.1, 2.3	1
H4: Proof of concept & national adoption	Proof of concept from 'champion countries' triggers national government buy-in, leading to policy and budget inclusion	EQ2.1, 3.1, 3.3	4
H5: Market shaping & price reduction	Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	EQ2.4, 3.1, 3.2	1, 5
H6: South-South learning & diffusion	Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	EQ3.3, 4.2	6

⁵² Full value for money exercise was outside the scope of this evaluation.

1.2.2 METHODS AND LIMITATIONS

Data collection methods

This case study employed multiple data collection methods to triangulate findings and ensure comprehensive coverage of the evaluation questions:

Document review: A total of 17 documents were reviewed, including project annual reports, implementation research reports, country operational plans (COPs), transition and extension plans, capitalization reports, screening and treatment data files, hypothesis findings, interview transcripts, focus group discussion transcripts, procurement reports, market shaping data, costing reports, and policy documents. Documents covered the period from December 2019 to April 2026.

Key informant interviews (KIIs): In-depth interviews were conducted with 10 individual key stakeholders. Respondents were purposively selected to ensure representation across: (a) institutional levels (national MoH policy level (DPCM), regional health directorate, and facility level); (b) facility types (primary health centers (CSPS), secondary-level CMAs, and tertiary-level CHUs); (c) populations served (sites predominantly serving the general population and sites integrating CxCa into HIV care); (d) professional roles (clinical providers (midwives, nurses), CSO representatives, and project implementation staff); and (e) geographic locations (Ouagadougou, Bobo-Dioulasso, Banfora). Selection was coordinated with Jhpiego project focal point to identify individuals with direct operational knowledge of SUCCESS implementation.

including MoH officials, health facility managers and providers at SUCCESS sites, civil society organization representatives, and project implementation staff.

Focus group discussions (FGDs): 10 FGDs with participation of a total of 54 individuals were conducted with: Women who participated in screening and treatment services (n=20), Community health workers (n=15), and Midwives (n=19).

Annex 1 provides more details of KIIs and FGDs undertaken for this case study.

Field visits and site observations: The evaluation team conducted field visits to eight SUCCESS project implementation sites to interview providers and clients and assess for sustained implementation. Sites were purposively selected based on four criteria: (1) facility level (ensuring representation of primary, secondary, and tertiary levels); (2) population served (including facilities serving the general population and facilities providing integrated CxCa-HIV services for WLHIV); (3) geographic coverage (sites in Ouagadougou, Bobo-Dioulasso the two cities with the highest concentration of SUCCESS sites and Banfora); and (4) accessibility (sites within areas accessible given the limited time of evaluation).

Data analysis methods

Quantitative data analysis: Secondary analysis of project monitoring data and implementation research data was conducted. Key datasets included: screening and treatment cascade data, HPV positivity rates by population group, treatment rates and types, time from screening to results and treatment, VAT proportion by site, loss to follow-up rates, 12-month rescreening rates, and commodity

procurement and utilization data.^{53 54}

Content analysis: Qualitative data from interviews, focus groups, and documents were analyzed using thematic content analysis. Key themes were identified deductively based on the evaluation questions and hypotheses, and inductively from the data. Quotes were extracted to illustrate key findings and provide a voice to stakeholders.

Triangulation: Findings from different data sources (documents, interviews, quantitative data) were triangulated to validate conclusions and identify areas of convergence and divergence. For example, high treatment rates reported in project data were corroborated by provider interviews and implementation research findings.

Trend analysis: Quantitative data were analyzed to identify trends over time, such as increases in self-collection rates, changes in screening volumes, and variations in treatment delays across sites and phases.

Comparative analysis: Burkina Faso’s findings were compared with those of other SUCCESS countries (Côte d’Ivoire, Guatemala, and the Philippines) where relevant, and with global evidence on HPV screening and thermal ablation.

Hypothesis testing: For each of the six hypotheses, evidence was systematically compiled from all data sources using a Context-Mechanism-Outcome (CMO) framework. Findings were assessed against the hypothesis predictions to determine the extent of confirmation or refutation.

Limitations and mitigation

The case study faced several limitations which were mitigated to deliver a robust case study (See Table 3).

Table 3: Limitations and mitigation strategies

Limitation	Mitigation
The evaluation was conducted after project completion, limiting ability to observe implementation in real-time and potentially introducing recall bias in interviews.	Triangulation of multiple data sources (documents, interviews, quantitative data) were performed to validate findings, e.g. using project reports and monitoring data to supplement retrospective interviews.
While security constraints and time limitations prevented visits to all 21 SUCCESS sites, the eight sites visited (38% of all implementation sites) constituted a robust sample enabling meaningful comparisons across facility types, geographic areas, and populations served. This coverage may	A diverse sample of sites (primary/tertiary, general population/WLHIV-focused) were selected to capture range of experiences. Field visit data were supplemented with comprehensive document review and remote interviews.

⁵³ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁵⁴ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

nonetheless miss site-specific variations in implementation quality or sustainability at unvisited facilities.	
Some interviews and documents were conducted in French, requiring translation to English, with potential for nuance loss. Local language terms (e.g. Dioula, Mooré) were used in community interactions.	A multilingual consultant was engaged for data collection analysis and review.
Post-project follow-up data on sustained service delivery and long-term outcomes were limited due to service disruption after project end.	Available data from project period and early post-project period were used. Interviews with providers and MoH officials to understand post-project situation. Acknowledgment of data gaps in findings.
Interview participants were primarily suggested by JHPIEGHO (technical coordinator of the SUCCESS project) and concerned those still engaged with cervical cancer programming, potentially missing perspectives of those who disengaged or were lost to follow-up.	Despite engaging diverse stakeholders' perspectives (MoH, health service providers, CSOs, and women), this potential selection bias should be acknowledged and findings interpreted accordingly.
Due to time constraint, we could not assess service delivery and site readiness	During evaluation site visits, test kits were absent at all visited sites. Thermocoagulation devices, tablets, and refrigerators donated as part of the SUCCESS project remained physically present at facilities; some thermocoagulation devices were reported to still be in use for treating precancerous lesions detected through VIA, which has continued as the primary screening method post-project.

1.3 FINDINGS AND LESSONS

1.3.1 RESPONSIVENESS OF THE PROGRAMME TO NEEDS AND CONTEXTS (EQ 1)

EQ1.1 Did the CxCa programmes respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?

The SUCCESS project strongly aligned with Burkina Faso's national CxCa elimination priorities⁵⁵ and addressed critical gaps in screening and treatment capacity, but design assumptions underestimated the challenges of laboratory turnaround times, geographic coverage, and transition planning in a fragile, resource-constrained setting.

The SUCCESS project responded directly to Burkina Faso's commitment to the World Health Organization (WHO) 90-70-90 CxCa elimination targets and the MoH's recognition that achieving these targets would require innovative approaches beyond VIA and cytology.^{56 57} The introduction of HPV primary screening, thermal ablation treatment, and CBSS addressed documented gaps in the national CxCa program.⁵⁸ The project's focus on WLHIV was particularly responsive to the elevated burden in this population, with HPV positivity of 34.9% among WLHIV compared to 19.3% in the general population.⁵⁹

Despite these mismatches, the project demonstrated strong responsiveness in several areas:

- **Integration with existing services:** The project successfully integrated HPV screening into HIV care, family planning, and maternal health services, reaching women through familiar care settings⁶⁰. This integration was highly responsive to the need for efficient, client-centered service delivery.
- **Community engagement:** The project's community mobilization and demand-generation activities, including training 200 community actors and providing small grants to 10 local civil society organisations (CSOs), were responsive to the need for community awareness and trust-building. Women and community leaders expressed strong appreciation for these efforts.⁶¹
- **Self-collection option:** The overwhelming preference for self-collection (95.6% of women) demonstrated that this innovation was highly responsive to women's preferences and comfort.^{62 6364} Women found self-collection less invasive, more private, and more convenient than provider collection.^{65 66 67}

⁵⁵ Former MoH KII, Former CSO lead coordinator KII, KII MoH, KII JHPIEGO

⁵⁶ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁵⁷ Plan d'extension du projet SUCCESS par le MSHP, Décembre 2023

⁵⁸ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁵⁹ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

⁶⁰ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁶¹ CMA Do CHW FGD

⁶² Filho AM, Laversanne M, Ferlay J, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. *Intl Journal of Cancer* 2025; 156: 1336–1346.

⁶³ Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. *Ann Res Rev Biol* 2024; 39: 135–146

⁶⁴ All KIIs and FGDs

⁶⁵ Ibid.

⁶⁶ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

⁶⁷ Beneficiaries FGDs, CMA Do, Alavie Medical Center, CHR Banfora

However, several design assumptions proved mismatched with country realities:

- **Laboratory capacity and turnaround times:** The project assumed that leveraging existing PCR platforms (GeneXpert, Abbott, Roche Cobas) used for TB, HIV, and COVID-19 testing would enable rapid HPV test processing.^{68 69} However, laboratory capacity was insufficient to handle the volume of HPV samples, and many sites lacked on-site GeneXpert machines, necessitating transport of samples to distant laboratories. During phase 1 (2021-2023) the median time from sample collection to VIA/VAT was 28 days (IQR: 18-47 days), far longer than the anticipated turnaround⁷⁰. One gynaecologist explained: *“The GeneXpert device is not available at all sites. Samples must be sent elsewhere, which causes long wait times, sometimes weeks or months”*. A midwife noted, *“We don’t have the GeneXpert machine here. We had to send samples to another site, and it takes a very long time for results to come back”*.⁷¹
- **Geographic coverage:** The project’s coverage of 6 of 13 health regions left significant geographic inequities, with rural and northern regions particularly underserved.⁷² This limited coverage was partly due to security constraints, as Burkina Faso experienced escalating insecurity and political instability during the project period.⁷³ The design did not adequately account for the impact of fragility (low technical expertise) on implementation and scale-up.
- **Transition and sustainability planning:** The project design assumed a smooth transition to government ownership and financing by project end.^{74 75} However, the abrupt project termination without an adequate transition phase led to immediate service disruption. HPV testing collapsed entirely at all sites post-project, while thermal ablation continued at only some facilities. A former MoH KII stated, *“After the project ended, HPV testing stopped completely. We don’t have the resources to continue.”*^{76 77} The transition plan, developed in November 2023, and the extension plan, in December 2023, outlined pathways for scale-up, but implementation stalled due to a lack of government funding and the ongoing security crisis.^{78 79 80 81}
- **Cost assumptions:** The project provided free HPV testing and treatment of precancerous lesions during implementation but did not adequately anticipate the cost barriers that would emerge post-project and impact the sustainability. In private facilities, HPV tests cost 15,000-50,000 Franc de la Communauté Financière Africaine (FCFA) (\$25–\$83 USD), making them unaffordable for most women. A former MoH staff explained: *“The cost is a major barrier. During the project, everything was free. Now, women cannot afford the tests”*.

⁶⁸ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁶⁹ SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

⁷⁰ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁷¹ KII CMA Schiphra

⁷² SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

⁷³ SUCCESS Country Operational Plan Burkina Faso (contextual information on security and political situation), February 2021

⁷⁴ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁷⁵ Plan d’extension du projet SUCCESS par le MSHF, Décembre 2023

⁷⁶ Plan de transition projet SUCCESS, Novembre 2023

⁷⁷ Midwives FGD, and KII: CMA Do, Banfora, Plissy, University Hospital Sourou Sanou, Alavie Medical Center KII

⁷⁸ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁷⁹ Plan d’extension du projet SUCCESS par le MSHF, Décembre 2023

⁸⁰ SUCCESS Country Operational Plan Burkina Faso (contextual information on security and political situation), February 2021

⁸¹ Former MoH KII, Former CSO lead coordinator KII

EQ1.2. How did Unitaids' CxCa interventions interact with those of other partners and broader systems.

The SUCCESS project collaborated effectively with key national partners and systems, particularly the MoH, national laboratory program, HIV programme, and civil society organizations, but coordination with other donors and integration into national health information systems and decentralization remained incomplete.

The SUCCESS project established strong partnerships with national institutions:

MoH: The project worked closely with the DPCM as the primary government counterpart. The establishment of the GTT-ECCU by ministerial decree in 2021 provided a formal coordination mechanism, with semi-annual meetings to review progress and provide recommendations. The GTT-ECCU included representatives from DPCM, DLBM, Direction de la Prévention par la Vaccination, HIV and TB programmes, WHO, civil society, and professional associations.⁸²

National laboratory system: The project collaborated with the DLBM and the LNR-HPV to establish HPV testing capacity. Training of 239 laboratory technicians from 17 laboratories on three HPV testing platforms (Roche, Cepheid, Abbott) and 15 pharmacy staff on HPV commodity management strengthened the national laboratory system. The project also contributed to integrating HPV sample transportation into the national integrated biological sample transport system (SITEB). SITEB, funded by DAVYVCAS international (an NGO), consists of the transport of biological samples via the national postal system from peripheral health centers to the nine national referral labs for treatment.

HIV programme: The project worked with the HIV programme⁸³ and CSOs supporting WLHIV to reach WLHIV. Integration of CxCa screening into HIV care settings (ART clinics, community-based WLHIV support organizations) facilitated access for this high-risk population.⁸⁴ A KI at Alavie Medical Center, which serves WLHIV, noted: *"The community structure's familiarity with WLHIV women facilitated uptake"*.⁸⁵

Civil society organizations: The project engaged 10 local CSOs through small grants for community mobilization, reaching 6,865 women and 1,006 men through 155 educational talks and 26 discussion groups. CSOs played a critical role in demand generation, particularly for reaching WLHIV and marginalized populations. The Coalition Burkinabè contre le Cancer (COBUCAN) was a key advocacy partner.⁸⁶

However, coordination gaps were also evident in several areas:

Donor coordination: Limited donor coordination primarily affected sustainability rather than implementation outcomes. During the implementation period (2020–2025), coordination with WHO and UNICEF was sufficient to support procurement, technical guidance, and clinical training. However, the absence of structured and timely coordination with major donors like Global Fund on transition planning meant that cervical cancer allocation was not aligned with SUCCESS infrastructure and timelines, contributing to the post-project gap in HPV test availability.⁸⁷ This resulted in missed opportunities for synergy and potential duplication. For example, an MSF-founded HPV testing project is currently underway in new health facilities in Burkina Faso, but there is no evidence that this project

⁸² National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁸³ Programme National de Lutte contre le SIDA

⁸⁴ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

⁸⁵ CBO Alavie Medical Center KI

⁸⁶ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁸⁷ Ibid.

implementation benefited from lessons learned from SUCCESS. In some SUCCESS sites, women who request self-sampling are currently being directed to the MSF implementation sites. The project successfully advocated for inclusion of HPV tests in the GF Grant cycle 7 (GC7) proposal, but broader donor coordination mechanisms were weak.⁸⁸

Health information systems: Integration of CxCa data into the national health information system (DHIS2) was incomplete. The project piloted DHIS2 Tracker for CxCa at 3 sites, but full national rollout did not occur with challenges noted concerning interoperability and internet connection, which limited the MoH's ability to monitor CxCa services nationally and plan for scale-up.^{89 90}

Primary care level: While the project included one primary health center, broader integration into the primary health care system did not occur which limited demonstrating feasibility at the lowest health system level. Most screening and treatment remained concentrated at secondary and tertiary facilities, limiting accessibility for rural populations.

EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in CxCa screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?

Gender norms significantly influenced women's access to and uptake of CxCa screening, with male partner support emerging as a critical facilitator and lack of male engagement as a barrier. The project addressed practical gender barriers (through male partner sensitization, self-collection to reduce discomfort with male providers, and engagement of female community health workers). However, it did not implement a gender-transformative approach. Structural barriers such as male partner decision-making power, WLHIV stigma, and limited bodily autonomy require more intensive and targeted strategies in future programming.

While the project addressed some gender considerations, a comprehensive gender analysis and a gender-transformative approach were not evident in the project's design or implementation. The project focused primarily on practical gender needs (e.g., self-collection to reduce discomfort) rather than strategic gender interests (e.g., challenging patriarchal norms that limit women's health autonomy). Deeper engagement with gender norms around women's bodily autonomy, sexuality, and reproductive health decision-making could have strengthened the project's impact. Gender norms and relations influenced CxCa screening and treatment in multiple ways:

Women's autonomy and decision-making: Women's limited autonomy in health decision-making was a structural barrier. In Burkina Faso's patriarchal context, women often require male permission for health care seeking, particularly for reproductive health services⁹¹. The project's provision of free services partially mitigated financial barriers but did not fully address women's limited decision-making power.

⁸⁸ SUCCESS 2024 Annual Report (Narrative), 2025

⁸⁹ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

⁹⁰ KII MoH, KII Jhpiego

⁹¹ Burkina/Papillomavirus humain (HPV) et cancers associés : « Toute personne sexuellement active est potentiellement exposée », selon Dr Ina A. Traoré/Minoungou. Banfora.org- Amitiés Saintonge Banfora, <https://www.banfora.org/2026/01/09/burkina-papillomavirus-humain-hpv-et-cancers-associes-toute-personne-sexuellement-active-est-potentiellement-exposee-selon-dr-ina-a-traore-minoungou/> (2026).

Male partner support as facilitator: Male partner support was identified as a critical facilitator of women's screening uptake and treatment completion. Among men who attended sensitization sessions, 76% reported having discussions about CxCa at home,⁹² and women with supportive male partners were more likely to attend initial screening appointments. One male partner interviewed stated: "I accompanied my wife to the hospital and encouraged her to get screened. It's important for her health and our family."⁹³ Conversely, some women reported needing explicit permission from husbands to attend screening, and those without partner support were less likely to present at facilities: "Some husbands don't understand why we need to go for screening. They think it's a waste of time or money".⁹⁴

For treatment specifically, provider evidence suggests that male partner accompaniment was sometimes required: "There are also women who had problems with their husbands regarding treatment... we are often obliged to bring the husbands and we explain".⁹⁵ Women whose partners were actively supportive were more likely to complete the full screening-to-treatment cascade.

Discomfort with male providers: Gender dynamics in provider-client interactions influenced women's comfort and uptake. Some women expressed discomfort with male providers performing pelvic examinations.^{96 97} The ability to self-collect reduced discomfort with pelvic examination, particularly with male providers, and gave women a sense of control over the process. Women in focus groups stated: "*Self-collection is better because we don't have to undress in front of a male doctor*".⁹⁸ The project's emphasis on self-collection as the preferred method (95.6% uptake) was highly responsive to this gender consideration.^{99 100} A participant in a FGD noted "*I was afraid that they would make me spread out on the table and there are many midwives... she made me understand that no, that this time, it wasn't that, so it's me myself who has to collect the sample... many women joined because they self-collect. It's themselves who will do the sampling. Because there are many who*

are like me, I'm talking about the gun [speculum] that will be inserted. In any case, there are many of them who don't like that like me."¹⁰¹

Female community health workers: The project's engagement of female community health workers and peer educators was responsive to gender norms. Women were more comfortable discussing CxCa and receiving health education from female community actors.^{102 103} A community-based organization (CBO) KII noted: "*Women trusted female CHWs and mediators who went into communities and courtyards to sensitize and screen.*"^{104 105}

⁹² Ibid.

⁹³ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

⁹⁴ CMA Do Midwives FGD

⁹⁵ CHU Sourou Sanou Bobo Dioulasso Midwives FGD

⁹⁶ Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. Ann Res Rev Biol 2024; 39: 135–146

⁹⁷ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

⁹⁸ Ibid.

⁹⁹ Filho AM, Laversanne M, Ferlay J, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. Intl Journal of Cancer 2025; 156: 1336–1346.

¹⁰⁰ Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. Ann Res Rev Biol 2024; 39: 135–146

¹⁰¹ CMA Do Beneficiaries FGD

¹⁰² Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. Ann Res Rev Biol 2024; 39: 135–146

¹⁰³ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

¹⁰⁴ Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. Ann Res Rev Biol 2024; 39: 135–146

¹⁰⁵ CBO Alavie Medical Center KII

Gender-based violence and stigma: While not extensively documented in available data, gender-based violence and stigma related to reproductive health were implicit barriers. A KII with a physician at the HIV clinic¹⁰⁶ noted that women living with HIV feared being identified as HIV-positive if they attended CxCa screening in general clinic settings, explaining why integrated HIV-CxCa services are preferred by WLHIV. WLHIV faced compounded stigma related to both HIV and CxCa, affecting their willingness to seek screening.¹⁰⁷ The project’s integration of CxCa screening into HIV care settings helped reduce this stigma by normalizing screening as part of routine HIV care.

Workforce gender dynamics: The health workforce in Burkina Faso includes both male and female providers, but gender dynamics in training and service delivery were not explicitly addressed in project design. The project trained 420 health workers, but gender disaggregation of trainees was not reported. Ensuring adequate numbers of female providers, particularly for VIA/VAT and thermal ablation, would have been responsive to women’s preferences.

1.3.2 KEY ACHIEVEMENTS AND RESULTS OF THE UNITAID SUPPORTED ACTIVITIES (EQ2)

EQ 2.1 To what extent and through what mechanisms did Unitaids interventions achieve their intended results?

As shown in the table below, the SUCCESS project achieved exceptional results in screening coverage, treatment rates, and self-collection uptake, in some cases exceeding logframe targets (see Table 4). Key mechanisms of success included integration into existing services, self-collection and free services to reduce barriers, thermal ablation to enable same-day treatment, community mobilization to generate demand, and health worker training to build capacity. However, achievements were constrained by loss to follow up between screening and test results and between test results and VIA (see more details in the next section).

Table 4: SUCCESS Project Burkina Faso Overall achievement^{108 109 110}

Domain	Key Metric	Target	Actual	% Achievement
Screening, GenPop (Phase I)	Women screened with HPV or VIA test	33 411	32 899 (22,478 with HPV test)	98.5%

¹⁰⁶ CBO Alavie Medical Center KII
¹⁰⁷ Unitaids Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024
¹⁰⁸ BaseRapportsSUCCESS Finale-Sites.xlsx (Phase I cascade, 2021–2023, 22 sites)
¹⁰⁹ SUCCESS 2024 Annual Report for Burkina Faso.xlsx (logframe indicators, Phase I & II)
¹¹⁰ SUCCESS Logframe_Reprogramming and NCE_Final.xlsx (grant targets);

Screening, (Phase I)	WLHIV	WLHIV screened with HPV or VIA test	8726	5 449 (5081 with HPV test)	62.4%
Screening, (Phase II)	Community	Women reached via community model- self sampling	N/A	3433	
Treatment, (Phase I)	GenPop	% eligible for treatment who were treated (project-level)	80%	94.1%	117.8%
Treatment, (Phase I)	WLHIV	% eligible WLHIV for treatment who were treated (project-level)	80%	87.3%	109.1%
Treatment, Phase II		% treated (community model)	80%	91.7–98.9%	>123%
LTFU HPV+ → VIA (Phase I)		LTFU rate (lower = better)	<20%	42.1%	no
LTFU HPV+ → VIA (Phase II)		LTFU rate (lower = better)	<10%	5.4–8.3%	yes

Source: Data provided by JHPEIGO HQ

EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?

Several data challenges pertained to assess progress along the continuum of care. The data provided do not include the number of HPV+ women who were assessed with VIA which limits interpretation. However, during the first phase (December 2019 - November 2023, extended to August 2024) providing facility-based HPV screening and treatment at 21 primary sites, linkage from VIA triage to treatment was strong overall, with 94.1% of eligible women (HPV+ with precancerous lesions) in the general population and 87.3% of WLHIV receiving thermal ablation. According to documents and data reviewed continuity of care was challenged by long delays from screening to results (median 28 days) and screening to treatment (median 45 days), and significant loss to follow-up between HPV-positive result and VIA triage (36.4% in the general population and 55.6% among WLHIV).

The second phase included a focus on follow-up mechanisms, including telephone contact and community health worker tracing, which were effective in achieving 91.7% VIA linkage, 98.9% treatment completion. Moreover, no clear referral pathways or financial support mechanisms exist for women diagnosed with invasive CxCa through SUCCESS screening. This represents an ethical issue, as women were screened and diagnosed but could not access cancer treatment (surgery, radiotherapy, chemotherapy).¹¹¹

¹¹¹ FGDs users

EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-collection & provider, and Thermal Ablation (TA)) and what barriers have they faced in accessing or using them?

Women and healthcare workers¹¹² expressed high satisfaction with HPV testing, self-collection, and TA, citing accuracy, convenience, reduced discomfort, and simplicity as key benefits. However, barriers included long wait times for HPV results, lack of on-site laboratory capacity, cost of HPV tests post-project, limited coverage of confirmed cancer cases, and challenges with equipment maintenance. Al-AVE (automated visual evaluation) was not implemented in Burkina Faso – VIA was used for triage.

Women expressed high satisfaction with the screening and treatment services introduced by the SUCCESS project. Women valued HPV testing for its perceived accuracy and the psychological reassurance of knowing their HPV status. Women in focus groups stated: *“When you explain the interest of HPV sampling, women really find an interest... If they know that they have the ‘baanga-bila’ (cancer virus/HPV in Mooré) or they don’t have it... that already reassures them a bit more”*.¹¹³ Women preferred HPV testing over VIA because it was perceived as more accurate and less invasive. A MoH KI noted: *“Women themselves prefer that we start with this technique because the HPV search is less invasive than VIA”*.¹¹⁴

Women who received thermal ablation treatment reported satisfaction with the procedure’s simplicity, short duration, and minimal discomfort. The ability to receive same-day treatment reduced the need for multiple visits and minimized anxiety about waiting for treatment.

Women expressed strong appreciation for the free services provided during the project. Women in focus groups stated: *“We trusted and accessed the service because it was free and delivered at a known facility”*. The removal of financial barriers was a critical factor in women’s satisfaction and uptake. In the implementation research, 81% of women reported that services were provided with respectful care. This was an important dimension of satisfaction, particularly for WLHIV who may have experienced stigma in other health care settings.¹¹⁵

Healthcare workers also expressed satisfaction with the tools and services introduced, and confidence in their ability to provide quality services. Providers valued HPV testing for its objectivity and diagnostic accuracy compared to VIA, which is subjective and requires significant training and experience. Providers noted that HPV testing reduced the burden of performing VIA on all women, as only HPV-positive women required VIA triage. However, providers also noted challenges with long laboratory turnaround times for HPV testing and lack of on-site testing capacity.

Providers found thermal ablation simple to perform, safe, and suitable for outpatient settings. Unlike cryotherapy (which requires gas cylinders) or LEEP (which requires electricity, surgical skills, and anesthesia), thermal ablation could be performed with minimal infrastructure and training. Providers appreciated the ability to offer same-day treatment, which improved patient satisfaction and reduced

¹¹² All FGDs and KIs with health care workers

¹¹³ Former KI form CSPS Sig-Nonghin

¹¹⁴ MoH KI

¹¹⁵ SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

loss to follow-up.¹¹⁶

Providers expressed satisfaction with the training received on HPV screening, VIA/VAT, and thermal ablation. The training was comprehensive and hands-on, covering both clinical skills and counseling. Providers felt confident in their ability to provide quality services after the training.

Despite high satisfaction, women faced several access barriers related to long turnaround times for test results, transportation costs, stigma and limited access to treatment of invasive cancer. The median 28-day wait for HPV results was a major source of frustration and anxiety for women. Some women waited months for results, leading to loss of trust and disengagement. A midwife at CHU Sourou Sanou, Bobo-Dioulasso noted: *“Women are frustrated by the long wait times. Some give up and don’t come back”*.¹¹⁷ Women living far from facilities faced challenges accessing services, particularly when multiple visits were required. Transportation costs and time away from work or family were significant barriers for women from remote areas.¹¹⁸ After the project ended, the cost of HPV tests became a major barrier.¹¹⁹ Women diagnosed with invasive CxCa faced a gap in the continuum of care, as invasive cancer treatment (surgery, radiotherapy, chemotherapy) was not covered by the SUCCESS project or any health insurance. This left some women unable to access or afford the treatment they needed.¹²⁰ ¹²¹ WLHIV faced stigma related to both HIV and CxCa, which affected their willingness to seek screening and treatment. Some women feared being identified as HIV-positive if they attended CxCa screening at HIV clinics.¹²²

Healthcare workers also faced barriers related to health information systems, lab capacity, and TA device maintenance and repair, and after closure of the project most activities, except TA, completely discontinued. Providers faced challenges with the DHIS2 Tracker system, including lack of internet connectivity, complexity of data entry, and lack of integration with other health information systems. This increased the burden of data collection and reporting. In addition, the lack of on-site GeneXpert machines at many sites required sample transport to distant laboratories, causing long delays and logistical challenges.¹²³ Providers faced challenges with thermal ablation device maintenance and repair. During the warranty period, issues were shared with manufacturers and troubleshooted, but shipping costs for repairs often exceeded the value of the device. After the warranty period, providers lacked resources and technical expertise for maintenance.

After the project ended, providers faced shortages of consumables (PreservCyt medium, HPV test cartridges, thermal ablation tips). This prevented them from continuing to offer services, even when they had the equipment and skills.¹²⁴ Providers lacked resources (airtime, transportation) for intensive follow-up of women who did not return for results or treatment after project closure. A midwife noted: *“During the project, we had resources for telephone follow-up. Now, we don’t have airtime to call women”*.¹²⁵

¹¹⁶ CHR Banfora midwives FGD

¹¹⁷ Schifra Confessional center KII

¹¹⁸ CMA Do Midwives FGD

¹¹⁹ CHR Banfora Midwives FGD

¹²⁰ WLHIV beneficiaries FGD

¹²¹ CHR Banfora Midwives FGD

¹²² CBO Alavie Medical Center KII

¹²³ Jhpiego KII

¹²⁴ Midwives FGD, KII : CMA Do, Banfora, Pissy, University Hospital Yalgado, Sourou Sanou, Alavie Medical Center, CMA Schiphra

¹²⁵ CMA DO Midwives FGD

EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of CxCa screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?

Market-shaping efforts through UNICEF procurement achieved volume discounts for HPV tests and thermal ablation devices, making them more affordable than individual country procurement. However, post-project affordability remained a major barrier. As of May 2026, Burkina Faso has no HPV tests in stock at any level of the public health system and HPV tests cost 15,000-50,000 FCFA (\$25–\$83 USD) in private facilities.¹²⁶ Although there are ongoing NGO projects related to HPV test in some facilities, neither the government of Burkina Faso nor external donors continued with the procurement of HPV tests.

Thermal ablation devices were efficiently deployed to 21 sites, but maintenance challenges and lack of consumables post-project limited sustained utilization. The deployment was efficient in the sense that devices reached facilities quickly and were put into use. However, several challenges emerged. During the warranty period, maintenance issues were reported to manufacturers and troubleshooted, but shipping costs for repairs often exceeded the device's value. After the warranty period, facilities lacked resources and technical expertise for maintenance. Some devices, especially those in lower-level sites, became non-functional and could not be repaired. Thermal ablation requires disposable tips, which must be replaced after each use. Similarly, LEEP requires disposable loops, which were not available post-project. While thermal ablation devices are battery-powered and do not require continuous electricity, charging the batteries requires reliable electricity, which was not always available at lower-level facilities. This limited utilization at some sites.

After the project ended, thermal ablation continued at some sites but not others. Sites that continued thermal ablation were primarily those with alternative funding sources (e.g., user fees, NGO support) or those that had stockpiled consumables (CHU facilities). The lack of sustained utilization represented a significant loss of the investment in device procurement and provider training. In summary, key bottlenecks included a lack of national procurement capacity (financial resources and technical guidance), limited government budget allocation, high unit costs relative to country resources and other health priorities, and weak supply chain management.

1.3.3 INTEGRATION OF SERVICES AND TOOLS IN NATIONAL STRATEGIES (EQ3)

EQ3.1 Are the gains from the Unitaïd-supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd's contributions beyond the project period?

The SUCCESS project demonstrated technical feasibility and generated strong demand for HPV-based screening and thermal ablation treatment in Burkina Faso, but sustainability remains critically threatened by the absence of government budget allocation for HPV tests, ongoing security crisis and health priorities diverting resources, and fragmented procurement and distribution systems. Combined these barriers materialised into a complete depletion of HPV test stocks following project

¹²⁶ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

closure.

The project successfully demonstrated the feasibility of integrating HPV DNA testing and thermal ablation into Burkina Faso's health system across 21 primary sites and 17 laboratories spanning six health regions. Healthcare providers expressed strong confidence in the new technologies. A midwife stated: *"With thermal ablation, it's just a device. You charge your powerbank and you can treat 80 women without problem"*. Another provider at CMA Do noted: *"We were able to integrate the activity into our activities... a woman who comes for family planning, we take the opportunity to do CxCa screening"*, illustrating successful service integration into routine reproductive health care.¹²⁷

Women's demand for HPV testing persisted beyond project closure. Multiple providers reported continued requests from women: *"Even this morning there's an old woman who came here... she came to ask if we continue to do it because she wants to redo it"*. A midwife recounted: *"When we had finished, many came asking... ah... the test is finished, no!? When should we resume?!"*. This sustained demand demonstrates community acceptance and the project's success in generating awareness.¹²⁸

Conditions undermining sustainability

Despite the achievements, three interconnected barriers fundamentally undermine sustainability.

1. High costs of HPV test and absence of government budget allocation for HPV tests: The most critical barrier is the lack of a dedicated government budget line for HPV tests. HPV test prices remain prohibitively expensive for government procurement: Abbott \$2.99, Roche (Cobas) \$6.41, Hologic \$2.50, Cepheid (GeneXpert) \$9.99 per test.¹²⁹ At the lower end (Abbott at \$2.99), screening 70% of eligible women (approximately 2.5 million women aged 30–49) would require approximately \$7.5 million for tests alone, excluding collection devices, laboratory consumables, and operational costs. This exceeds Burkina Faso's current CxCa budget allocation, which covers only VIA-based screening supplies (acetic acid and specula) and limited cryotherapy supplies at tertiary facilities.

As of May 2026, Burkina Faso has no HPV tests in stock at any level of the public health system.¹³⁰ FGDs with midwives and health service providers identified the costs of the HPV test as the primary obstacle, while VIA is affordable. Burkina Faso's national health insurance scheme (RAMU) does not currently cover CxCa screening or treatment. The Transition Plan developed in November 2023 explicitly acknowledged this challenge, noting that the MoH recognized it *"cannot support this burden"* and therefore reverted to VIA as the primary screening method.¹³¹ The Extension Plan (December 2023) outlined a two-year roadmap (2024–2025) to secure financing, but as of May 2026, no domestic budget allocation has materialized.¹³²

Unlike some countries where private sector providers can absorb screening services, Burkina Faso's private health sector remains small and concentrated in urban areas. The cost of HPV testing in private

¹²⁷ CMA Do Midwives FGD

¹²⁸ CHR Banfora and CMA Do Midwives and CHW FGD, CBO Alavie Medical Center KII

¹²⁹ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

¹³⁰ Unitaïd Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

¹³¹ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

¹³² Plan d'extension du projet SUCCESS par le MSHP, Décembre 2023

facilities places it beyond the reach of most women.¹³³

2. Competing health priorities and security crisis diverting resources: Burkina Faso faces multiple competing health priorities, including malaria, HIV/TB, maternal mortality, and malnutrition, all within a constrained health budget. The security crisis has further reduced available resources. In this context, CxCa prevention, despite its high mortality burden, struggles to secure prioritization. Burkina Faso's ongoing security crisis has further constrained the government's capacity to invest in health services. A midwife at the Hospital Sourou Sanou explained: *"I think it's the current context of insecurity where all resources are directed toward the war... otherwise if there was security currently... we would be able to manage that"*.¹³⁴ The COP (2021) documented the deteriorating security situation, noted that the security crisis is diverting government budget from health to military, a trend that has intensified through 2024–2026. This resource diversion is compounded by reduced development aid, and limited government capacity to co-finance health programmes.

3. Fragmented procurement and distribution systems, supply chain disruptions and stock depletion: The project relied on UNICEF international procurement and Centrale d'Achat des Médicaments Essentiels Génériques (CAMEG) national distribution.¹³⁵ The project experienced severe supply chain disruptions that foreshadowed sustainability challenges. In 2022, a fire at the CAMEG (national pharmaceutical warehouse) destroyed HPV test stocks and caused result delays exceeding six months¹³⁶ with the following cascading effects:

- Loss to follow-up as women became discouraged and stopped returning for results. *"The women were coming back and forth, and at one point, many were discouraged and no longer came"*. A midwife at the University Hospital Sourou Sanou: *"At the beginning, there was really enthusiasm, but at one point, when CAMEG caught fire with the incident, the wait for results was very long... There were samples we did, and it was practically after six months or more that we got the results"*.
- Even when results were eventually returned, many women could not be reached and providers reported difficulty maintaining women's engagement during prolonged waiting periods. *"There are many positive results that I recorded that are there. So ladies did not come"*. *"When the results come in now, you can call them and... well... some will tell you they are no longer there; some will say... ah... I will come and they don't come"*.¹³⁷

UNITAID procured and delivered replacement HPV tests following the CAMEG fire, restoring testing capacity. However, the replacement process required several months, during which delays in results and widespread loss to follow-up occurred. The 2023 Annual Report documents the procurement and distribution of replacement stock, enabling the resumption of testing activities. The incident nonetheless demonstrated the vulnerability of the single-warehouse procurement model and the cascading consequences of supply chain disruption on the screening-to-treatment cascade. The Extension Plan noted that *"each site is specific and a reflection should be conducted for a site-specific transition plan"*¹³⁸, acknowledging the complexity of decentralized procurement.

As of May 2026, there are no HPV tests from the SUCCESS project in stock anywhere in Burkina Faso.¹³⁹ The procurement data shows that during the project period, 90 packs of Abbott HPV tests, 2,423 packs

¹³³ Former MoH KII

¹³⁴ University Hospital Sourou Sanou Midwives FGD

¹³⁵ Questions Procurement_Jhpiego Burkina Faso,

¹³⁶ SUCCESS 2023 Annual Report (Narrative), March 2024

¹³⁷ KII health service providers, FGD midwives

¹³⁸ Questions Procurement_Jhpiego Burkina Faso,

¹³⁹ Jhpiego KII

of GeneXpert HPV tests, 13 packs of Cobas 4800 HPV (960-test), and 27 packs of Cobas 4800 HPV (240-test) were procured through UNICEF and local channels, all funded by UNITAID^{140, 141}. Without continued external funding or government procurement, screening has reverted entirely to VIA.

Mechanisms that could support sustainability and scalability

Despite these barriers, several mechanisms offer potential pathways to sustainability, and demonstrated scalability potential:

Finalized national guidelines and policy framework. The MoH validated national guidelines for HPV DNA testing and thermal ablation treatment in December 2024¹⁴². These guidelines, developed through a participatory process involving the GTT-ECCU established by ministerial decree in 2021, provide the policy foundation for scale-up. The Transition Plan and Extension Plan outline specific strategies for integrating HPV testing into the national health system.

Trained workforce and laboratory platform multiplexing. The project trained approximately 420 health workers (~20 per site)¹⁴³ and deployed 61 thermal ablation devices (49 WISAP, 12 LIGER) across 21 primary screening sites and three LEEP sites^{144, 145}. The training infrastructure remains in place: national training modules for CxCa screening have been developed and integrated into the PRSS (Paquet de Référence de Soins de Santé) curriculum¹⁴⁶, ensuring that future cohorts of health workers can be trained without external support. The project leveraged existing GeneXpert, Cobas, and Abbott platforms originally deployed for HIV viral load and TB testing¹⁴⁷, demonstrating that HPV testing can be integrated into existing laboratory infrastructure without requiring dedicated equipment. This multiplexing approach significantly reduces capital costs and enhances scalability.

Integration with existing services. The project successfully integrated CxCa screening into HIV care (targeting WLHIV), family planning services, and postpartum care (42-day postpartum screening)¹⁴⁸. This integration model is scalable because it leverages existing patient flows and provider contacts rather than creating parallel systems.

Community demand and CBSS. The project's extensive community mobilization efforts, 155 educational talks and 26 discussion groups reaching 6,865 women and 1,006 men through civil society partnerships¹⁴⁹, created sustained awareness and demand. Phase 2 CBSS models demonstrated exceptionally high completion rates: 94.6% VIA/VAT completion and 98.4% treatment completion in the door-to-door model; 91.7% VIA/VAT and 98.9% treatment in the CSO/CBO model¹⁵⁰. This community readiness represents a critical asset for future scale-up and is particularly scalable in rural and hard-to-reach areas where facility-based screening faces access barriers.

GF cervical cancer-specific financing. Burkina Faso successfully secured GF GC7 funding for CxCa, specifically requesting coverage for HPV screening of 20% of WLHIV in the country^{151, 152}. This

¹⁴⁰ Unitaid Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

¹⁴¹ Questions Procurement_Jhpigo Burkina Faso,

¹⁴² National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

¹⁴³ SUCCESS 2024 Annual Report (Narrative), 2025

¹⁴⁴ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

¹⁴⁵ Questions Procurement_Jhpigo Burkina Faso,

¹⁴⁶ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

¹⁴⁷ Plan de transition projet SUCCESS, Novembre 2023

¹⁴⁸ Ibid.

¹⁴⁹ SUCCESS 2023 Annual Report (Narrative), March 2024

¹⁵⁰ Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

¹⁵¹ SUCCESS 2023 Annual Report (Narrative), March 2024

¹⁵² SUCCESS 2024 Annual Report (Narrative), 2025

represents a critical financing mechanism that could restore HPV testing capacity, though implementation has been delayed and the scope remains limited compared to the project's broader population reach.

Cost structure and financing gap

The C4P (Cervical Cancer Prevention and Control Costing) exercise conducted in 2024 provided detailed cost data for Burkina Faso.^{153 154} The true cost drivers are:

1. HPV test procurement (60–70% of total screening costs)

HPV test procurement represents the single largest cost driver. Unit prices during the project period were:

- Abbott: \$2.99 per test
- Roche (Cobas): \$6.41 per test
- Hologic: \$2.50 per test
- Cepheid (GeneXpert): \$9.99 per test

These prices include reagents, cartridges, and controls but exclude collection devices, laboratory consumables, freight, insurance, distributor margins, and local logistics. When these additional costs are included, the total cost per test result ranges from \$7–\$15 depending on platform and procurement channel. For context, screening 70% of eligible women (approximately 2.5 million women aged 30–49) would require approximately 1.75 million HPV tests (assuming 70% coverage). At the lowest unit price (Abbott at \$2.99), this would cost \$5.2 million for tests alone. Including collection devices (\$2.50 per kit), laboratory consumables, and logistics, the total screening cost would exceed \$10 million.

2. Laboratory consumables and platform costs (15–20% of total screening costs)

Laboratory consumables include:

- Specimen collection brushes (\$2.50 per pack) and PreservCyt solution (\$2.50 per 20mL vial)
- Pipette tips, gloves, specimen transport containers
- Annual service contracts for GeneXpert, Cobas, and Abbott platforms
- External quality assurance panels

The project leveraged existing GeneXpert, Cobas, and Abbott platforms originally deployed for HIV viral load and TB testing¹⁵⁵, avoiding capital equipment costs. However, platform maintenance and quality assurance represent ongoing costs. The Transition Plan noted that “*platform multiplexing facilitates implementation of laboratory activities*” but also acknowledged that “*laboratory workload has not increased according to providers*”¹⁵⁶, suggesting that multiplexing may have hidden costs in terms of delayed turnaround times for other tests.

¹⁵³ SUCCESS 2024 Annual Report (Narrative), 2025

¹⁵⁴ SUCCESS Country Operational Plan Burkina Faso (contextual information on security and political situation), February 2021

¹⁵⁵ Plan de transition projet SUCCESS, Novembre 2023

¹⁵⁶ Ibid.

3. Personnel time for follow-up and treatment (10–15% of total costs)

Personnel costs include:

- Approximately 15–20 minutes per woman for pre-test counseling, sample collection (or supervision of self-collection), and post-test counseling¹⁵⁷
- Phone calls to notify women of results and schedule follow-up appointments
- Approximately 10–15 minutes per HPV-positive woman
- Approximately 15–20 minutes per woman, including preparation, procedure, and post-treatment counseling
- Tracking women lost to follow-up, conducting home visits in some cases

Providers noted that HPV testing reduced time compared to VIA: *“The HPV test allows to reduce the time often spent for VIA examinations”*. However, follow-up for HPV-positive women required significant personnel time, particularly when result delays occurred.

4. Thermal ablation devices, a one-time capital investment

Thermal ablation devices represent a one-time capital investment that significantly reduces ongoing treatment costs compared to cryotherapy. The project procured 61 devices (49 WISAP, 12 LIGER) at an estimated cost of \$800–\$1,200 per device. At an estimated cost of \$1,000 per device and 2,000 treatments per device, the capital cost per treatment is \$0.50, plus \$3 for consumables, totaling \$3.50 per treatment. This compares favorably to cryotherapy (estimated \$5–\$8 per treatment including gas) and LEEP (estimated \$50–\$100 per treatment including anesthesia and consumables).

5. Supply chain and logistics (5–10% of total costs)

Supply chain costs include:

- International freight and insurance are estimated at 12% of the commodity value¹⁵⁸
- Customs clearance and import duties, the project benefited from tax exemptions, but these represent real costs for government procurement
- CAMEG storage and distribution (Fees for warehousing and distribution to health facilities)
- Cold chain maintenance: Refrigerators and freezers for PreservCyt solution storage
- Sample transport: Integration into SITEB (national integrated biological sample transport system) reduced costs, but some sites required dedicated transport support

6. Training and capacity building

Training costs include:

- 3–5 day workshops for clinical providers on HPV screening, VAT, and thermal ablation
- 3–5 day workshops for laboratory staff on HPV testing platforms
- 2–3 day workshops for ASC, ASBC, and CSO leaders

¹⁵⁷ Ibid.

¹⁵⁸ CHAI HPV Learnings 2024 (PowerPoint, French), April 2024

- Quarterly supportive supervision visits
- Refresher training and supervision represent ongoing costs.

7. Data systems and monitoring

Data system costs include:

- Software development, server hosting, and internet connectivity for tablets at screening sites
- Barcode scanners and labels for sample tracking
- Automated SMS messages to notify women of results
- Regular data audits and validation

The Transition Plan noted that “*DHIS2 Tracker continued to be adjusted as needed to the realities of implementation*”¹⁵⁹, and that “*funding to ensure scale-up and sustainability remains uncertain*”. Data systems represent a modest cost component but are critical for monitoring cascade performance and ensuring treatment follow-up.

EQ3.2 Which financing approaches, across public, private, and donor sources, are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?

Unitaïd financing was the sole effective financing mechanism during the SUCCESS project period, enabling free screening and precancerous treatment of CxCa for over 41,000 women (38,348 screened in Phase 1 + 3,433; Phase 2 = 41,781. Of those, 27,559 through HPV testing and 10,789 through VIA). Government financing has not materialized despite policy commitments, and private sector financing remains inaccessible to most women due to prohibitive costs.

The true cost drivers are HPV test procurement (60–70% of total screening costs), laboratory consumables and platforms, and personnel time for follow-up and treatment. Thermal ablation devices represent a one-time capital investment that significantly reduces ongoing treatment costs compared to cryotherapy.

This financing model proved highly effective in achieving project objectives but was inherently time-limited and non-sustainable without transition to government or alternative financing.

The Government of Burkina Faso made strong policy commitments to CxCa elimination, including: free screening and treatment of precancerous lesions as national policy (VIA). HPV vaccination for girls aged 9–14 years in 2021, with SUCCESS providing technical support for launch; the GTT-ECCU by ministerial decree in 2021, demonstrating institutional commitment; The MoH validated national guidelines for HPV screening and thermal ablation in December 2024, a Transition Plan (November 2023), and an Extension Plan (December 2023–2025).¹⁶⁰ But these policy commitments have not translated into budget allocation and, therefore, reverted to VIA as the primary screening method.

¹⁵⁹ Plan d’extension du projet SUCCESS par le MSHP, Décembre 2023

¹⁶⁰ Plan d’extension du projet SUCCESS par le MSHP, Décembre 2023

GF Financing was emerging but limited. Burkina Faso successfully secured GF GC7 CxCa-specific funding, requesting coverage for HPV screening of 20% of WLHIV in the country.^{161 162} This represents a critical emerging financing mechanism, but as of May 2026, implementation has been delayed, and the scope remains limited:

- The GF allocation targets only WLHIV, excluding the general population of women aged 30–49 years who represent the majority of the screening-eligible population. Despite approval in 2023, HPV tests procured through GF have not yet reached service delivery sites as of May 2026.
- Covering 20% of WLHIV is a significant achievement but falls far short of the WHO 90-70-90 targets (70% of women screened) especially considering that this is a high-risk population.

The GF mechanism offers promise but requires expansion to cover the general population and acceleration of implementation timelines.

Private sector was financing inaccessible to most women. Private sector financing for CxCa screening exists in Burkina Faso but remains inaccessible to the majority of women due to prohibitive costs. A gynecologist at Alavie Medical Center noted that HPV testing in private facilities costs 15,000–50,000 FCFA per test, equivalent to \$25–\$83 USD. For context, Burkina Faso’s GDP per capita is approximately \$900 USD (2023), meaning an HPV test costs 3–9% of annual per capita income.

The private sector model has several limitations:

- Private facilities offering HPV testing are concentrated in Ouagadougou and Bobo-Dioulasso, leaving rural areas without access.
- Private laboratories have limited throughput capacity and do not participate in national quality assurance programs.
- Private sector financing exacerbates inequities, as only urban, higher-income women can access services.

A provider contrasted the project’s free services with private costs: “*Minimum 10,000f [FCFA] for each woman [HPV test]. Yet if it’s VIA, it’s not expensive*”¹⁶³, highlighting the cost barrier.

Civil society and community financing - mobilization but not service delivery. CSOs and community-based organizations (CBOs) played critical roles in demand generation and mobilization but did not finance service delivery. The project provided small grants to 10 local CSOs in 2022 for community mobilization activities. The project also provided transportation subsidies (3,250 FCFA) to 3,250 WLHIV to facilitate screening access.

COMPARATIVE COST-EFFECTIVENESS: HPV TESTING VS. VIA

The reversion to VIA as the primary screening method following project closure raises questions about comparative cost-effectiveness. The C4P costing exercise estimated that HPV-based screening is cost-effective at willingness-to-pay thresholds of \$500–\$1,000 per disability-adjusted life year (DALY)

¹⁶¹ SUCCESS 2023 Annual Report (Narrative), March 2024

¹⁶² SUCCESS 2024 Annual Report (Narrative), 2025

¹⁶³ Burkina/Papillomavirus humain (HPV) et cancers associés : « Toute personne sexuellement active est potentiellement exposée », selon Dr Ina A. Traoré/Minoungou. Banfora.org- Amitiés Saintonge Banfora, <https://www.banfora.org/2026/01/09/burkina-papillomavirus-humain-hpv-et-cancers-associes-toute-personne-sexuellement-active-est-potentiellement-exposee-selon-dr-ina-a-traore-minoungou/> (2026).

averted.^{164 165}

Key considerations include:

HPV testing advantages:

- Higher sensitivity: HPV testing detects 90–95% of precancerous lesions, compared to 50–60% for VIA
- Longer screening interval: HPV-negative women can be rescreened every 5 years, compared to 3 years for VIA-negative women
- Objective results: HPV testing provides laboratory-confirmed results, reducing inter-operator variability
- Self-collection option: HPV testing enables CBSS, expanding access

VIA Advantages:

- Lower direct costs: VIA requires only acetic acid (approximately \$0.50 per screening), speculum, and light source
- Immediate results: VIA provides same-day results, enabling same day screen-and-treat approaches
- No laboratory infrastructure required: VIA can be performed at primary health centers without laboratory support

However, the lower sensitivity of VIA means that more women will develop CxCa despite screening, resulting in higher treatment costs and mortality.

EQ3.3 Were best practices from early-adopter countries applied to accelerate CxCa programming in other countries?

Structured South-South knowledge sharing between early-adopter countries and Burkina Faso was limited during the SUCCESS project period. While Burkina Faso benefited from global technical assistance and regional platforms (Project ECHO, Regional Dialogues), there is no evidence of formal study tours, peer learning networks, or direct knowledge transfer from early-adopter countries such as Kenya, Malawi, or Rwanda. The project was perceived by some stakeholders as ‘imposed’ rather than adapted from proven models, though key elements (community self-sampling, thermal ablation, HPV testing integration) were successfully contextualized to Burkina Faso’s health system.

Stakeholders perceived certain project elements as externally determined rather than co-designed with local partners. While stakeholders were aware of regional implementation, there were no structured mechanisms for peer learning or experience sharing among countries. This perception contrasts with the project’s stated approach of “co-designing”. No respondents described participation in study tours to early-adopter countries (Kenya, Malawi, Rwanda, South Africa) or receiving peer visits from providers in those countries. A gynecologist at Alavie Medical Center mentioned awareness of

¹⁶⁴ SUCCESS 2023 Annual Report (Narrative), March 2024

¹⁶⁵ SUCCESS 2024 Annual Report (Narrative), 2025

parallel implementation in Côte d'Ivoire: *"I heard that Côte d'Ivoire was doing the same project in parallel, but with no formal exchange occurred"*.¹⁶⁶ Other stakeholders mentioned that *"The project was packaged and came with fixed parameters"*.¹⁶⁷: (1) Laboratory platform selection (the use of GeneXpert, Cobas, and Abbott platforms was driven by global procurement agreements and existing assets rather than local infrastructure preferences, and required sample transport to centralised laboratories in some areas, contributing to turnaround delays); (2) Procurement channels (reliance on UNICEF international procurement introduced supply chain dependencies); (3) Data systems (the DHIS2 Tracker module was perceived as complex and not well integrated with existing health information systems, increasing data collection burden for providers).

Several factors limited South-South knowledge sharing:

- **Language barriers:** Early-adopter countries in East and Southern Africa (Kenya, Malawi, Rwanda, South Africa, Zimbabwe) are primarily anglophone, while Burkina Faso is francophone. This language barrier limited direct peer-to-peer exchange. The Project ECHO SUCCESS addressed this by operating in French, but broader South-South learning remained constrained.
- **Geographic distance.** The geographic distance between West Africa (Burkina Faso) and East/Southern Africa (early-adopter countries) limited opportunities for in-person exchange. Regional platforms focused on either West Africa (AFRAVIH) or Asia-Pacific (Regional Dialogues), rather than pan-African learning.
- **Project design and timeline:** The SUCCESS project operated in four countries simultaneously (2020–2023), rather than sequentially learning from early-adopter countries. This parallel implementation model limited opportunities to apply lessons from early adopters before starting in Burkina Faso.
- **Funding constraints:** Study tours, peer visits, and South-South exchanges require dedicated funding. The project budget prioritized service delivery, training, and commodity procurement over South-South learning activities.

However, several elements were successfully adapted to the Burkina Faso context: (1) Community self-sampling models were adapted to deploy existing ASBC (community health agents) in door-to-door campaigns, aligning with established community health structures; (2) CSO and CBO engagement was tailored through small grants to 10 local organizations, including PLHIV associations, which mobilized WLHIV through culturally appropriate outreach; (3) HPV testing integration was embedded into HIV clinic routines at PLHIV associations and family planning services, using existing patient flows.

1.3.4 IMPLEMENTATION EFFICIENCY (EQ4)

EQ4.1 How timely, cost-efficient/ cost-effective was implementation and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts?

The SUCCESS project in Burkina Faso operated from June 2021 to November 2023 (Phase 1), with a cost extension to 2025 (Phase 2). The project achieved its primary implementation milestones within the planned timeline, screening 38,348 women in Phase 1 and 3,433 women in Phase 2. However,

¹⁶⁶ Alavie Medical center KII

¹⁶⁷ MoH KII

several factors caused delays. The most significant delays were caused by the COVID-19 pandemic, the CAMEG warehouse fire in 2022, and the security situation.¹⁶⁸

The COVID-19 pandemic also caused delays in project startup and implementation. The COP (February 2021) noted pandemic-related constraints, and the 2023 Annual Report documented reduced travel and field activities due to pandemic restrictions. While specific delays are not quantified, the pandemic contributed to the delayed start date.

Significant loss to follow-up occurred at multiple cascade steps during Phase 1 (Facility-Based, 2021-2023). After HPV testing, 36.4% of HPV-positive women in the general population and 55.6% of WLHIV did not return for VIA triage assessment. Among the general population, 2,229 of 3,504 HPV-positive women (63.6%) completed VIA assessment, while among WLHIV, only 653 of 1,472 HPV-positive women (44.4%) returned for triage. This represents a critical gap in the screen-and-treat cascade, with WLHIV experiencing a 19.2 percentage-point higher LTFU rate than the general population at this step.¹⁶⁹ Multiple factors contributed to this attrition:

- **Waiting time:** The median laboratory turnaround time (screening to HPV result) was 28 days (IQR 22–38 days). While this is within acceptable ranges for centralized laboratory testing, it represents a significant delay compared to point-of-care testing or VIA (which provides same-day results). The Transition Plan noted that “97.1% of women enrolled received their results within 90 days”, suggesting that 2.9% of women never received results within the target timeframe. The CAMEG warehouse fire in March 2022 destroyed HPV test kit stocks, forcing some samples to wait 6+ months for results. As pointed out during midwives' FGDs, “At the beginning, there was real enthusiasm, but at a certain point when CAMEG caught fire in the incident, the wait for results was very long. So, there were samples we took, and it was practically after six months or more that we got the results. And the women were going back and forth, and at a certain point, many were discouraged and did not come back anymore.”¹⁷⁰
- **Wrong information:** Providers reported that many women provided incorrect phone numbers, making result notification impossible. When providers attempted to call women with positive results, they frequently reached wrong numbers or men who denied knowing the woman: “It’s fake numbers that the women give. I encountered cases, the results you call the woman it’s a man who answers from Ouaga. And that same day, he says ‘ah madam, did you look at the number carefully? I don’t even have a wife let alone...’ when it was a woman who did HPV. So, it’s fake numbers that the women give.”¹⁷¹ Providers offered several explanations for the incorrect phone number phenomenon: privacy and confidentiality concerns; (2) fear of stigmatization; (3) absence of personal phone; (4) Literacy limitations.¹⁷²
- **Continuity:** During periods of high demand, counselling sessions were rushed, and women did not fully understand the importance of returning for results and follow-up care.¹⁷³
- **Affordability:** Women living in remote areas faced transportation costs (average 3,250 FCFA) to return to facilities for results and treatment, which many could not afford without

¹⁶⁸ KII health service providers, FGD midwives

¹⁶⁹ BaseRapportsSUCCESS Finale-Sites.xlsx

¹⁷⁰ Souro Sanou Bobo midwives FGD

¹⁷¹ CMA Do Midwives FGDs

¹⁷² CMA Do Midwives FGDs, CMA Pissy KII, CBO Alavie Medical Center KII

¹⁷³ CMA Pissy KII

subsidies.¹⁷⁴

- **Additional barriers:** WLHIV experienced 19.2 percentage points higher LTFU than the general population, suggesting additional barriers including stigma, competing health priorities (ART adherence, opportunistic infection management), and fatigue from frequent clinic visits.

At Phase 2 (CBSS, 2023-2025) there was 94.6% VIA linkage, 98.4% treatment completion at community level and CSO/CBO model achieved 91.7% VIA linkage and 98.9% treatment completion. During this stage, Community health workers conducted home visits for women who missed appointments, dramatically reducing LTFU. Phase 2 community-based model with active follow-up by community health workers achieved near-universal linkage and treatment completion.¹⁷⁵

Burkina Faso's deteriorating security situation further constrained implementation timeliness and coverage. The COP documented that *"the security crisis is diverting government budget from health to military"*¹⁷⁶, and providers noted that *"all resources are directed toward the war"*. Security constraints limited outreach in rural areas affected by insecurity and reduced frequency of supportive supervision due to travel risks. It also meant that the project concentrated in six accessible regions, excluding insecure areas.

Despite these challenges, the project achieved cost-efficiency through several mechanisms.

- **The project leveraged existing GeneXpert, Cobas, and Abbott platforms originally deployed for HIV viral load and TB testing**, avoiding capital equipment costs estimated at \$15,000–\$50,000 per platform. The Transition Plan noted that *"platform multiplexing facilitates implementation of laboratory activities"*, and providers confirmed that *"the HPV test allows for the reduction of the time often spent during VIA examinations"*. However, multiplexing may have contributed to laboratory turnaround time delays, as HPV samples competed with HIV and TB samples for processing capacity.
- **Thermal ablation devices achieved significant cost-efficiency compared to cryotherapy.** At an estimated cost of \$3.50 per treatment (capital cost amortized over 2,000 treatments plus consumables), thermal ablation is significantly more cost-efficient than cryotherapy (\$5–\$8 per treatment) or LEEP (\$50–\$100 per treatment).
- **Phase 2 CBSS achieved cost-efficiency** by eliminating the need for women to travel to facilities for sample collection, and reducing facility workload and women's opportunity costs (travel time, lost wages). In addition, training existing ASBC and psychosocial counselors rather than hiring dedicated staff, reduced personnel costs; The C4P costing exercise estimated that CBSS is cost-effective at willingness-to-pay thresholds of \$500–\$1,000 per DALY averted, though specific cost-per-woman-screened data have not yet been published.
- **Integrating CxCa screening into existing services** (HIV care, family planning, postpartum care) achieved cost-efficiency by leveraging existing patient flows. This integration model is highly cost-efficient and scalable. Women already attending facilities for other services could be screened opportunistically, reducing recruitment costs. Screening used existing consultation rooms, equipment, and staff, avoiding the need for dedicated CxCa clinics. Integrating

¹⁷⁴ CBO Alavie Medical Center KII

¹⁷⁵ Capitalisation des résultats de Success.xlsx, SUCCESS 2024 Annual Report

¹⁷⁶ Questions Procurement_Jhpigo Burkina Faso,

normalized CxCa screening as part of routine reproductive health care or HIV care also reduced barriers to uptake. A provider at CMA Do confirmed: *“We were able to integrate the activity into our activities... a woman who comes for family planning, we take the opportunity to do CxCa screening.”*^{177 178}

- **The project used a train-the-trainers (TOT) model and supportive supervision**, training 420 health workers who could then train others. This cascade training approach is more cost-efficient than centralized training. The TOT model creates a multiplier effect, enabling rapid expansion without proportional increases in training costs, as trainers can conduct regional or district-level training, reducing participant travel costs. Furthermore, trained providers become local champions and mentors, providing ongoing support without external assistance. The Transition Plan noted that *“trainers for service delivery and lab trained nationally and regionally to take over support”*,¹⁷⁹ confirming the sustainability of this approach.
- **Community mobilization and make partner engagement** contributed to additional efficiency gains

However, value for money was undermined by high loss to follow-up due to result delays, stockouts in 2022–2023, and the ultimate failure to transition to sustainable government financing. The project achieved strong triage-treatment completion rates and guideline development but had a relatively low coverage (1.7% of the eligible population) and low sustainability potential. Of the 27,559 women who received HPV testing in Phase 1, 3,504 general population women (19.3%) and 1,472 WLHIV (34.9%) tested HPV-positive. Among HPV-positive women, 2,151 received thermal ablation treatment in Phase 1 (2,145 calculated as 1,802 general population + 343 WLHIV), and 8 received LEEP treatment for large lesions. Phase 2 community-based models treated an additional 371 women.

Without urgent action to restore HPV testing capacity and transition to sustainable financing, the efficiency gains achieved through UNITAID investment will be lost.

EQ 4.2 Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments?

Learning was captured through implementation research, programmatic monitoring data, qualitative stakeholder consultations, and the Time and Motion study. Learning was shared through national dissemination workshops, regional platforms (Project ECHO, Regional Dialogues, international conferences: AIDS2024, IPV, Union for International Cancer Control,) publications, and Technical Working Group meetings. Strategic incorporation of learning was successful in some areas (national guidelines, training curricula, data systems, community mobilization strategies, financing advocacy) but incomplete in others (operationalization of community self-sampling, addressing the result-delay bottleneck, DHIS2 Tracker rollout, private-sector engagement, supply chain resilience, early transition planning).

¹⁷⁷ Burkina/Papillomavirus humain (HPV) et cancers associés : « Toute personne sexuellement active est potentiellement exposée », selon Dr Ina A. Traoré/Minoungou. Banfora.org- Amitiés Saintonge Banfora, <https://www.banfora.org/2026/01/09/burkina-papillomavirus-humain-hpv-et-cancers-associes-toute-personne-sexuellement-active-est-potentiellement-exposee-selon-dr-ina-a-traore-minoungou/> (2026).

¹⁷⁸ CMA Do Midwives FGD

¹⁷⁹ Plan de transition projet SUCCESS, Novembre 2023

The failure to secure government financing means that key learnings have not been operationalized at scale, risking loss of project investments.

EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?

As presented in the table below, strategic risks (government financing, policy commitment, security crisis) were identified early but inadequately managed, resulting in failure to secure sustainable financing. Implementation risks (supply chain disruptions, result delays, LTFU, provider motivation) were identified and partially mitigated through adaptive management, but the CAMEG fire exposed critical vulnerabilities.

Sustainability/scalability risks (high HPV test costs, limited government capacity, competing health priorities, private sector engagement) were identified but remain largely unmitigated, threatening loss of all project investments. Risk management effectiveness was low for strategic and sustainability risks, and moderate for implementation risks.

Table 5: Risk management effectiveness assessment

Risk category	Risk identification	Risk management	Risk outcome	effectiveness
Strategic risks				
Government financing	Early, explicit	Moderate (advocacy, costing, GF)	Failure (no budget allocation)	Low
Political commitment	Early, explicit	Moderate (GTT-ECCU, policy integration)	Partial (policy commitment without financing)	Moderate
Security crisis	Early, explicit	Moderate (geographic concentration, flexible implementation)	Partial (services continued but sustainability undermined)	Moderate
Implementation risks				
Supply chain disruption	Early, explicit	Moderate (CAMEG partnership, UNICEF procurement)	Failure (fire leading to stockouts)	Low
Laboratory turnaround time	Early, explicit	Moderate (capacity building, multiplexing, DHIS2)	Partial (28-day median acceptable, but CAMEG fire caused 6+ month delays)	Moderate
Loss to follow-up	Early, explicit	Moderate (DHIS2, CHW follow-up, transportation subsidies)	Partial	Moderate

Provider motivation	Early, explicit	Moderate (training, supervision, recognition, incentives)	Partial (high satisfaction but concerns about compensation)	Moderate
Sustainability/scalability risks				
High HPV test cost	Early, explicit	Moderate (volume procurement, UNICEF, costing, GF)	Failure (costs remain prohibitive for government financing, no government budget)	Low
Limited government capacity	Early, explicit	Moderate (capacity building, institutional strengthening, data systems)	Partial (capacity built but insufficient for sustainability)	Moderate
Competing health priorities	Early, explicit	Moderate (integration, advocacy, policy integration)	Partial (service delivery integration successful, policy prioritization insufficient)	Moderate
Private sector engagement	Late, implicit	Low (no explicit strategies)	Failure (minimal private sector engagement)	Low

1.3.5 OVERVIEW OF KEY LESSONS FOR THE SIX LEARNING THEMES

Service delivery models and commodity supply – Key lessons:

- **CBSS achieves higher completion rates than facility-based screening:** Phase 2 door-to-door self-sampling achieved 94.6% VIA/VAT completion and 98.4% treatment completion, compared to lower rates in facility-based Phase 1. This model is particularly effective for reaching rural and hard-to-reach women.
- **Laboratory platform multiplexing is cost-efficient but requires careful capacity planning:** Leveraging existing GeneXpert, Cobas, and Abbott platforms for HPV testing avoided capital equipment costs, but may have contributed to laboratory turnaround time delays in larger health facilities (median 28 days). Dedicated HPV testing days or point-of-care testing could reduce turnaround time.
- **Thermal ablation is superior to cryotherapy for treatment:** Thermal ablation devices are portable, require minimal consumables, and are easier to use than cryotherapy. Providers strongly preferred thermal ablation. However, the project experience identified two practical operational challenges that must be addressed in future rollout:
 - Consumable supply: thermal ablation requires disposable tips that must be replaced after each use. Post-project, facilities, especially low-level ones, lacked funding to procure replacement

tips, effectively disabling device use even when devices remained functional. Thermal ablation's claimed 'minimal consumables' advantage is real in per-unit terms but requires a sustainable supply chain for consumable procurement;

- Battery charging: thermal ablation devices are battery-powered, which eliminates the need for mains electricity during the procedure (an advantage over cryotherapy). However, battery charging requires reliable electricity, which was not consistently available at lower-level CSPS facilities. Sites with solar panels or generator backup-maintained device functionality, while facilities with frequent power outages experienced interruptions in treatment capacity.
- **Supply chain resilience is critical and often underestimated:** The CAMEG fire caused catastrophic disruption, destroying HPV test stocks and causing result delays exceeding six months. Single-point-of-failure risks must be mitigated through diversified storage, buffer stocks, and alternative distribution channels.
- **Self-collection is highly acceptable to women:** 82% of women chose self-collection over provider collection, and qualitative data confirmed strong preference. Self-collection reduces provider time and enhances women's autonomy.
- **Integration into existing services enhances efficiency and acceptability:** Integrating CxCa screening into HIV care, family planning, and postpartum care leverage existing patient flows and normalized screening.

Continuum of care – Key lessons:

- **Result delays are the primary driver of loss to follow-up:** Women screened within 20 days had 100% treatment completion within 90 days, compared to only 60.3% for women screened after 40+ days ($p < 0.0001$). Reducing laboratory turnaround time is the most effective intervention to improve continuum of care.¹⁸⁰
- **WLHIV face additional barriers to treatment completion:** WLHIV LTFU was 13–19 percentage points higher than general population¹⁸¹, despite being a priority population. WLHIV require intensified follow-up support, including transportation subsidies, community health worker home visits, and integration with HIV care.
- **SMS result notification reduces delays but cannot compensate for prolonged laboratory turnaround:** DHIS2 Tracker SMS notification was valued by providers and women, but when laboratory turnaround exceeded six months due to the CAMEG fire, SMS notification could not prevent LTFU.¹⁸²
- **Same-day or next-day treatment is ideal but requires point-of-care testing:** Screen-and-treat protocols (VIA followed by immediate thermal ablation) achieved high completion rates, but HPV-based screening requires laboratory testing, introducing delays. Point-of-care HPV testing (e.g., true point of care tests or GeneXpert at the facility level with dedicated days dedicated to priority HPV) could enable same-day or next-day treatment.

¹⁸⁰ Jhpiego KII personal communication

¹⁸¹ Filho AM, Laversanne M, Ferlay J, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. *Intl Journal of Cancer* 2025; 156: 1336–1346.

¹⁸² Shiphra Medical Center KII

- **Community health worker follow-up is effective for tracking women lost to follow-up:** Phase 2 community-based models deployed ASBC to conduct home visits for women who missed appointments, achieving 94.6% VIA/VAT completion and 98.4% treatment completion. Reaching out physically to women and convincing them to attend their follow-up visit allowed achieving this result;¹⁸³ This model should be scaled.

Leave No One Behind (LNOB), equity & gender barriers- Key lessons:

- **Sustainable financing mechanisms that ensure affordable access essential for equity:** Cost is a major barrier for low-income women. However, affordable access requires sustainable financing mechanisms, not indefinitely free donor-financed services. The SUCCESS project demonstrated the critical importance of removing cost barriers: the free-of-charge service model enabled women who could not afford private-sector HPV test to access screening and was a key driver of the strong uptake documented during the project period. However, the abrupt collapse of services when donor financing ended demonstrates that the lesson is not that services must always be free, but that affordable access must be guaranteed through sustainable mechanisms: government budget subsidies targeted at low-income women; inclusion of HPV testing and thermal ablation in the national health insurance (RAMU) benefit package; Global Fund financing for priority populations (WLHIV); and corporate/employer-based financing for urban women.
- **WLHIV are a priority population but face additional barriers:** HPV positivity among WLHIV was 27.5%, compared to 13.7% in the general population, confirming the importance of prioritizing this population. However, WLHIV LTFU was 13–19 percentage points higher, indicating that additional support is needed.
- **Community-based models reach rural and hard-to-reach women:** Phase 2 door-to-door self-sampling reached women who would not have accessed facility-based services, achieving 94.6% VIA/VAT completion and 98.4% treatment completion. This model is critical for equity.
- **Male partner opposition is a significant gender barrier:** Multiple women and providers reported that male opposition prevented women from accessing screening and treatment. Male engagement activities (educational talks, discussion groups) are essential to address this barrier. The project's male engagement activities (1,006 men reached) addressed this barrier, though more intensive engagement may be needed.
- **Geographic inequities persist due to security constraints:** The project concentrated in six accessible regions, excluding insecure areas. Women in insecure areas have no access to HPV testing, exacerbating geographic inequities.
- **Provider attitudes and respectful care matter:** 81% of women reported respectful care, and qualitative data confirmed that provider attitudes influenced women's willingness to return for follow-up. Training on respectful care and client-centered approaches is essential.

Programming at scale- Key lessons:

- **National guidelines and policy frameworks are necessary but not sufficient for scale-up:** Burkina

¹⁸³ CMA Do CHW FGD

Faso validated national guidelines in December 2024, but without government budget allocation, scale-up has not occurred. Policy must be matched with financing.

- **Training of trainers enables rapid scale-up:** The TOT model trained 420 health workers who can train others, creating a multiplier effect. This model is more cost-efficient than centralized training and enables rapid scale-up.
- **Data systems are critical for monitoring scale-up:** DHIS2 Tracker enabled real-time monitoring of screening, results, and treatment, but full national rollout remains incomplete due to funding constraints and interoperability challenges.
- **Supply chain management is a major bottleneck for scale-up:** The CAMEG fire and subsequent stockouts demonstrated that supply chain management is a critical constraint. Scale-up requires robust supply chain systems with diversified storage, buffer stocks, and alternative distribution channels.
- **Community mobilization is essential for generating demand at scale:** The project's extensive community mobilization (155 educational talks, 26 discussion groups reaching 6,865 women and 1,006 men) generated strong demand. Scale-up requires sustained community mobilization, which is resource-intensive.

Sustainable financing – Key lessons:

- **Donor financing is essential in the near term but not sustainable long term:** Unitaid financing enabled comprehensive, free services for over 41,000 women, but services ceased when project funding ended and government financing did not materialize. Transition to sustainable financing must begin early.
- **HPV test costs are the primary barrier to sustainable financing:** Even at competitive prices (Abbott \$2.99, Hologic \$2.50 per test), HPV tests are unaffordable for government procurement. Screening 70% of eligible women would cost \$10+ million, exceeding Burkina Faso's CxCa budget by orders of magnitude.
- **GF financing is critical but insufficient:** Burkina Faso's GF GC7 allocation targets only 20% of WLHIV, far short of the WHO 70% coverage target. GF financing must be expanded to cover the general population.
- **Health insurance inclusion is a promising but underutilized mechanism:** Burkina Faso's national health insurance scheme (RAMU) does not currently cover CxCa screening or treatment. Including HPV testing and thermal ablation in the RAMU benefit package would create sustainable financing through insurance premiums.
- **Private sector engagement is essential for diversified financing:** The project did not engage the private sector, limiting financing options. Public-private partnerships, franchising models, or corporate sponsorship could expand access and generate revenue to cross-subsidize services for low-income women.

- **Early transition planning is critical:** Transition planning was delayed until late 2023^{184, 185}, limiting the government's ability to secure budget allocations for 2024. Earlier transition planning (e.g., in 2022) could have enabled more timely government procurement.

South-South learning - Key lessons:

- **Structured South-South knowledge sharing was limited:** Within the SUCCESS portfolio, structured cross-country learning between Burkina Faso and the other three SUCCESS countries (Côte d'Ivoire, Guatemala, Philippines) was limited. Burkina Faso and Côte d'Ivoire share a francophone context and similar health system structures, and both countries faced challenges with laboratory turnaround times and post-project sustainability, yet there is no documented evidence of formal exchange of lessons between the two country teams during implementation. Beyond the SUCCESS portfolio, there is also no evidence of structured learning from early-adopter countries (Kenya, Malawi, Rwanda) that had already implemented HPV-based screening at scale before the SUCCESS project launched in Burkina Faso.
- **Regional platforms (Project ECHO, Regional dialogues) enable peer learning:** Project ECHO SUCCESS (12 sessions, 102 participants from francophone African countries) and Regional Dialogues enabled peer learning, though not specifically focused on early-adopter country experiences.
- **Language barriers limit South-South learning:** Early-adopter countries in East and Southern Africa are primarily anglophone, while Burkina Faso is francophone, limiting direct peer-to-peer exchange. Francophone learning platforms are needed.
- **Implementing partners (Jhpiego) facilitate informal knowledge transfer:** Jhpiego's simultaneous implementation across multiple SUCCESS countries and prior experience in early-adopter countries (Kenya, Malawi, Rwanda) was not explicitly structured as a knowledge transfer mechanism, representing a missed opportunity. A more systematic approach could have included: (1) formal, structured cross-country learning sessions between country teams at key project milestones (year 1 review, mid-project review); (2) documented 'lessons learned' shared between country teams before similar implementation challenges emerged; (3) provider exchange visits between early-implementing Jhpiego sites and later-implementing sites. Future UNITAID-funded programmes should require implementing partners to document and formally share cross-country learning as a contractual deliverable, not as an informal by-product of multi-country presence.
- **Adaptation to local context is essential:** The project successfully adapted proven approaches (community self-sampling, thermal ablation, HPV testing integration) to the Burkina Faso context, demonstrating that technical transfer can occur through implementing partners even without direct South-South exchange.
- **Perception of 'imposed' models undermines ownership:** Some stakeholders perceived the project as *"imposed, it was packaged and came with fixed parameters"*, suggesting that more

¹⁸⁴ National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

¹⁸⁵ Plan d'extension du projet SUCCESS par le MSHP, Décembre 2023

explicit South-South learning could have enhanced local ownership and adaptation.

1.3.6 OVERVIEW OF SIX HYPOTHESES

Table 6: Overview of six hypotheses

Hypothesis	Testing of the hypothesis
1. Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	- Partially proved. The reversion to VIA as the primary screening method indicates that proof of feasibility alone is insufficient to trigger national adoption without financing. Women showed growing awareness and willingness to undergo HPV DNA testing after community sensitization campaigns. Women preferred HPV testing over VIA because it was perceived as more accurate and less invasive. Even after the project ended, women continued requesting HPV testing at facilities. - CBSS was implemented through two models: (1) door-to-door model with ASBC conducting home visits, and (2) CSO/CBO model mobilizing women through existing networks. Both models achieved high completion rates: 94.6% VIA/VAT completion and 98.4% treatment completion in door-to-door model; 91.7% VIA/VAT and 98.9% treatment in CSO/CBO model. - The project successfully demonstrated feasibility and acceptability of community self-sampling, but national adoption has not occurred. The Extension Plan (December 2023) outlined a roadmap for scaling community self-sampling, but implementation has not occurred due to lack of government financing.
2. Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	- Partially approved. Integration + same-day testing reduces LTFU. The project integrated CxCa screening into HIV care, family planning, and postpartum care. Providers reported successful integration: <i>"We were able to integrate the activity into our activities... a woman who comes for family planning, we take the opportunity to do CxCa screening"</i>. - Integration leveraged existing patient flows and normalized screening as part of routine reproductive health care. However, same-day testing/treatment was not achieved for HPV-based screening due to laboratory turnaround time (median 28 days). Screen-and-treat protocols (VIA followed by immediate thermal ablation) were implemented where possible. - Integration into existing services was successful and enhanced client convenience and provider confidence. However, same-day testing/treatment was not achieved for HPV-based screening, and result delays caused significant LTFU from screening to triage. Women screened and receiving test results within 20 days had 100% treatment completion, compared to only 60.3% for women screened and

	receiving test results after 40+ days, demonstrating that delays undermined the hypothesis.
3. HPV DNA testing increase HW diagnostic confidence, improving continuity of care	- Proved. HPV testing increases HW confidence. HPV DNA testing increased provider diagnostic confidence. – Health care providers expressed strong confidence in HPV DNA testing compared to VIA. HPV DNA testing provided objective, laboratory-confirmed results, reducing inter-operator variability and increasing provider confidence. Treatment completion rates were exceptionally high: 97.3% of VIA-eligible women with moderate lesions received treatment. However, result delays undermined continuity of care, as women screened after 40+ days had only 60.3% treatment completion.
4. Proof of concept triggers national government buy-in, leading to policy and budget inclusion	Partially proved. Proof of concept triggered policy buy-in (national guidelines validated) but not budget inclusion. - The project successfully demonstrated proof of concept, screening 30,000+ women with HPV tests. The MoH validated national guidelines in December 2024, demonstrating policy buy-in. - The project conducted extensive dissemination workshops, shared implementation research findings, and provided C4P costing data to inform policy and budget advocacy. The Transition Plan and Extension Plan outlined pathways to policy and budget inclusion. - The government has not allocated budget for HPV tests as of May 2026, and services have ceased due to stockouts. The Transition Plan explicitly noted that <i>“the Ministry has seen that... it cannot support this burden”</i>, demonstrating that proof of concept alone is insufficient to trigger budget inclusion without addressing financing constraints.
5. Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	Partially proved. Price negotiation triggers government procurement. - The project achieved competitive HPV test prices through UNICEF procurement: Abbott \$2.99, Roche \$6.41, Hologic \$2.50, Cepheid \$9.99 per test. These prices are consistent with global access pricing. - UNICEF procurement leveraged volume (40,000 tests) and global access pricing agreements to achieve competitive prices. The C4P costing exercise documented these prices to inform government procurement planning. - Despite achieving competitive prices, the MoH has not procured HPV tests. Even at the lowest price screening 70% of eligible women would cost \$10+ million, exceeding Burkina Faso’s CxCa budget by orders of magnitude. Price negotiation and volume procurement reduced costs but did not make HPV testing financially feasible for government procurement without external financing.
6. Structured knowledge sharing from early adopters shortens innovation-	Partially proved. Structured knowledge sharing shortens innovation-

to-scale timeline in later-adopter countries	to-scale timeline. - Structured South-South knowledge sharing between early-adopter countries (Kenya, Malawi, Rwanda) and Burkina Faso was limited. There is no evidence of formal study tours, peer learning networks, or direct knowledge transfer. - The project leveraged regional platforms (Project ECHO, Regional Dialogues) and Jhpiego's multi-country experience for informal knowledge transfer. The project successfully adapted proven approaches (community self-sampling, thermal ablation, HPV testing integration) to the Burkina Faso context. - The time from pilot to national scale-up has not been reduced, in fact, scale-up has stalled due to lack of government financing. While the project successfully adapted proven approaches, the absence of structured South-South learning may have limited local ownership and adaptation.
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1.4 CONCLUSIONS AND CONSIDERATIONS FOR THE WAY FORWARD

1.4.1 HIGH-LEVEL STRATEGIC RECOMMENDATIONS

1. The GF GC7 allocation to screen 20% of WLHIV has been approved. As of July 2026, despite approval, HPV tests have not been procured and distributed under this allocation at SUCCESS project implementation sites specializing in HIV, leaving the approved mechanism inactive. The urgent recommendation is to accelerate the implementation of this already-approved allocation by activating the GF GC7 HPV test procurement and distribution to prevent irreversible loss of SUCCESS project investments. The Government of Burkina Faso should convene an emergency coordination meeting to establish a clear timeline for the procurement and distribution of GF GC7 HPV tests. The target should be full distribution to all SUCCESS project sites and WLHIV care sites within 90 days of procurement, to prevent further erosion of trained provider capacity and community trust.

2. The failure to secure government budget allocation is the most critical barrier to sustainability. Without domestic financing, Burkina Faso will remain dependent on donor funding and unable to achieve WHO 90-70-90 targets. Secure domestic budget allocation of at least \$2–3 million per year by 2027, enabling screening of 20–30% of eligible women and demonstrating government commitment to CxCa elimination by:

- Launching a high-level advocacy campaign targeting the MoH, Ministry of Finance, and National Assembly to secure a dedicated CxCa budget line in the 2027 national budget. Use C4P costing data to demonstrate cost-effectiveness and return on investment;
- Advocating for a dedicated CxCa budget line within the MoH budget, protected from reallocation to other priorities;
- Proposing a phased budget allocation starting with WLHIV (highest risk population) and gradually expanding to the general population over 3–5 years;
- Identifying and engaging high-level champions (e.g., First Lady, Minister of Health, National Assembly Health Committee Chair) to champion CxCa elimination.

3. Health insurance inclusion creates sustainable financing through insurance premiums rather than relying on government budget allocations. Create a sustainable financing mechanism that reduces reliance on government budget allocations and donor funding, while expanding access to insured women by:

- Advocating to the National Health Insurance Agency (CNAM) to include HPV testing, thermal ablation treatment, and follow-up care including radiotherapy in the RAMU benefit package;
- Providing detailed costing data to inform premium calculations and benefit package design;
- Extend HPV screening to the 7 regions not covered by SUCCESS, beginning with the regions with the highest CxCa burden and most accessible health infrastructure
- Ensuring that uninsured women (particularly rural, low-income women) have access to free services through government-funded programs.

4.: Build national supply chain resilience to eliminate single-point-of-failure risks and ensure continuous HPV testing service availability

- Distributing HPV test stocks across multiple regional warehouses (e.g., Ouagadougou, Bobo-

Dioullasso, Koudougou) to avoid single-point-of-failure risks;

- Maintaining 3–6-month buffer stocks at the facility level to mitigate supply chain disruptions.
- Developing backup distribution channels (e.g., private couriers, direct facility delivery) if CAMEG is unavailable;
- Implementing first-expiry-first-out (FEFO) inventory management to reduce wastage.
- Ensuring adequate cold-chain capacity (refrigerators, freezers) for PreservCyt solution storage across all sites.

5. Result delays are the primary driver of loss to follow-up. Reduce laboratory turnaround time from 28 days to 1–2 days, increasing treatment completion rates and reduce LTFU by:

- Conducting pilot and cost-benefit analysis comparing centralized laboratory testing vs. true point-of-care testing, strengthening supply chain resilience, enhancing LTFU tracking and patient navigation tools, optimizing facility-level efficiency and improved treatment completion;
- Scaling-up plan: if the pilot is successful, develop scale-up plan to deploy point-of-care testing at all high-volume sites (>500 women screened per year);
- Implementing facility-level quality assurance programs to ensure accuracy of point-of-care testing.

6. Expand access to HPV testing through private sector, generate revenue to cross-subsidize services for low-income women, and reduce pressure on public facilities by:

- Conducting market assessment to identify private sector opportunities (private laboratories, private clinics, employers, insurance companies);
- Developing public-private partnerships for HPV testing (private laboratories process samples at regulated prices) and service delivery (private clinics offer screening at subsidized prices for low-income women) and inclusion of services in health benefit packages;
- Piloting franchising model where private providers are licensed to offer HPV testing at regulated prices, with government subsidies for low-income women;
- Engaging the private sector and large employers (mining companies, telecommunications companies, government agencies) to sponsor screening for their employees and surrounding communities;
- Strengthening regulatory framework to ensure quality and affordability of private sector services.
- Enhancing risk management by including early and aggressive transition planning, supply chain resilience as a core component, point-of-care testing to reduce turnaround time, diversified financing strategies, conflict-sensitive programming, and private sector engagement from the outset.

1.4.2 OPERATIONAL RECOMMENDATIONS

1. Activate GF GC7 HPV test procurement immediately;
2. Secure domestic budget allocation dedicated CxCa budget line for 2027
3. Reduce laboratory turnaround time through point-of-care HPV testing pilot;
4. Build supply chain resilience multi-site distribution, buffer stocks, backup channels;
5. Scale community-based self-sampling with ASBC integration as the national standard model.

1.5 ANNEXES

ANNEX 12.A.1. DETAILED OPERATIONAL RECOMMENDATIONS FOR IMPLEMENTERS

1. Intensify follow-up support 1) for WLHIV and for general population

- Providing transportation subsidies to all WLHIV to facilitate follow-up attendance, as was done in Phase 1, the resources to support such subsidies can come from carcinogenic products taxation, for example or resource mobilization with the private sector;
- Deploying CHW who conduct home visits for WLHIV who miss appointments, as was done in Phase 2;
- Fully integrating CxCa screening into HIV care, with CxCa screening offered at every HIV care visit (not just opportunistically);
- Engaging WLHIV peer educators to provide peer support and encouragement for screening and treatment completion;
- Implementing automated SMS reminders for follow-up appointments (e.g., 3 days before appointment, day of appointment, 3 days after missed appointment);
- Piloting two-way SMS where women can confirm or reschedule appointments via SMS, reducing no-shows;

2. Monitor all steps of the cascade for improved analysis of LTFU and tailored strategies by

- Ensuring collection of data on HPV test taken, results provided, VIA triage visit, Eligible for treatment of Precancerous lesion/ eligible for treatment of invasive cancer, treatment completion per type.
- Tailoring interventions to address potential gaps across key steps of the cascade.

3. Conduct quarterly supportive supervision visits with positive feedback by:

- Conducting quarterly supportive supervision visits to all screening sites, focusing on positive feedback, problem-solving, and mentorship (not punitive inspection);
- Identifying and recognize 'champion providers' who achieve high screening and treatment completion rates, and use them as mentors for other providers;
- Organizing peer learning visits where providers from lower-performing sites visit higher-performing sites to observe best practices;
- Developing standardized supervision checklist covering screening quality, treatment quality, data quality, supply management, and client satisfaction;

4. Reduce male opposition as a barrier, increasing screening uptake by:

- Organizing community dialogues with male partners, religious leaders, and traditional leaders to address misconceptions and encourage male support for CxCa screening;
- Identifying and engaging male champions (e.g., men whose wives were successfully treated) to share testimonials and encourage other men to support their wives;
- Offering couples counselling where both partners receive information about CxCa and treatment, addressing concerns and building joint decision-making;
- Using radio, television, and social media to promote male support for CxCa screening, featuring male champions and success stories.

5. Improve provider confidence and adherence to protocols, reducing errors and improving quality of care by:

- Developing simplified job aids (laminated cards, posters, mobile apps) covering HPV screening algorithm (who to screen, how to screen, how to interpret results); VAT algorithm (who is eligible

for thermal ablation, who needs referral for LEEP/biopsy); thermal ablation procedure (step-by-step guide with photos);

- Developing a follow-up schedule (when to schedule follow-up, what to do if woman misses appointment) and troubleshooting mechanisms (common problems and solutions).

ANNEX 12.A.2. OVERVIEW OF KIIS AND FGDS

Organization	KII or FGD	# of people interviewed/consulted	Male/Female
Jhpiego	KII	1	2 Male/ 1 Female
MoH (central coordination)	3 KIIs	3	2 Male/ 1 Female
MoH (implementation sites: University Hospital Yalgado Ouedraogo, Souro Sanou, CMA Do, CHR Banfora)	4 FGD (Midwives)	19	1 Male/ 18 Female
MoH (implementation sites: CMA Do, CHR Banfora)	2 FGD (CHW)	15	15 female
MoH (implementation sites/ CSPS Sigh Nonghin, CMA Pissy)	KII (Midwives)	2	1 Male/ 1 Female
Private CMA Shiphra	KII (Midwives)	1	1 Female
CSO (COBUCAN)	KII	1	1 Male
CBO (Alavie Medical Center)	KIIs	2	1 Male/ 1 Female
CBO (Alavie Medical Center)	FGD (Beneficiaries General population)	5	5 Female
CBO (Alavie Medical Center)	FGD (Beneficiaries WLHIV)	7	7 Female
Peri-urban (CHR Banfora)	FGD (Beneficiaries General population)	2	2 Female
Urban (CMA Do)	FGD (Beneficiaries General population)	6	6 Female

ANNEX 12.A.3. DOCUMENTS REVIEWED FOR THE COUNTRY CASE STUDY

Inception Report Unitaid CxCa eval'Unitaid

Filho AM, Laversanne M, Ferlay J, et al. The GLOBOCAN 2022 cancer estimates: Data sources, methods, and a snapshot of the cancer burden worldwide. Intl Journal of Cancer 2025; 156: 1336–1346.

Ouedraogo E, Bayala B, Zohoncon TM, et al. Cervical Cancer in Burkina Faso: Current Status, Government Strategies, and the Role of Traditional Medicine in Treatment. Ann Res Rev Biol 2024; 39: 135–146

Burkina/Papillomavirus humain (HPV) et cancers associés : « Toute personne sexuellement active est potentiellement exposée », selon Dr Ina A. Traoré/Minoungou. Banfora.org- Amitiés Saintonge Banfora, <https://www.banfora.org/2026/01/09/burkina-papillomavirus-humain-hpv-et-cancers-associes-toute-personne-sexuellement-active-est-potentiellement-exposee-selon-dr-ina-a-traore-minoungou/> (2026).

SUCCESS Phase I Global Implementation Research Study Report (2022-2024), Version 2: September 30, 2024

Unitaid Flash Report, SUCCESS Expertise France 2024 Semi-Annual Report (Burkina Faso Country Report), July 2024

SUCCESS Country Operational Plan Burkina Faso, Update February 25, 2021

Plan de transition projet SUCCESS, Novembre 2023

Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

SUCCESS 2023 Annual Report (Narrative), March 2024

SUCCESS 2024 Annual Report (Narrative), 2025

Burkina Data Requested by Consultants - Capitalisation des résultats de Success.xlsx

National Guidelines for HPV Screening and Thermal Ablation, MoH Burkina Faso, validated December 2024

Plan d'extension du projet SUCCESS par le MSHP, Décembre 2023

SUCCESS Country Operational Plan Burkina Faso (contextual information on security and political situation), February 2021

Questions Procurement_Jhpiego Burkina Faso,

CHAI HPV Learnings 2024 (PowerPoint, French), April 2024

2 COUNTRY CASE STUDY REPORT FOR KENYA

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ACRONYMS

ACF	Africa Cancer Foundation
AI	Artificial Intelligence
CBSS	Community-Based Self-Sampling
CFLA	County First Ladies Association
CHAI	Clinton Health Access Initiative
CHP	Community Health Promoter(s)
CIHEB	Center for International Health, Education, and Biosecurity
CSO	Civil Society Organization
EMR	Electronic Medical Records
FGD	Focus Group Discussion
FP	Family Planning
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HSI	Health Systems Insight (formerly ThinkWell)
GoK	Government of Kenya
KDF	Kenya Defence Forces
KEMRI	Kenya Medical Research Institute
KEMSA	Kenya Medical Supplies Authority
KENCO	Kenya Network of Cancer Organizations
KHIS2	Kenya Health Information System-2
KII	Key Informant Interview
KMTC	Kenya Medical Training College
LEEP	Loop Electrosurgical Excision Procedure
LTFU	Lost To Follow Up
MoH	Ministry of Health
MNCH	Maternal, Neonatal and Child Health
NCCP	National Cancer Control Programme
NCD	Non-Communicable Diseases
NORL	National Oncology Reference Laboratory
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
SHA	Social Health Authority
TA	Thermal Ablation
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization
WLHIV	Women Living with HIV

EXECUTIVE SUMMARY

Cervical cancer remains one of the leading causes of cancer-related illness and death among women in Kenya, despite being largely preventable through vaccination, screening, and early treatment. Women living with HIV face a 2-to-4-fold higher risk¹⁸⁶, making cervical cancer a critical public health and equity issue. Over the last decade, Kenya has demonstrated growing commitment to cervical cancer elimination, aligning its efforts with the World Health Organization's global strategy to achieve 90–70–90 targets for vaccination, screening, and treatment. This country case study examined the contribution of Unitaids-supported investments to cervical cancer secondary prevention across 25 counties¹⁸⁷ between 2019 and 2025. Through document review, stakeholder consultations, facility assessments, and analysis of programme data, the study explored how innovations were introduced, scaled, and integrated into Kenya's health system.

Rapid expansion of HPV screening: The findings reveal great progress. Across the 25 supported counties, over 3.4 million women were screened for cervical cancer between 2019 and 2025. Annual screening volumes increased from about 286,000 (22%) women in 2019 to more than 766,000 (59%) women in 2024, reflecting substantial expansion of service delivery capacity and demand for screening. One of the most significant achievements related to Unitaids support was the transition toward HPV DNA testing, now recognized globally as the most sensitive screening method. The most dominant cervical cancer primary screening method across the 25 counties, however, remained VIA (accounting for 88% of all screenings). HPV testing increased gradually from around 5000 women in 2019 to more than 46,000 in 2025 (nine-fold increase) during the implementation period, supported by Unitaids investments in laboratory systems, provider training, and introduction of innovative service delivery models such as community-based self-sampling. Self-sampling helped bring services closer to women, particularly those in marginalized or hard-to-reach communities and those who might otherwise face other barriers to accessing facility-based screening.

Strengthening the screening-to-treatment continuum: Beyond screening, the programme contributed to meaningful improvements in precancerous treatment access. More than 103,000 women were identified with positive screening results across all methods. Women screening positive for VIA accounted for about 70,300 of these, requiring treatment of precancerous lesions. However, only about 22,000 (31%) of the women accessed precancerous treatment during this period. Additionally, over 26,000 women were found to have suspicious lesions requiring further evaluation and management and were referred for further management. The introduction and scale-up of thermal ablation (TA) represented a major breakthrough. Once virtually unavailable, TA became widely adopted across supported counties, providing a safe, effective, and practical treatment option for precancerous lesions compared to previous reliance mainly on cryotherapy. The expansion of TA treatment services alongside strengthened referral systems and provider capacity, has improved treatment rates for precancerous lesions and improved the referral and management of suspicious cancer lesions and advanced cancer cases.

Integration as a catalyst: A key lesson from Kenya's experience is the value of service integration. Cervical cancer services were increasingly embedded within existing HIV, reproductive health, and

Commented [PN1]: the difference in definition and therefore not comparable is explained later in the report

Commented [SO2R1]: clarification provided

¹⁸⁶ Huchko M, Bukusi E, Cohen C. Cervical Cancer Screening and Treatment in HIV-infected Women in Kisumu, Kenya: An Assessment of the Feasibility, Validity and Safety of New Techniques. KEMRI CCSP Safety and Validation Trial. 2010 Jul 5th;V1.1

¹⁸⁷ Bomet, Bungoma, Marsabit, Homabay, Kajiado, Kakamega, Kericho, Kiambu, Kilifi, Kisii, Kisumu, Kitui, Isiolo, Machakos, Makueni, Meru, Migori, Mombasa, Nairobi, Nakuru, Nyandarua, Vihiga, Siaya, Laikipia, and Wajir counties

primary health care platforms, allowing programmes to leverage established infrastructure, trained personnel, and patient networks. This approach improved efficiency and enhanced access for women at highest risk, particularly women living with HIV. However, this approach could be further expanded.

The study also highlights the critical role played by national and county governments, implementing partners, civil society organizations, community health workers, and development partners. Their collective efforts created an enabling environment for introducing new technologies, strengthening health systems, and generating community demand for services.

Challenges remain: Despite substantial gains, important challenges persist. Not all women who screened positive completed the pathway to treatment. Weak monitoring of the continuum of care data, with no reporting on HPV+ women who underwent triage, and data gaps. This prevents analysis across the continuum and hinders development of tailored strategies to monitor and address loss to follow-up at various stages of the cascade. MOH/NCCP, with support from key partners, has worked to strengthen reporting by printing and disseminating updated reporting tools made available at the sub-national level. Key informants consistently reported how insufficient referral systems and patient follow-up mechanisms, workforce shortages, and commodity availability continue to affect service delivery in some settings. Variability in county-level health worker capacity also contributes to inequities in access and quality of care and consequently access to treatment. Sustaining progress will require increased domestic financing for cervical cancer secondary prevention, stronger health information systems, continued workforce development, and deeper institutionalization of cervical cancer services within county health systems.

Looking ahead: Kenya's experience demonstrates that well-targeted investments in innovation, service integration, and health system strengthening can accelerate HPV screening and treatment of precancerous lesions. The country has established a foundation upon which future gains can be built; however, requiring adequate financial resourcing in health systems to ensure women are screened, triaged, and treated with high retention along the cascade. As Kenya moves toward achieving the WHO elimination targets through the adoption of the national cervical cancer elimination action plan (NCCEAP) 2025 - 2030, the lessons emerging from this case study offer valuable insights not only for national scale-up but also for other countries seeking to reduce the burden of cervical cancer and ensure that no woman dies from a preventable disease.

Summary of conclusions, evidence and considerations for the future

Conclusion	Findings/Evidence	Suggestions for the future
<i>Conclusion</i>	<i>Findings / Evidence</i>	<i>Suggestions for the future</i>
1. The Unitaids/ Clinton Health Access Initiative (CHAI) project enabled Kenya to make progress in expanding cervical cancer screening services and increasing access to secondary prevention.	Screening volumes increased significantly across the 25 project counties, with approximately 3.4 million women screened between 2019 and 2025. Annual screening volumes grew from about 286,000 women in 2019 to over 766,000 in 2024, directly as a result of the Unitaids-supported work, demonstrating successful scale-up of services in 25 CHAI project-supported counties. However, in total, 88% of all screenings were done through VIA, only 5% through HPV testing, and the remaining 7% through PAP smear. The	Unitaid/CHAI should continue to support the scale-up of screening services in underserved counties while accelerating the transition from VIA to HPV-based screening through phased, readiness-based expansion models and targeted technical assistance.

Conclusion	Findings/Evidence	Suggestions for the future
	catalytic effect of scale-up in the 25 CHAI-supported counties stirred interest from other partners in the remaining 22 counties, leading to an increase in screening.	
2. The introduction of HPV DNA testing has accelerated the transition from VIA to HPV testing, and self sampling shows potential to address some access barriers.	HPV testing increased more than nine-fold during implementation across supported counties, reflecting successful adoption of WHO-recommended screening technologies. Lab turnaround time and suboptimal patient tracking systems and their linkage to care limited the effectiveness and introduced attrition along the cascade of care. Self-sampling approaches were introduced and demonstrated potential to improve access to screening among hard-to-reach populations.	Unitaid/CHAI should deepen support for HPV testing scale-up by strengthening laboratory capacity, strengthening results return, patient tracking and follow-up mechanisms, expanding access to self-sampling, supporting affordable procurement arrangements, and generating implementation evidence to guide national transition strategies.
3. Treatment capacity of precancerous lesions has improved substantially, particularly through the introduction and scale-up of thermal ablation with increased treatment rates of suspicious lesions over the implementation period.	Thermal ablation procedures increased from virtually none in the early years of implementation to more than 4,300 procedures annually by 2024. Treatment rates (among those triaged) increased for women detected with precancerous lesions from about 12% to 43% by the end of 2024. Health worker capacity gaps and device use hesitancy were the most common barriers mentioned.	Unitaid/CHAI should continue to support the optimization and expansion of treatment capacity through structured mentorship, health provider training, equipment maintenance systems, and the deployment of treatment services in counties that meet readiness criteria, while strengthening patient tracking and follow-up systems to support continuity of care.
4. Attrition remains along the screening-to-treatment cascade, limiting the full impact of the programme	While large numbers of women were screened and positive cases identified, not all women completed triage, referral, or treatment. Data along the cascade is fragmented, hindering analysis of loss to follow up data between HPV test and triage. Stakeholder interviews highlighted significant challenges with attrition between test and triage and triage to treatment, both related to challenges in follow-up systems, referral pathways,	Unitaid/CHAI should prioritize investments in patient navigation models, digital tracking systems, referral coordination, and cascade monitoring tools to reduce loss to follow-up and strengthen continuity of care from screening through treatment. Advocacy for higher capitation for Cervical Cancer screening and treatment services under the

Conclusion	Findings/Evidence	Suggestions for the future
	DHIS-2 reporting, and patient navigation.	primary health care fund of the social health authority (SHA).
5. Integration of cervical cancer services within HIV, family planning and reproductive health platforms has improved service reach and efficiency with scope to further integration efforts.	HIV clinics served as important entry points for reaching high-risk women with HPV testing. CxCa Screening coverage of WLHIV in the 25 focus countries improved from 4% coverage in 2020 to a high of 41% in 2024 before decreasing to 30% in 2025 following the drastic USG stop-work directive, funding cuts, and reduced support from the USG. This affected health workers available in HIV clinics (CCCs) to screen and update registers and reports. Counties with stronger integration models (standardized across service delivery points with job aids, workflows and SOPs) reported better screening uptake and more efficient use of existing health infrastructure and workforce. Integration in reproductive health services and family planning services was less pronounced but could reduce access barriers related to stigma.	Unitaid/CHAI should support standardization, institutionalization and expansion of integrated service delivery models across HIV, MNCH, and family planning platforms, including development of workflows, job aids, and operational guidance for routine implementation.
6. Strong partnerships have been instrumental in introducing innovations and supporting implementation.	Collaboration among government agencies, implementing partners, development partners, civil society organizations, and research institutions facilitated technology introduction, capacity building, community engagement, and policy development.	Unitaid/CHAI should maintain and strengthen multi-sectoral coordination and south-south learning platforms, while documenting and disseminating implementation lessons and best practices for national and regional scale-up.
7. Health system constraints continue to affect equitable access and quality of services.	Facility assessments and stakeholder interviews identified gaps in workforce capacity, staff turnover, equipment availability, laboratory infrastructure, and commodity supply chains. Readiness varied considerably across counties. Age limits (35+45 years) in the national health insurance scheme prevent access for other age groups.	Unitaid/CHAI should support county readiness assessments before expansion, while investing in workforce development, laboratory strengthening, commodity forecasting and supply planning, and targeted technical support for lower-capacity counties.

Conclusion	Findings/Evidence	Suggestions for the future
8. Community awareness and demand for services have increased, but sociocultural barriers remain.	Community engagement efforts improved awareness; however, fear, stigma, gender power imbalances, and misconceptions about cervical cancer and concerns regarding screening (and vaccination) continue to influence service uptake in some communities.	Unitaid/CHAI should strengthen culturally appropriate demand-creation strategies through community health promoters, survivor networks, male engagement approaches, and partnerships with community and faith leaders.
9. Sustainability remains a critical challenge as donor-supported innovations transition to routine service delivery. National health benefit packages is an important milestone.	Much of the progress has been supported by external financing and technical assistance. Some counties reverted to VIA after the end of the project. Counties vary in their ability to allocate resources for cervical cancer services and maintain programme gains independently. The inclusion of screening and treatment in the national health insurance scheme is an important recent development, but with perceived low capitation.	Unitaid/CHAI should work with national and county stakeholders to develop and implement a clear transition and sustainability roadmap, including investment cases, advocacy for increased capitation in national health insurance schemes, and strategies to integrate cervical cancer commodities and services into routine financing mechanisms.
10. Kenya provides a good example of how targeted investments can catalyze progress toward cervical cancer elimination, however with substantial data gaps along the continuum of care cascade.	The combination of policy commitment, technology adoption, service integration, community engagement, and partner support has generated measurable improvements across the prevention and treatment continuum. However weak monitoring of the continuum of care data, with no direct reporting on the number and proportion of HPV+ women who underwent triage, and data gaps. This prevents analysis across the continuum and hinders development of tailored strategies.	Unitaid/CHAI should support full integration of cervical cancer indicators, especially triage and treatment indicators, into routine DHIS2 reporting, strengthen interoperable digital systems, and invest in implementation research and analytics to improve monitoring of the full screening-to-treatment cascade.

2.1 INTRODUCTION

2.1.1 BACKGROUND

Unitaid commissioned an evaluation of its secondary cervical cancer prevention portfolio, and Tana-EHG was selected through a competitive process to conduct the evaluation. Kenya provided a highly relevant context for assessing the catalytic impact of Unitaid's investments in accelerating secondary prevention of cervical cancer. Kenya ranks among the top 20 countries globally with the highest cervical cancer mortality¹⁸⁸.

2.1.2 CERVICAL CANCER PROGRAMMING IN KENYA

Context

Cervical cancer remains a leading cause of cancer morbidity and mortality among women in Kenya.¹⁸⁹ The GLOBOCAN 2022 report highlights that Kenya has an estimated annual cervical cancer incidence of 5,845, with 3,591 deaths each year, making it the second most prevalent cancer among women aged 15–44 years old.¹⁹⁰ With an especially high burden among women living with HIV (WHIV). A recent meta-analysis (2016) on the distribution of (Human Papillomavirus) HPV in HIV-infected women in Kenya found a pooled estimated prevalence of HPV 16 and 18 of 61% in HIV-infected women.¹⁹¹ A study from 2017 in Kenya that showed that a significant percentage of women (56–80.6%) were only identified once their cervical cancer was at an advanced stage.¹⁹²

The Government of Kenya (GoK) has prioritized cervical cancer prevention within its broader reproductive health and non-communicable disease agenda, aligning with the global elimination strategy targeting 90-70-90 coverage for HPV vaccination, screening and treatment.¹⁹³ Over the past decade, the country has moved from largely opportunistic screening services to more structured national strategies that incorporate HPV DNA testing, self-sampling and point-of-care treatment options. Under the leadership of the Ministry of Health (MoH) Kenya, screening has become increasingly integrated within high-contact service delivery points, including HIV care, maternal and child health, and family planning clinics, allowing efficient reach of women at elevated risk.¹⁹⁴ Additionally, with the launch of the National Cervical Cancer Elimination Action Plan 2025-2030, Kenya

188 World Population Review, Cervical Cancer Rates by Country 2026 accessed at <https://worldpopulationreview.com/country-rankings/cervical-cancer-rates-by-country>

189 HPV information centre, Kenya Human Papillomavirus and Related Cancers, Fact Sheet 2023, accessed on 28th April, 2026 at https://hpvcentre.net/statistics/reports/KEN_FS.pdf

190 Bray F, Laversanne M, Sung H, et al. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2024;74(3):229-263. doi:10.3322/caac.21834

191 Menon, S., Wusiman, A., Boily, M.C., Kariisa, M., Mabeya, H., Luchters, S., Forland, F., Rossi, R., Callens, S., Vanden Broeck, D., 2016 Oct 20a. Epidemiology of HPV genotypes among HIV positive women in Kenya: a systematic review and meta-analysis. *PLoS One* 11 (10), e0163965. <http://dx.doi.org/10.1371/journal.pone.0163965>.

192 Menon S, Rossi R, Harmon SG, Mabeya H, Callens S. Public health approach to prevent cervical cancer in HIV-infected women in Kenya: Issues to consider in the design of prevention programs. *Gynecol Oncol Rep.* 2017 Oct 16;22:82-88. doi: 10.1016/j.gore.2017.10.002. PMID: 29159260; PMCID: PMC5678735.

193 WHO International Agency for Research on Cancer Elimination Planning Tool: Advancing towards Cervical Cancer Elimination, Kenya, accessed on 10 April 2026 at https://gco.iarc.who.int/media/elimination_tool/factsheets/404-KEN-kenya.pdf

194 Ministry of Health, Kenya, National Cervical Cancer Elimination Action Plan 2025 - 2030

ascertains its commitment to support the CaCx elimination agenda of the 90-70-90.

Unitaid investments in Kenya

Unitaid-supported initiatives over the period 2019-2025 related to secondary prevention of cervical cancer have played a key role in introducing innovative screening technologies, expanding access to diagnostic tools, and piloting integrated service delivery models that strengthen the linkage between screening and treatment of cervical cancer in Kenya.

Working in close collaboration with the MoH and the National Cancer Control Programme (NCCP), alongside county Health Management Teams, the Unitaid-funded project was implemented by The Clinton Health Access Initiative (CHAI) through a phased, evidence-driven approach targeting 25 of the 47 counties of the country. CHAI is a global health organisation founded in 2002 by President William J. Clinton. Established with the transformational goal of saving millions of lives threatened by HIV, CHAI has since expanded into one of the world's most influential health implementation partners. It operates in over 35 countries across Africa, Asia and Latin America, with more than 80 countries benefiting from CHAI-negotiated pricing agreements for medicines, diagnostics, vaccines and other health products. Programme implementation was phased as follows:

Phase I: HPV Testing Pilot (2019–2020): CHAI partnered with the MoH/NCCP to pilot near-point-of-care HPV testing using the GeneXpert platform from October 2019 to December 2020. The objective was to demonstrate the feasibility of integration of HPV into cervical cancer screening programmes, leveraging pre-existing infrastructure for HIV and TB. The pilot targeted 9 facilities across 6 counties, selected for their existing screening services and GeneXpert utilization levels and potential to accommodate additional HPV testing alongside TB and HIV/EID testing. The findings informed Kenya's 2024 Cancer Screening Guidelines.

Phase II (2020 – 2023):

(i) Baseline and Facility Readiness Assessment: Before launching the full programme scale-up implementation, a baseline assessment was conducted in 25 target counties to evaluate facility capacity and readiness, including human resources availability, equipment condition, screening consumable gaps (e.g., HPV kits and Visual Inspection with Acetic Acid (VIA) supplies), infrastructure capacity and patient referral systems. The baseline study showed cervical cancer screening services in Kenya to be available mostly at level 3 hospitals, but at the same time the majority of level 2 and 3 hospitals (which form the bulk of the hospitals in Kenya serving large populations) lacked cervical pre-cancer treatment services.¹⁹⁵ Before 2019, when Unitaid funding arrived, the community health workforce represented an underutilized resource for cervical cancer prevention, despite its extensive reach and trusted position within communities¹⁹⁶.

Kenya had an established but under-resourced community health system that was primarily focused on maternal and child health, HIV/AIDS, immunization, nutrition, and infectious disease control. Community Health Promoters (CHPs), operating under the Kenya Community Health Strategy (KCHS) 2020 - 2025, served as the main link between households and health facilities, conducting health education, referrals, and community mobilization. However, their involvement in cervical cancer

195 Mwenda V, Murage D, Kilonzo C, Bor JP, Njiri P, Osiro L, Nyangasi M, Arbyn M, Tummers P, Temmerman M. Baseline assessment of cervical cancer screening and treatment capacity in 25 counties in Kenya, 2022. *Front Oncol.* 2024 Jul 2;14:1371529. doi: 10.3389/fonc.2024.1371529. PMID: 39015502; PMCID: PMC11249718.

196 Ministry of Health, The Kenya Community Health Strategy 2020 – 2025 accessed at https://chwcentral.org/wp-content/uploads/2021/07/Kenya_Nat'l_Community_Health_Strategy_2020-2025.pdf

prevention was generally limited, inconsistent, and often dependent on localized donor-supported initiatives¹⁹⁷. Most CHPs had received little or no formal training on cervical cancer, HPV infection, screening options, or referral pathways, limiting their ability to effectively educate women or support follow-up of screen-positive clients. Community awareness of cervical cancer remained low, with widespread misconceptions, stigma, fear of cancer diagnosis, and limited understanding of the benefits of early screening and treatment. Referral and follow-up systems at the community level were weak, and CHPs lacked the tools, resources, and structured supervision needed to systematically track women through the screening-to-treatment continuum¹⁹⁸.

(ii) System improvement programme through training of health care workers in cervical cancer secondary prevention, equipment donation, and mentorship. The programme implemented a cascade training model based on findings of the baseline assessment. Master trainers were trained on comprehensive cervical cancer secondary prevention techniques, including HPV testing, VIA triage, Cryotherapy, thermal ablation (TA), Loop Electrosurgical Excision Procedure (LEEP) and colposcopy. They then trained Trainer of Trainers, who cascaded this to facility-level training for frontline service providers in 25 counties. This approach trained more than 6,500 primary health care workers in over 3,000 health facilities and more than 300 specialized providers in cervical cancer screening, triage, and treatment of larger, more complex lesions. CHAI offered targeted mentorship and supportive supervision to ensure service quality and provider confidence, especially in the treatment of precancerous lesions, where service provision gaps existed. Unitaids provided funding for 25 counties through CHAI, while the United States Agency for International Development (USAID) and Global Fund (GF) partnership, through the MOH/NCCP, extended support to the remaining 22 counties to maximize coverage across the country. Not all facilities across the 25 counties received HPV tests. The initial phase was HPV pilot sites in 6 counties (9 sites) that received some kits before scaling HPV screening to 31 sites. County referral hospitals and some high-volume subcounty hospitals, totalling 31 sites (facilities) that received the tests, and the respective counties coordinated sample collection from lower-level facilities and transport logistics to testing labs, leveraging the HIV transport network. Further capacity building was provided at the pre-service level, where faculty members from 51 Kenya Medical and Teaching Colleges (KMTCC) were trained as a way of initiating the process of deploying personnel (mainly nurses and clinical officers) with updated knowledge on cervical cancer screening and treatment of PCLs.

Phase III (2024): Community-Based Self-Sampling (CBSS) demonstration project evaluated three HPV self-sampling delivery models—door-to-door (D2D), facility-based, and community outreach—across six Kenyan counties (April–October 2025), aimed at increasing access to HPV screening among hard-to-reach populations through the utilization of Community Health Promoters (CHPs) in the distribution of self-sampling kits. This model was designed to create awareness and demand while addressing barriers to screening, such as distance to facilities, cultural hesitations, and low community awareness of cervical cancer. CBSS enrolled over 4,600 women in the analysis population, among whom 4,068 women had valid results. HPV positivity was 15.9%; 160 women (3.5% of those tested) were positive for high-risk genotypes 16/18 and thus triage-eligible. The primary endpoint—VIA/VILI triage within six months of result disclosure—was met by only 62 of 160 women (38.8%). The central finding was a major service delivery gap: although 70% of eligible women were linked to triage (given an appointment), 26.2% were booked but never received the confirmatory test, a gap most pronounced in D2D (83% of these cases). Among 28 VIA-positive women, 23 (82%) received treatment. D2D reached the most first-time screeners (91.5%), while community outreach showed the highest triage

197 The second National Health Sector Strategic Plan (NHSSP II: 2005-2010)

198 The Primary Health Care Act, Act No 13 of 2023, accessed at <https://new.kenyalaw.org/akn/ke/act/2023/13/eng@2023-11-24>

rate (69.2%), though this reflected a single high-performing referral facility rather than the model itself. Active notification (home visits, 63.9%) substantially outperformed SMS (8.3%). Triage rates and invalid-result rates varied widely by county. The findings indicate that self-sampling is feasible, but closing the "linked-but-not-triaged" gap through better facility-level coordination is the priority for improving outcomes.

Table 7: Unitaid CxCa technology procurement support to Kenya 2019-2025

Technology	Numbers procured	Procurement and distribution notes	Prices
HPV tests	~70,000	Procured from Roche, Abbott, and Cepheid. UNICEF managed international procurement and importation. CHAI warehoused and distributed tests to project sites. Distributed to 31 sites (facilities), 22 point-of-care sites, and 9 conventional labs. First dispatch was of a uniform 500, followed by replenishment based on consumption. In total, ~60,000 women benefited from the HPV tests procured. The balance (10,000) was used for training and QA/QC. Stockouts occurred after depletion of UNITAID project-funded tests	Roche \$7.90 ¹⁹⁹ , Abbott \$6.24 ²⁰⁰ , Cepheid \$14.90, Hologic \$9.00 ²⁰¹
TA devices	~1200	Procured through CHAI, distributed to high-volume facilities (Level 2–6) Allocation based on: High screening volume; High VIA positivity; Availability of trained HCWs.	\$850
LEEP	~150	Procured through CHAI - distributed to 145 Level 4 to Level 6 health facilities with specialized cadres of staff.	\$1,500
Colposcopy machines	~30	Procured through CHAI – distributed to 28 Level 5 facilities to complement LEEP procedures.	\$1,800

2.2 OBJECTIVES AND METHODS OF THE COUNTRY CASE STUDY

¹⁹⁹ Pricing for <50k tests, \$6.90 for 50-250k, and \$5.90 >250k

²⁰⁰ Instrument included \$7.99

²⁰¹ All-inclusive

2.2.1 OBJECTIVES, HYPOTHESES AND LEARNING THEMES

The two specific objectives of the global evaluation are to²⁰²:

1. **Assess the catalytic impact** of Unitaid-supported programmes to accelerate cervical cancer elimination through secondary prevention in the 2019–2025 period.
2. **Synthesise actionable insights** to shape impactful, scalable, and sustainable investments to accelerate progress towards elimination of cervical cancer.

This case study seeks to understand the extent to which **interventions have achieved their intended outcomes** in Kenya. Second, the evaluation case study covers **learning at the country level**. This covers market shaping, including cost drivers of interventions, financing approaches, and market dynamics. It also covers factors that drive scale-up of cervical cancer services, including linking of screening to treatment, commodity distribution and utilization, gaps in real-world data, and engagement with women and communities affected by cervical cancer.

Table 2 highlights the evaluation questions and related learning themes, while Table 3 provides an overview of the six hypotheses tested by the case study.

Table 8: Evaluation questions and learning themes

Key evaluation questions	Specific evaluation questions	Links with Learning themes
1. Is the cervical cancer prevention portfolio responsive to needs and contexts?	EQ1.1 Did the cervical cancer programmes respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?	n/a
	EQ1.2. How did Unitaid's cervical cancer interventions interact with those of other partners and broader systems? ²⁰³	n/a
	EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in cervical cancer screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?	Leave No One Behind
2. Did the portfolio achieve intended outcomes?	EQ 2.1 To what extent and through what mechanisms did Unitaid's interventions achieve their intended results?	Service delivery models & commodity supply; Continuum of care; Programming at scale
	EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?	Continuum of care Also: Service delivery models and commodity supply

²⁰² See Annex 8, TOR

²⁰³ Relates to comparative advantage of Unitaid.

Key evaluation questions	Specific evaluation questions	Links with Learning themes
	EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-collection & provider, AI-AVE and TA), and what barriers have they faced in accessing or using them?	Service delivery models and commodity supply Also: Continuum of care, Leave No One Behind
	EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of cervical cancer screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?	Service delivery models and commodity supply Also: Programming at scale
3. Are services and tools adopted and integrated in global and national strategies?	EQ3.1 Are the gains from the Unitaïd supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd's contributions beyond the project period?	Programming at scale, Sustainable financing Also: Service delivery models and commodity supply
	EQ3.2 Which financing approaches, across public, private, and donor sources, are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?	Sustainable financing Also: Programming at scale; Service delivery models and commodity supply
	EQ3.3 Were best practices from early-adopter countries applied to accelerate cervical cancer programming in other countries?	South-South learning Also: Service delivery models and commodity supply; Continuum of care; Programming at scale; Leave No One Behind
4. Is the portfolio implemented efficiently?	EQ4.1 How timely, cost-efficient, and cost-effective was implementation (considering both allocative efficiency and technical efficiency) and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts? ²⁰⁴	Service delivery models and commodity supply
	EQ 4.2. Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments? ²⁰⁵	South-South learning
	EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?	n/a

²⁰⁴ Full value for money exercise was outside the scope of this evaluation.

²⁰⁵ Focus on the portfolio-wide learning. Intervention or country-level learning is addressed throughout the EQs

Table 9: Summary of evaluation hypotheses and linkages to EQs and learning themes

Hypothesis title	Hypothesis in brief	Key EQs	Learning themes
H1: Community delivery & self-sampling	Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	EQ2.1, 2.3, 1.3	1, 3
H2: Integrated service delivery & same-day treat	Integration into existing services and/or same-day testing/treatment triggers client convenience and health care worker confidence, reducing LTFU	EQ2.1, 2.2, 2.3	1, 2
H3: Technology introduction & health care worker capability	AI-AVE and HPV DNA testing increase health care worker diagnostic confidence, improving continuity of care	EQ2.1, 2.3	1
H4: Proof of concept & national adoption	Proof of concept from 'champion countries' triggers national government buy-in, leading to policy and budget inclusion	EQ2.1, 3.1, 3.3	4
H5: Market shaping & price reduction	Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	EQ2.4, 3.1, 3.2	1, 5
H6: South-South learning & diffusion	Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	EQ3.3, 4.2	6

2.2.2 METHODS AND LIMITATIONS

Data collection methods

Aligned with the mixed-methods design of the overall evaluation, data were collected using a range of different data sources, this included secondary data (document review) and primary data (key informant interviews, focus group discussions, and observations at site visits).

The document review entailed of a structured review of laws and legal documents^{206 207 208}, Unitaaid and implementing partners' programme documents, national guidelines and policy documents^{209 210 211 212 213 214 215}, Global and national cancer control strategies and reports, peer-reviewed research articles²¹⁶

206 The Kenya Primary Healthcare Act No. 13 of 2023

207 Facilities Improvement Financing Act No. 14 of 2023

208 Social Health Insurance Act No. 16 of 2023

209 The National Cervical Cancer Elimination Action Plan (NCCEAP)

210 The Kenya National Cancer Screening and Early Diagnosis Guidelines – second edition

211 The Kenya National Cancer Control Strategy (2023–2027)

212 The Kenya National Cancer Control Monitoring, Evaluation, Accountability and Learning (MEAL) Framework 2023-2027

213 The Kenya National Cancer Treatment Protocols

214 The Kenya National Protocols for Management of Selected Non-Communicable Diseases at Primary Care Setting

215 The Kenya National Radiotherapy Treatment Protocols

216 Misinformation Affected Kenya's HPV Vaccine Uptake." <https://www.theelephant.info/analysis/2023/10/10/unmasking-the-silent->

²¹⁷ ²¹⁸, CHAI Programme implementation reports, research studies, and operational analyses.

The case study entailed 20 *Key Informant Interviews (KIIs)* with purposively selected stakeholders across the health system. Selection was done to ensure representation across national and county leadership, implementing partners, service delivery actors, and civil society organizations engaged in cervical cancer prevention. This included: Ministry of Health (National Cancer Control Programme, Reproductive Health Division), County health teams, CHAI, Facility-level health care providers, Civil society organizations, Donor agencies, and other partners including from Jhpiego, PEPFAR and UN.

Facility-level insights were gathered through site visits to selected laboratories, supply chain hubs, and treatment facilities²¹⁹ to capture frontline perspectives and observe service delivery processes. A total of 9 counties (Machakos, Nairobi, Kiambu, Marsabit, Meru, Mombasa, Nakuru, Kisumu and Kisii) and 5 health facilities Thika Level 5, Kisii Level 6, Magathi Hospital, Mama Lucy Hospital, Machakos L5 were visited.

Community perspectives were captured through three focus group discussions (FGDs) with 21 women who accessed screening services and with 8 community health actors, including community health promoters (CHPs), involved in demand creation and referral.

See Annex 1 for a list of key stakeholders interviewed and consulted through FGDs.

Data analysis methods

Data were analyzed using a mixed-methods approach that combined qualitative and quantitative techniques.

Qualitative data from KIIs, FGDs, facility observation and document review were examined through structured content analysis, using a coding framework aligned with the evaluation questions to identify patterns, recurring themes, and explanatory mechanisms. Findings were validated through triangulation across data sources, respondent groups, and methods to enhance credibility and resolve inconsistencies.

Quantitative programme data were assessed through trend analysis to track changes in screening volumes, cascade performance, commodity availability, and county-level variation over time.

Descriptive and comparative statistics were applied where relevant to quantify system gaps and performance differences between service models. Insights from both qualitative and quantitative strands were synthesized to test the evaluation hypotheses and generate robust findings and conclusions.

Limitations and mitigation strategies

saboteurhow-misinformation-affected-kenyas-hpv-vaccine-uptake. Published October 10, 2023

217 Mwenda, V., Bor, J.-P., Nyangasi, M., Njeru, J., Olwande, S., Njiri, P., Arbyn, M., Weyers, S., Tummers, P., & Temmerman, M. (2023). Integrating human papillomavirus testing as a point-of care service using GeneXpert platforms: Findings and lessons from a Kenyan pilot study (2019–2020). *PLOS ONE*, 18(5), e0286202. <https://doi.org/10.1371/journal.pone.0286202>

218 Mwenda, V., Bor, J.-P., Nyangasi, M., & Temmerman, M. (2022). Mobilizing stakeholders to drive the cervical cancer elimination agenda in Kenya: The national cervical cancer stakeholders' forum 2022. *Dialogues in health*, 1, 100066. <https://doi.org/10.1016/j.dialog.2022.100066>

219 Thika Level 5, Kisii Level 6, Magathi Hospital, Mama Lucy Hospital, Machakos L5

The table below presents key limitations and mitigation measures applied.

Table 10: Limitations and mitigations

Limitation	Mitigation
Incomplete or variable routine data: Cervical cancer programme data were inconsistent across counties, with gaps in cascade reporting, parallel tools, and missing follow-up outcomes for HPV-positive women	The evaluator triangulated routine data with KIIs, supervision reports, and implementing partner datasets; trend analysis conducted only where data quality met minimum reliability thresholds
Respondents may have provided socially desirable responses or relied on incomplete recall, especially when discussing historical implementation issues	Interviewed multiple stakeholders at national, county, facility, and community levels; cross-checked responses through triangulation to validate consistency
Multiple partners support cervical cancer programmes in Kenya, making it difficult to attribute outcomes solely to Unitaids-supported activities	Focused analysis on specific innovations, systems investments, and models directly linked to Unitaids contribution; used stakeholder validation to clarify attribution and contribution boundaries
Ongoing national reforms, updates to guidelines, and supply chain transitions influenced programme performance during the evaluation period	Interpreted findings with awareness of contextual shifts; used trend analysis to separate structural issues from transitional implementation challenges.
Limited access to detailed costing and domestic financing data constrained the assessment of long-term sustainability	Relied on policy documents, partner financial reports, and stakeholder perspectives to infer financing gaps and sustainability risks.

2.3 FINDINGS AND LESSONS

2.3.1 RESPONSIVENESS OF THE PROGRAMME TO NEEDS AND CONTEXTS (EQ 1)

EQ1.1 Did the cervical cancer programme respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?

The programme strongly aligned with national needs, but design assumptions did not fully anticipate on-the-ground health system constraints. Unitaids-supported cervical cancer interventions in Kenya were highly responsive to the country's urgent need to transition from low-sensitivity VIA screening to high-performance HPV DNA testing.²²⁰

KIIs consistently highlighted that HPV screening “*came at the right time*”²²¹ and directly addressed county-level service gaps. However, design assumptions underestimated systemic and structural barriers, including commodity stockouts of support equipment and supplies such as speculums, gloves (which were to be procured by county funds), and human resources shortages necessitated by huge staff turnovers due to brain drain and search for “*greener pastures*”²²², supply chain barriers and weak referral systems from community/outreaches to primary healthcare facilities (levels 1 – 3) and between these lower-level health facilities and higher-level treatment facilities (levels 4 – 6) along the cervical cancer cascade. These barriers constrained cascade completion during the project implementation.

Although Kenya has expanded screening services nationally, coverage remains below the WHO elimination target of 70%. National data on CaCx screening prevalence indicated that only 14% of eligible women had ever been screened for cervical cancer in 2014²²³. CHAI implementation through Unitaids' investments had helped increase the screening coverage to 48% by 2024 and a further 52% by end of 2025. However, HPV-based screening coverage remained at approximately 6%, highlighting ongoing scale-up challenges as a result of inadequate procurement of the tests due to lack of financial allocation for procurement.²²⁴ County officials and facility providers reported that “*the model assumed readiness that counties didn't have,*”²²⁵ indicating a mismatch between design expectations and actual system capacity. While the programmes successfully integrated HPV screening into existing HIV, reproductive health, and family planning systems, the reliance on donors for health worker capacity building, supervision, mentorships and other consumables such as gloves and speculums limited reach in all supported counties.^{226 227}

These gaps highlight the need for more context-specific design and adaptations, especially in resource-constrained settings, as well as more robust readiness assessments before introducing such programmes.

220 Ministry of Health, Human Papillomavirus (HPV)-based Cervical Cancer Screening Pilot in Kenya Final Evaluation Report 2021/2021, KIIs with County NCD Coordinators Kisii, Machakos, Meru and Mombasa Counties and Master trainer

221 Nairobi, Kiambu, Kisii, Mombasa and Kisumu KIIs

222 KII with Master trainer

223 KDHS report 2014

224 The Kenya's National Cervical Cancer Elimination Action Plan (2025–2030)

225 Kisumu and Kiambu county KIIs

226 KII Kisumu County

227 KII Machakos County

EQ1.2. How did Unitaids' cervical cancer interventions interact with those of other partners and broader systems.

Overall, Unitaids' interventions complemented the GoK's MoH²²⁸, county²²⁹ and partner investments despite partner coordination challenges in some counties. ²³⁰ The initiative interacted positively with investments from the GoK's MoH, county departments of health, national technical working groups, partners such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Bill & Melinda Gates Foundation, and other CHAI interventions. Integration into HIV, maternal, neonatal and child health (MNCH) clinics, and family planning (FP) platforms leveraged existing national, county and partner-supported footprints. Yet KIIs²³¹ revealed coordination gaps in areas such as supply-chain alignment and overlapping trainings, with some implementers noting "*parallel tools and parallel supervision still exist.*" However, this overlap largely developed as the cervical cancer field expanded and multiple partners adopted similar delivery approaches, leaving parallel tools and supervision structures in place where alignment mechanisms had not yet caught up. Some facilities reported using electronic medical records (EMRs) which were not interoperable with the KHIS2, resulting in loss of data when reporting, while others, like the KDF, have their own special database used to record military-specific medical data, that's not publicly visible on KHIS-2. The transition of KHIS2 data from MOH servers to DHA servers in 2025 further complicated the reporting process and led to additional data. These inefficiencies limited programme synergies despite generally strong partner relationships.

EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in cervical cancer screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?

Gender norms significantly shaped screening uptake and follow-up, but structured gender integration in design remained limited. ²³² Gender roles affected access and continuity of care, with KIIs noting that many women required spousal permission for screening and faced stigma for attending clinics alone. Women also bore caregiving burdens that reduced time for follow-up visits. Several possible barriers to accessing cervical cancer screening services were highlighted during the FGDs and KIIs. Embarrassment from being screened by a male healthcare provider was the most frequently mentioned barrier to cervical cancer screening, as expressed in an FGD with beneficiary women "*I'd even go and climb the bed, but then fear would sweep through me out of nowhere and instruct the doctor to stop at that moment*"²³³. Female health workers improved acceptability, particularly for pelvic exams. The programme design partially addressed gender barriers through introducing self-sampling methods and community mobilisation, but KIIs indicated that "*gender considerations weren't fully systematic*,"²³⁴ suggesting a need for more explicit gender-responsive analyses and corresponding strategies in subsequent phases to address specific population needs such as sex workers and male partners (for more details refer to section on Leave No One Behind (LNOB), equity & gender barriers pp22).

²²⁸ KII with head of the Kenya National cancer control programme

²²⁹ KII with Kisumu CeC Health, Kisii, Mombasa, Meru, Kiambu, Machakos, Kakamega and Marsabit County RH/NCD Coordinators

²³⁰ KII with KEMRI, CIHEB, JHPIEGO, Kisii and Mombasa County NCD Coordinators

²³¹ Department of Defense KII, CIHEB and JHPIEGO

²³² KII with Mombasa, Marsabit and Meru county NCD/RH Coordinators and FGD with CHWs and WLHIV

²³³ Kiambu Level 5 FGD

²³⁴ KENCO, Master Trainer KIIs, KIIs with Marsabit, Meru, Mombasa and Kisii RH/NCD coordinators and FGD with community actors

2.3.2 KEY ACHIEVEMENTS AND RESULTS OF THE UNITAID SUPPORTED ACTIVITIES (EQ2)

EQ 2.1 To what extent and through what mechanisms did Unitaids interventions achieve their intended results?

The programme improved cervical cancer secondary prevention through technology introduction, service integration, workforce strengthening and community mobilization. VIA continues to dominate as the main cervical cancer screening method across project-supported counties, whereas TA deployment was more rapidly scaled.²³⁵ Through a combination of the introduction of innovative technologies, health system strengthening, capacity building, and support for service delivery integration, the programme contributed to improvements in cervical cancer screening and precancerous treatment across the 25 supported counties. The most visible achievement was the dramatic expansion of screening services. Between 2019 and 2025, approximately 3.4 million women were screened for cervical cancer across the supported counties against a target of 5 million women. Annual screening volumes increased from 286,432 women in 2019 to 766,373 women in 2024, representing a 168% increase over the implementation period and a 62% achievement.²³⁶ However, in total, 88% of the CxCa screenings was done through VIA over the period 2019-2025, with only 5% of the total screenings performed through HPV testing and the remaining with PAP smear.²³⁷

The expansion was facilitated through the integration of cervical cancer screening within HIV and reproductive health services, provider training, introduction of HPV DNA testing, self-sampling methods, and strengthened community mobilization. Unitaids support accelerated the transition from VIA screening to HPV DNA testing, the WHO-recommended screening method. KIIs described these tools and innovations as “game changers”²³⁸ that improved accuracy and acceptability. The number of HPV tests conducted increased 9-fold from 5,076 in 2019 to 46,597 in 2025²³⁹. This 9-fold figure reflects the change in annual testing volume between the first and final years of the grant, rather than the cumulative total; across the full period, Kenya conducted over 157,000 HPV tests, including approximately 70,000 procured under the grant across the 31 project sites. This was achieved through efforts that improved affordability and availability of HPV tests, support for laboratory systems, and the introduction of innovative and efficient approaches such as self-sampling. Across the implementation period, more than 103,380 women screened positive in the primary screening test (either through VIA, HPV test, or PAP smear), while 26,312 women were identified with suspicious lesions requiring further assessment and treatment²⁴⁰. Programme reports showed significant increases in first-time screeners and improved the diagnostic yield through a combination of technological and service-delivery mechanisms. These results demonstrated a three-fold (318%) increase in case detection from 5,713 cases to 23,873 cases in 2019 and 2024 respectively, and, additionally a 65% increase in the ability of the health system to identify women at risk of developing cervical cancer from 2,242 in 2019 to 5,960 in 2024.

Significant progress was also observed in access to cervical cancer precancerous treatment. Deployment of more than 1,200 TA devices through Unitaids support drove rapid expansion of

235 KII with the head of the national cancer control programme and CHAI project staff

236 CHAI Project progress reports 2019 - 2024

237 CHAI project progress report, KII with Head National Cancer Control Programme, CIHEB, JHPIEGO and Kisumu County CeC Health

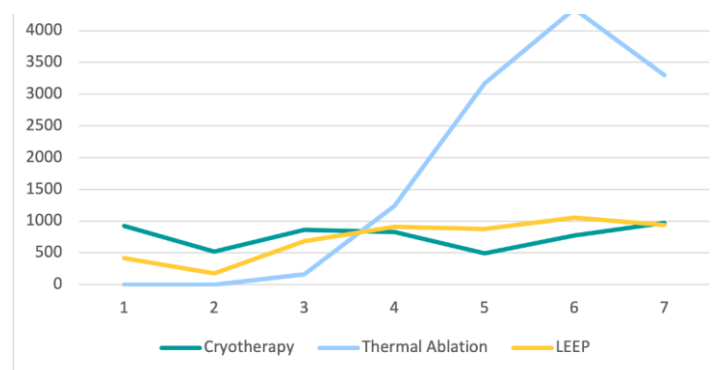
238 CHAI project staff KII, Master Trainer KII

239 CHAI project progress reports

240 CHAI project progress reports

precancerous treatment methods across counties. Prior to programme implementation, access to TA was extremely limited. Following the introduction of TA technologies and deployment of 1200 TA devices, annual treatment volumes increased from virtually zero in 2019 and 2020 to 4,344 procedures in 2024 and 3301 in 2025. Cumulatively, over 12,000 women received TA treatment over the period 2019-2025, while more than 5,000 women received LEEP procedures. In addition, over 5,300 women received cryotherapy with a relatively stable number of women treated with this method over the years of the review. These achievements were supported through provider training and mentorship, and strengthening of referral pathways. Figure 1 below illustrates how thermal ablation uptake grew from zero in years 1 and 2 (2019-2020) to over 4,300 procedures by the end of project implementation in year 6 (2024), while cryotherapy and LEEP remained relatively constant at below 1,000 procedures annually (Figure 1).

Figure 1: Annual cervical cancer treatment uptake over the project implementation period 2019-2025, 25 counties.

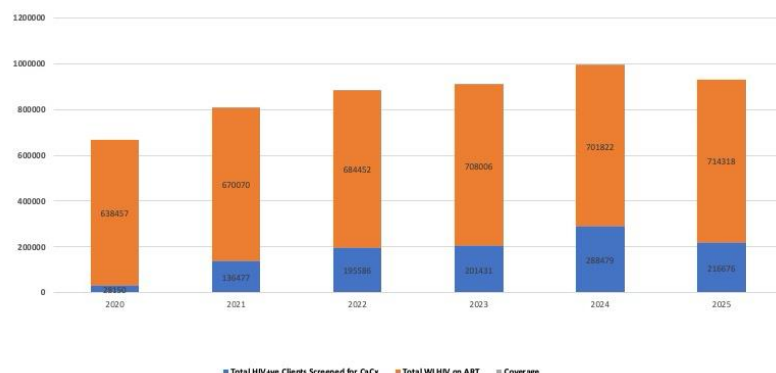


Source: Programme data from 25 project counties shared by CHAI

See further details on constraints related to TA deployment described under section EQ 2.4. The focus on integrating service delivery models was particularly noted for HIV and MNCH. The average proportion of women living with HIV (WLHIV) on ART across 25 Unitaaid CHAI-supported counties, as shown below, who received cervical cancer screening was 20% in 2021, increasing to 41% in 2024 while decreasing to 30% in 2025 (Figure 2), with similar trends observed in national data sets. This implies that integration was pursued and promoted across the entire country over this period and not only in CHAI-supported counties. It also highlights that there is scope to further integrate screening services for WLHIV as the highest-risk population and the downward trend across all counties in the country since the pull-out of US support.

Figure 2: WLHIV CxCa screening, 2020-2025 across 25 project counties

Despite meaningful gains, several systemic challenges persist. According to KIIs, loss to follow-up



between HPV testing and triage remains significant, but without robust quantitative data being available to triangulate. Referral, tracking, and patient navigation systems for HPV-positive women vary widely across counties. Stockouts of HPV test kits and related consumables have disrupted service continuity, while staffing shortages and turnover constrained the delivery of same-day testing and treatment. In addition, fragmented data systems, with parallel reporting tools (the MOH tools were revised and updated, but new versions coexisted with old versions for a while, leading to some data losses) and incomplete KHIS2 integration, continue to limit effective monitoring, planning, and resource allocation. Sustainability also remains a critical issue. Although donor-supported initiatives have catalyzed innovation, domestic financing for HPV testing, consumables, and treatment services is limited, and counties remain dependent on partner-driven procurement and operational support.

EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?

Overall cascade completion remained a challenge to assess due to reporting practices and data gaps, however, data indicate that deployment of TA devices increased treatment rates of suspicious cancer lesions.²⁴¹ The project supported HPV screening of more than 3.4 million women in 7 years across 25 counties against a target of 1 million women screened per year. Data on the cascade is challenging to interpret. The number of women undertaking VIA for triage is not disaggregated from the normal VIA procedure done for routine screening on KHIS-2, which prevents analysis of attrition along the cascade from HPV screening to triage. Across the implementation period, out of a total of >70,000 VIA-positive women, only about 22,000 (31%) accessed PCL treatment (Table 5). National guidelines state that once a woman undergoes triage (with VIA), all those who have lesions <75% covering the cervix are eligible for cryotherapy or TA, and those whose lesions cover >75% of the cervix are eligible for LEEP. In most L4, L5, and L6 facilities where LEEP cases are managed, procedures are typically performed in the theatre, and some of this data is lost because it is not captured in the routine tools (MoH 711 and 745).

241 CHAI program data across project implementation

In addition to the PCL cases identified, the project detected and referred over 26,000 cases suspicious for cancer for further evaluation and management — an outcome beyond the original scope of implementation. Table 5 presents the national health information system data received for 25 counties supported by Unitaid.

Table 11: Cervical cancer cascade data 2019-2025 across 25 counties²⁴²

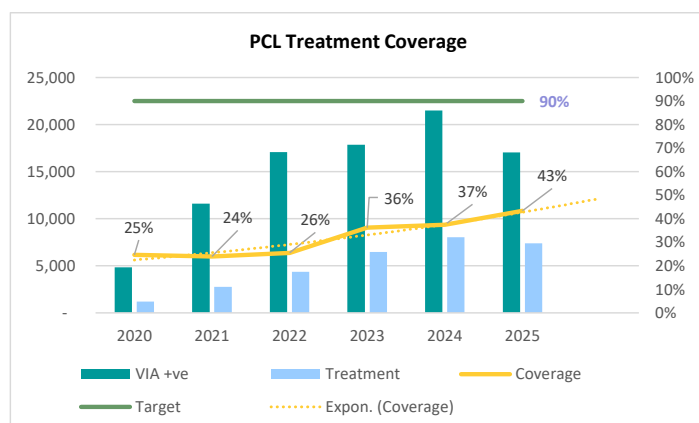
Year	Screening			Positivity			Lesions	Treatment
	VIA screening	HPV screening	PAP smear	VIA+	HPV +	PAP +	Suspicious cancer lesions	Total Treatment (Cryo,TA, LEEP)
2019	257,280	5,076	24,076	5,114	178	421	2,242	1,342
2020	195,516	8,425	28,009	3,547	1,079	813	1,749	703
2021	355,443	12,693	22,840	8,285	1,565	632	2,872	1,710
2022	448,318	24,644	25,262	11,797	3,295	1,561	3,543	2,981
2023	506,375	29,347	31,076	12,178	4,803	1,350	4,653	4,539
2024	686,194	30,637	49,542	15,641	6,661	1,571	5,960	6,173
2025	565,332	46,597	49,672	13,756	7,643	1,490	5,293	5,215
Total	3,014,458	157,419	230,477	70,318	25,224	7838	26,312	22,663

Source: Programme data from 25 project counties shared by CHAI

The number of women undergoing triage is not reported in national data, as the reported data on KHIS-2 doesn't disaggregate women who undergo triage with VIA, and those who undergo VIA as a routine screening method, and this affected quantitative data analysis of attrition across the cascade. The treatment rate of suspicious cancer lesions, however, improved over the project period from 60% in 2019 to almost 100% in 2025 (Figure 3). It is important to note, however, that treatment of suspicious lesions for cancer is not from the screen and treat registers (and aggregates) and that there exist delays in actual initiation of cancer treatment. So not all cancer treatments in a year are from women screened in the same year.

242 CHAI program data across project implementation

Figure 3: Treatment of precancerous cancer lesions across 25 counties, 2019-2025



Source: Programme data from 25 project counties shared by CHAI

Key informant interviews and FGD data indicate that Screening-to-treatment continuity improved where same-day treatment was available, yet data gaps and limitations restricted triangulation. Several facilities lacked structured client follow-up and navigation mechanisms, contributing to persistent loss to follow-up despite strong initial screening uptake. KIIs noted that “same-day treatment is the only way we avoid losing women.”²⁴³ Where referral systems were weak or devices unavailable, large attrition occurred between receipt of HPV-positive results and triage/treatment. Counties with functional TA devices achieved markedly higher treatment completion.

EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-collection & provider, and TA) and what barriers have they faced in accessing or using them?²⁴⁴

Women and service providers expressed high levels of satisfaction with new tools, but faced barriers including stockouts, workload, high staff turnover, and device downtimes.²⁴⁵ In FGDs with women who had benefited from the tools and services and during KIIs with service providers, self-sampling was consistently praised for increasing the desired privacy, while at the same time offering convenience, especially in community outreach settings. Providers valued HPV tests due to clarity and reduced subjectivity compared to VIA. However, KIIs and FGDs highlighted health systems challenges including inadequate trained staff resulting from high staff turnovers “about half of county’s facilities are private or faith-based, many of which have high staff turnover and inconsistent screening quality”²⁴⁶, frequent stock outs of speculums and other consumables like gloves, lack of HPV DNA testing kits²⁴⁷, and a lack of private screening rooms. Some communities resisted screening due to

243 KENCO and Mombasa County KII

244 Please note that AI-AVE was not introduced in Kenya and therefore no findings on this

245 Ministry of Health, Human Papillomavirus (HPV)-based Cervical Cancer Screening Pilot in Kenya Final Evaluation Report 2021/2021, FGD with WLHV and CHWs and KII with facility in-charges for Kisii Level 5 and Thika Level 5 hospitals

246 NCCP, Kisii and Kisumu County KII

247 MoH NCD KII

privacy concerns, suggesting self-sampling for HPV as a solution.²⁴⁸

Unreliable electricity and seasonal flooding had also affected access to health facilities, especially around Kisumu, Homabay and Mombasa, as well as a lack of equipment and trained staff to treat precancerous lesions in all facilities, and the inability to reach clients once results are available or to track their referral to tertiary facilities. Some providers mentioned, “*we lack enough staff and equipment, so even when results are ready, treatment cannot start immediately*”²⁴⁹ while others reported “*tool fatigue*”²⁵⁰ due to multiple parallel systems, with some facilities and entities using electronic medical records (EMRs), which results in gaps and data loss when reporting to the Kenya Health Information System (KHIS2).²⁵¹ The Digital Health Authority is working to make KHIS2 interoperable with different EMRs, with the sole goal of collapsing all EMRs to a national one (Taifa Care EMR).

EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of cervical cancer screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?

Efficiency of TA deployment was compromised by health worker turnaround, regulatory delays, commodity insecurity, and procurement constraints. TA and HPV test pricing became more favourable through global market-shaping efforts led by Unitaid/CHAI, with potential to expand access for low-income countries. However, KIIs reported procurement bottlenecks due to approval timelines and supplier delays, and health care worker turnover. Stockouts of test kits, reagents, and other support commodities such as gloves and speculums reflected upstream procurement challenges and constrained supply chain capacity.

Over the project period, thermal ablation emerged as the dominant treatment modality of precancerous lesions (accounting for over 50% of PCL treatments) following its introduction, increasing from virtually zero use in 2019–2020 to more than a cumulative of 12,000 procedures conducted cumulatively by the end of the project with the Unitaid-funded TA devices. This represents one of the clearest indications of innovation adoption and scale-up attributable to investments in secondary prevention (cross-reference section of sustainability on pp 24 below). This is illustrated below in Figure 4.

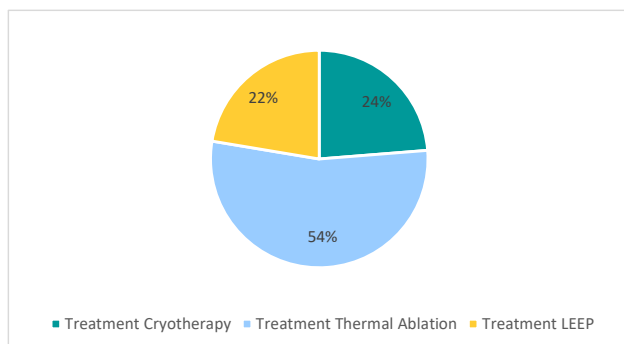
248 CHAI KII with Unitaid project staff

249 Marsabit County NCD Coordinator KII

250 Master Trainer KII

251 KII the KDF

Figure 4: CxCa treatment modalities- suspicious lesions, 2019-2025 in 25 supported counties²⁵²



Source: KHIS-2 Data (2019-2025)–

Reported constraints for TA deployment were related to significant health worker turnover or attrition, while also recognizing that provider hesitancy in device use requires ongoing mentorship. While TA devices were praised for ease of use, some KIIs from Kisii, Kisumu, Machakos and Mombasa noted downtime due to lack of spare parts, battery charging challenges after prolonged non-use, inadequate maintenance plans, and insufficient numbers relative to caseload. However, in a conversation with the CHAI program team, it was noted that, unlike many typical medical devices that have well-defined routine maintenance plans, the standard practice with TA devices is that if a device malfunctions, it should be replaced, except for minor troubleshooting like restarting or charging from a different power source.

2.3.3 INTEGRATION OF SERVICES AND TOOLS IN NATIONAL STRATEGIES (EQ3)

EQ3.1 Are the gains from the Unitaids supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaids' contributions beyond the project period?

Gains are promising but not yet fully sustainable due to low Social Health Authority (SHA) capitation, financing gaps and uneven county readiness.²⁵³ National policies²⁵⁴ informed largely by the pilot findings by Unitaids/CHAI as well as scale-up phase efforts now fully endorse HPV testing, and counties have embraced integrated service delivery. There is strong alignment with national guidelines and contribution to policy shifts toward HPV-based screening. Yet, KIIs stressed that “without domestic funding for kits, it cannot continue.”²⁵⁵ and “Kenya has not met the Abuja Declaration target of allocating 15% of its budget to healthcare, limiting domestic funding for equipment and program

²⁵² CHAI Project progress report data

²⁵³ KII with Mater trainers, Mombasa, Kiambu, Kisii, Kisumu and Marsabit County NCD/RH Coordinators

²⁵⁴ Kenya's National Cervical Cancer Elimination Action Plan (2026–2030), National Cancer Screening Guidelines 2024

²⁵⁵ MoH NCD and Kisii County KIIs

continuation.”²⁵⁶

Since 2013, health has been a devolved function in Kenya; therefore, these components are to be procured by facilities or counties. County health budgets remain limited, and most health facilities have yet to benefit from the Facility Improvement Fund Act operationalization. Domestic financing mechanisms such as the Primary Health Care Fund under SHA have not yet adjusted to fully cover the cost of screening, HPV testing, and precancerous treatment at all levels of the healthcare system.²⁵⁷ While the inclusion of cervical cancer care within the social health authority service package marks a great milestone, the capitation remains limited to a maximum of KSh 3,800 (30 USD) for both screening and treatment, with screening for cervical cancer only covering women aged 25–49 years, while HPV screening targeting women 30–49 years and the insurance, SHA, only covers women for at least two screening episodes within the screening age bracket – ideally at ages 35 and 45 years. Compare this with an HPV kit plus related consumables (complete to conduct a test) costing in the range of \$10–\$16 across different suppliers, and landed costs (cold chain, storage facilities, sample transportation, health care workers and CHV, lab staff, maintenance. KIs with county department of health leadership indicated that “counties want to budget but don’t have fiscal space,” noting that “County budgets for cervical cancer are modest, affecting scale and reach”²⁵⁸ pointing to the need for pooled procurement, insurance integration, or subsidy models.

Scalability and sustainability are hindered by heavy reliance on donor-funded commodities and workforce support and counties vary significantly in readiness, creating uneven potential for scaled sustainability. In 2025, procurements of HPV tests were complemented by the Global Fund (via NASCOP earmarked for WLHIV), which allowed procurement of ~60,000 tests procured in 2025; in addition, another ~87,000 tests are currently on order (expected this year) supported by the Global Fund. Yet, the current HPV supply through the Global Fund has been intermittent, and stockouts occurred after depletion of UNITAID project-funded tests in 2025, which caused reverting to VIA from HPV primary screening. It remains unclear whether cervical cancer screening and treatment commodities will be explicitly prioritized within the country’s next Global Fund funding request (GC8). At the time of this evaluation, stakeholders expressed uncertainty regarding the extent to which cervical cancer interventions will be financed through future Global Fund investments, highlighting a potential risk to the continuity and scale-up of HPV testing services if alternative financing mechanisms are not secured. In relation to TA devices, Kenya never procured any additional TA devices but relied on what was procured and distributed by Unitaid through CHAI (see Table 1) and USAID

EQ3.2 Which financing approaches, across public, private, and donor sources, are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?

No single financing model is yet sufficient, as high commodity costs remain the primary driver limiting long-term affordability²⁵⁹. To date, procurement and market-shaping efforts for cervical cancer screening commodities in Kenya have been driven primarily by Unitaid through CHAI, alongside support from the Global Fund, PEPFAR through USAID-funded programmes, and technical assistance from the WHO. These investments have been instrumental in introducing and partially scaling HPV

256 Kenya Medical Training College (KMTTC) KII

257 The social health authority benefits package accessed at <https://health.go.ke/sites/default/files/2024-11/TARIFFS%20TO%20THE%20BENEFIT%20PACKAGE%20TO%20THE%20SHI.pdf>

258 KII with Kisumu County Executive for Health (CEC) and Machakos and Nairobi County NCD/RH Coordinators

259 The Kenya National Cervical Cancer Elimination Action Plan (2025–2030); KII with the head of the national cancer control programme

DNA testing, reducing commodity prices, and expanding access to TA and other secondary prevention technologies. While Kenya's National Cervical Cancer Elimination Action Plan 2025–2030 anticipates increased domestic financing and integration of HPV testing within national health financing mechanisms, concerns remain regarding the long-term sustainability of commodity financing as prices are still too high for HPV tests to allow domestic resourcing.

EQ3.3 Were best practices from early-adopter countries applied to accelerate cervical cancer programming in other countries?

Learning from early adopters was shared informally but not systematically leveraged across countries²⁶⁰. Kenya benefited from exposure to work in early-adopter countries, specifically Rwanda, Nigeria and South Africa, but KIIs suggested that learning exchanges were sporadic and largely partner (county)-driven rather than by Unitaids support. Formalised regional learning mechanisms were limited, reducing opportunities to fast-track adoption of best practices in cascade management, device deployment, and digital tools.

2.3.4 IMPLEMENTATION EFFICIENCY (EQ4)

EQ4.1 How timely, cost-efficient/ cost-effective was implementation and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts?

Implementation generated value for money by leveraging existing platforms, but efficiency was constrained by supply-chain disruptions and workforce gaps²⁶¹. Integration with HIV programmes enabled cost-effective reach, by leveraging existing infrastructure and human resources – for example, using the same lab staff and equipment/platforms, used for HIV viral load testing utilized to also conduct cervical cancer HPV testing. However, frequent stockouts of collection kits, lab reagents, gloves, along with healthcare worker training backlogs generated inefficiencies. KIIs highlighted that “staff time is wasted when kits aren’t available,” reducing implementation efficiency.

Integrated service delivery models, particularly linkage to HIV clinics supported by programmes such as PEPFAR, proved highly effective in reaching high-volume, high-risk populations. Use of GeneXpert platforms facilitated adoption but faced competition with other disease programs (e.g., TB, HIV) as these samples were given priority over HPV samples, further delaying TAT for HPV samples. KIIs consistently reported that integration into HIV, MNCH, and FP platforms “brought screening to where women already come,” driving efficiencies in both staffing and infrastructure. Community-based self-sampling further increased reach among rural and hard-to-reach populations, demonstrating strong acceptability and uptake. However, the effectiveness of these service delivery models was repeatedly constrained by commodity insecurity.

EQ 4.2 Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments?

Learning occurred, but lacked structured mechanisms for systematic capture and dissemination. Implementing partners shared lessons internally and through county review meetings, but KIIs noted a “gap in structured learning platforms.” Insights were not consistently documented or used to adjust

²⁶⁰ KII with Kisumu County Executive for Health (CEC) and Master Trainers

²⁶¹ KII with Kisumu county CeC Health, Master trainer and Department of Defence (DoD)

programming in real time, limiting adaptive management.

EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?

Risk management was reactive rather than proactive, with fragmented accountability for sustainability and supply chain risks. Risks related to procurement delays, device breakdowns, and funding uncertainties were often addressed after disruptions occurred. KIIs underscored that “*risk plans exist but are not actively used.*” More formalised, forward-looking risk monitoring systems are needed to mitigate predictable supply, workforce, and financial risks.

2.3.5 OVERVIEW OF KEY LESSONS FOR THE SIX LEARNING THEMES

Service delivery models and commodity supply

Integrated and community-based models substantially expanded access, but commodity insecurity undermined efficiency and continuity of service delivery.²⁶² The intervention responded to a substantial unmet need. Across the 25 focus counties, more than 3.4 million women were screened between 2019 and 2025, demonstrating significant demand for cervical cancer prevention services and supporting the continued prioritization of cervical cancer within Kenya's reproductive health and NCD agenda.²⁶³ Screening coverage expanded substantially during implementation, with annual screening volumes increasing from 286,432 women in 2019 to 766,373 women in 2024. HPV testing increased from 5,076 tests in 2019 to more than 30,000 tests in 2024 and 46,597 tests in 2025, indicating successful introduction and adoption of HPV-based screening technologies, while VIA continues to be vastly dominant for primary screening (88%).²⁶⁴

Integrated service delivery models, particularly linkage to HIV clinics also supported by programmes such as PEPFAR, proved highly effective in reaching high-volume, high-risk populations. Use of GeneXpert platforms facilitated adoption but faced competition with other disease programmes (e.g., TB, HIV). KIIs consistently reported that integration into HIV, MNCH, and FP platforms “*brought screening to where women already come,*” driving efficiencies in both staffing and infrastructure. However, some women in FDGs reported that when screening services were integrated with HIV services, they had a fear of community judgement which discouraged engagement with cervical cancer screening services.

Community-based self-sampling further increased reach among rural, marginalized, and hard-to-reach populations, demonstrating strong acceptability and uptake. However, the effectiveness of these service delivery models was repeatedly constrained by commodity insecurity. Counties experienced frequent stockouts of HPV test kits, cartridges, and thermal ablation related consumables due to supply chain gaps at multiple levels which undermines community trust and create inefficiencies. Thermal ablation devices were praised for ease of use, but KIIs noted downtime due to lack of spare parts, inadequate maintenance plans, and insufficient numbers relative to caseload. The fragmented

²⁶² Ministry of Health, national cancer control programme pilot study report; CHAI Project progress reports 2019 - 2025

²⁶³ ²⁶³ The National Cervical Cancer Elimination Action Plan (NCCCEAP);

²⁶⁴ CHAI project progress reports

logistics systems, across county stores, implementing partners, and central procurement, created inefficiencies that affected service reliability and continuity. This showed that market shaping alone is insufficient without system-wide readiness, quality, and system strengthening efforts.

Continuum of care

Same-day test and treatment improves cascade completion, while fragmented referral and follow-up systems cause persistent losses after positive screening²⁶⁵

Pilot implementation sites in the period 2020-2021 demonstrated that among women who tested positive for high-risk HPV subtypes, only 22.3% had evidence of VIA being done, which was way lower than the desired 90% linkage to further evaluation and/or treatment.²⁶⁶ The programme identified more than 103,000 women as screen positive across all methods, of whom approximately 70,000 were VIA-positive. Only ~22,000 (31%) accessed PCL treatment, while a further 26,000 women with lesions suspicious for cancer were referred to higher-level facilities for further evaluation and management. However, KHIS-2 does not disaggregate between women screened through VIA as a routine primary method and those screened by VIA as a triage step, which prevents analysis of attrition along the cascade from HPV screening to triage. Treatment capacity expanded considerably through deployment of TA devices, with annual procedures increasing from virtually none in 2019–2020 to over 4,300 procedures in 2024.^{267 268} The most consistent insight from KIIs was that same-day triage and TA are the strongest mechanisms for reducing loss to follow-up. However, for HPV testing facilities, this was not possible due to the longer turnaround time for results from the laboratory to reach health facilities. Some lower-level facilities with less workload, trained health workers and operational TA devices reported better cascade performance, with several providers noting that *“if she leaves without treatment, we may never see her again”*. This aligns with the continuum-of-care principles emphasized by WHO.

Where same-day treatment was not feasible, especially in high-volume and large facilities, attrition increased: *“health workers are too busy and are handling very many clients at the integrated service delivery points, and so they would schedule for treatment on a different day.”*²⁶⁹ Providers reported challenges such as delays in results return, difficulties contacting women without phones, and limited resources for active follow-up. In some counties, lack of clear referral pathways meant HPV-positive women were sent to distant facilities without structured, clear client navigation support. FGD participants described fear, stigma, and cost barriers (related to transportation to health facilities and treatment if one turned positive since not all women are registered with the social health authority and even for the ones registered SHA only covers women of a certain age and with limited capitation amounts) that discouraged return visits. Overall, the lessons underscore that the continuum of care depends on three critical enablers: rapid return of results, predictable access to same-day or same-facility treatment, and an active, well-resourced follow-up system.

²⁶⁵ KII with CHAI project staff and Levels 4 and 5 (Thika, Kisii and Machakos) health facility in charge

²⁶⁶ Ministry of Health, Kenya Cervical cancer pilot study project report and KII with the head national cancer control programme

²⁶⁷ CHAI project progress reports 2022 – 2025

²⁶⁸ CHAI project progress reports 2022 – 2025; FGD with WLHIV Kiambu LS hospital; KII with CHAI project staff and county NCD/RH coordinators Meru, Kisumu, Mombasa

²⁶⁹ FGD with beneficiaries of cervical cancer services at the Kisii level 5 hospital

Leave No One Behind (LNOB), equity & gender barriers

Self-sampling and community outreach improved access to HPV screening for vulnerable women, but gender norms and socio-economic inequities continue to hinder uptake and follow-up. HPV positivity rates observed in the pilot phase (approximately 17%) were consistent with expected epidemiological patterns and demonstrated the ability of HPV DNA testing to identify women requiring triage and treatment.²⁷⁰ Self-sampling emerged as a key equity-enhancing intervention, particularly for rural women, women living with HIV, female sex workers, and those with limited flexibility to attend clinics, results showed a high proportion of first-time screeners reached through community approaches. Self-sampling models combined with CHP-led mobilisation helped overcome privacy concerns and facility-level stigma. KII highlighted that self-sampling “*opened the door for women who feared pelvic exams*,” demonstrating strong potential for Leave No One Behind gains. Despite these successes, persistent gender norms undermined uptake of both cervical cancer screening and treatment and continuity in care. Many women required permission from their male spouses or partners to attend VIA triage and treatment. Moreover, financial vulnerability heightened barriers as transport costs, missed workdays, and childcare burdens weighed heavily on follow-up attendance. Providers noted that “*the poorest women are screened last and treated last*,” reflecting structural inequities.

The introduction of self-sampling, integration with HIV, FP and reproductive health services, outreaches and community-based delivery models, and targeted efforts to reach vulnerable women were particularly important gender-sensitive features. While the programme incorporated these gender-sensitive elements, lessons show the need for more explicit strategies addressing specific population needs such as female sex workers who perceived the requirement of no sexual intercourse for 6 weeks after TA as a major consideration, “*even though I am HIV positive, I work as a sex worker and feed my children through my work. If I was to go for cervix treatment, I would be out of work for six weeks, what will my children eat?*”.²⁷¹ This calls for increased efforts in recognizing and addressing the social, cultural, economic, and health-system barriers that affect women's access to cervical cancer services. Strategies targeting male partner influence, socio-economic barriers, and stigma in both design and implementation are required.

Programming at scale

Rapid scale-up was achieved through integration with existing platforms, but variability in county readiness indicates the need for phased, readiness-based expansion²⁷². Counties that already had stronger HIV or MNCH platforms scaled HPV screening more quickly due to established infrastructure and trained staff. This validates a core programme strategy: leveraging existing service delivery ecosystems to accelerate uptake. National-level policy support to the MoH enabled the rapid adoption of HPV DNA testing into guidelines and service protocols. TA was even more rapidly scaled, and with other partners providing resources; for instance, USAID procured an additional 150 devices for the other 22 counties not supported by Unitaid. Despite this support, progress made in the 22 non-Unitaid/CHAI supported counties was modest compared to the

270Ministry of Health, Kenya Cervical cancer pilot study project report and KII with the head national cancer control programme

271 FGD with women living with HIV (WLHI) in Nairobi county

272 CHAI Project progress reports 2019 – 2025; KII with CHAI project staff, master trainer and County RH/NCD coordinators Mombasa, Kisii, Kisumu and Kiambu Counties

achievement in the 25 CHAI-supported counties. National achievements (Table 6) demonstrate the impact that Unitaidd/CHAI investment has had when compared with achievements in the 25 CHAI-supported counties (Table 5), e.g., >90% of the screening, positivity, and treatment happened in the 25 Unitaidd/CHAI supported counties during the same reporting period.

Table 6: National cervical cancer cascade data 2019-2025 across 47 counties²⁷³

Year	Screening			Positivity			Lesions	Treatment
	VIA screening	HPV screening	PAP smear	VIA+	HPV +	PAP +ve	Suspicious cancer lesions	Total Treatment (Cryo,TA, LEEP)
2020	258,704	9,337	31,619	32,347	4,846	1,161	1,200	1,196
2021	462,075	14,466	27,900	168,266	11,598	1,679	3,340	2,778
2022	583,524	26,985	30,516	234,548	17,062	3,531	6,906	4,353
2023	660,584	31,874	37,323	246,748	17,864	5,360	11,490	6,466
2024	877,598	34,684	59,232	358,426	21,483	7,396	12,861	8,044
2025	621,014	50,435	51,869	237,697	17,047	8,531	9,700	6,291
Total	3,463,499	167,781	238,459	89,900	27,658	10,226	45,497	29,128

However, KIIs highlighted substantial differences in readiness across counties. Counties with fewer human resources for health, low investment in health, weaker supply chains, or insufficient supervision capacity struggled to absorb and scale new tools and workflows, resulting in inconsistent coverage and cascade performance. Implementers reported that “*scale moved faster than system capacity*,” leading to operational bottlenecks. Lessons indicate that future programming must adopt a phased scale-up model based on clear readiness benchmarks. This may include availability of commodities, trained staff, functional devices, and local budget commitments to ensure quality and sustainability.

Sustainable financing

High commodity costs and limited domestic budget allocation remain the greatest threats to sustainability, requiring a shift toward pooled procurement and integration into county budgets. HPV test kits and consumables (gloves, acetic acid, speculums) remain the biggest cost driver, with counties heavily reliant on donor-funded supplies. KIIs underscored that “*HPV testing is not yet in the county budget*,” signalling a gap in long-term financing. Domestic financing mechanisms, such as county health budgets, facility improvement funds and social health insurance through the primary healthcare fund, have not yet adjusted to absorb recurrent costs related to HPV testing and treatment. The lesson is that sustainable financing will depend on a combination of cost-reduction mechanisms and structural reforms, e.g. pooling procurement across counties or through a national mechanism, integrating testing into the national social health insurance scheme, and establishing dedicated and ring-fenced county budget lines. Without these shifts, counties will remain dependent on external partners, hindering sustainable scale-up.

²⁷³ KHIS2 data

South-South learning

*Informal knowledge exchanges provided valuable insights, but the lack of structured regional mechanisms limited consistent uptake of best practices across countries*²⁷⁴.

Kenya benefited from exposure to experience in early-adopter countries (Nigeria and South Africa), including peer insights on device deployment, management, and self-sampling integration. One of the county implementers who is a master TOT and CeC health acknowledged that “*seeing what worked elsewhere helped us avoid mistakes*.” It is important to note that, despite the non-existence of a project-specific formal forum for sharing lessons and best practices, counties have structured, regular reviews and engagements. Kenya also contributed to regional capacity building, with some of its master trainers called upon to build the capacities of Rwanda and South Africa. However, KIs emphasized that these exchanges were ad hoc, partner-driven, and not institutionalized. Formalized South–South learning structures, such as regional technical working groups, cross-country mentorships, and routine sharing of knowledge products, were limited. Lessons point to the need for a more systematic mechanism to harmonize learning across countries, particularly for new technologies, supply chain approaches, and digital data systems.

2.3.6 OVERVIEW OF SIX HYPOTHESES

The evaluation applied a hypothesis-driven approach to examine how Unitaids’ investments were expected to generate catalytic impact in strengthening cervical cancer secondary prevention in Kenya. The six hypotheses tested reflect the core assumptions underpinning the portfolio’s theory of change, particularly around service delivery innovation, integration, market shaping, and knowledge transfer.

Using evidence from national- and county-level key informant interviews, facility observations, programme data, and document review, each hypothesis was assessed for its validity, the extent to which it held in practice, and the contextual factors that influenced outcomes. The table presents a synthesis of:

- **The original hypothesis** as articulated in the global evaluation design;
- **Findings and evidence** emerging from the Kenya case study that confirm, partially confirm, or challenge the underlying assumptions;

This hypothesis testing provides an analytic bridge between the project’s intended causal pathways and the realities of implementation on the ground. It highlights where innovations demonstrated strong potential, where health system barriers moderated expected results, and where additional or revised design elements are needed to accelerate and sustain impact.

Table 12: Hypotheses testing

Hypothesis	CMO analysis
1. Proof of feasibility of community HPV self-sampling piloted by CHAI triggered national adoption as a standard service model	Context: Self-sampling improved acceptability, privacy, and uptake, especially among women reluctant to undergo facility-based screening with a high proportion of first-time screeners reached through HPV self-sampling. However, socio-cultural and gender barriers and low awareness still limit uptake in some areas.

274 KII with Kisumu CEC, Master trainers, Meru and Kisii county RH/NCD coordinators

	Mechanism: Community health promoters were instrumental in mobilization and awareness creation Outcome: Self-sampling was adopted in Kenya and institutionalized into the national elimination guidelines, but is yet to be financed by national and county budgets and still reliant on donor support.
2. Integration into existing services and/or same-day testing/treatment triggers client convenience and health care worker (HCW) confidence, reducing LTFU	Context: Integration quality (private space, trained staff and assured confidentiality) varied across facilities depending on staffing levels and infrastructure, and workload of health workers. Mechanism: Integration of screening and treatment services into existing services Outcome: Integration improved convenience for clients and workflow efficiency. HCW confidence improved yet turnover of HCW a barrier. Previously integration was only within HIV settings which led to stigmatization of services as only for HIV infected women. Following integration into RH/FP settings, it made it easier. Yet, there was stronger integration observed within HIV clinics than in other service areas (RH, FP, maternal health services) and large variation of integration across counties. Same-day test and treat generally not possible for HPV test due to lab turnover time, but TA reduced attrition between triage and treatment.
3. HPV DNA testing increase HW diagnostic confidence, improving continuity of care	Context: Continuity of care is constrained by contextual and system-level issues (referrals, stockouts, weak follow-up systems) as well as socio-cultural factors, including the age of women which is decisive for health insurance coverage and thus uptake. High-volume and large facilities reported larger attrition rates. Mechanism: Introducing HPV DNA testing increased diagnostic confidence and was widely accepted by women. and the use of GeneXpert platforms facilitated adoption of HPV testing. However, the approach did not lead to improved continuity of care, as it faced competition for lab time with other disease programmes (e.g., TB, HIV). Outcome: HPV DNA testing introduced an additional step in the cascade and evoked LTFU between testing and triage compared to screening through VIA.
4. Proof of concept triggers national government buy-in, leading to policy and budget inclusion	Context: System-level issues (referrals, stockouts, weak follow-up systems) and prices, Scale-up occurred too rapidly and strained system capacity in some counties. Mechanism: Proof of concept documented through baseline study and implementation Outcome: Government ownership observed at the policy level. The programme influenced national strategy and adoption of WHO-aligned approaches (90-70-90 targets). contribution to policy shifts toward HPV-based screening. However, limited evidence of full financial institutionalization (e.g., sustained domestic financing, insurance coverage).
5. Price negotiation and volume procurement should trigger MoH procurement otherwise, financially infeasible	Context: persistent stockouts of HPV kits and consumables, weak forecasting, procurement inefficiencies, and reliance on donor-supported supply chains limit sustainability. Mechanism: Market shaping efforts of HPV tests and deployment of TA to increase access to modern technologies Outcome; Prices of HPV tests and TA still too high to trigger MoH

	procurement
6. Structured knowledge sharing from early adopter countries shortens the innovation-to-scale timeline in later-adopter countries	Context: Limited explicit evidence on structured South-South learning mechanisms. Mechanism: Some indications of learning through partner networks and implementation experience. Outcome: No strong documentation of systematic regional knowledge exchange influencing Kenya’s adoption trajectory.

2.4 CONCLUSIONS AND CONSIDERATIONS FOR THE WAY FORWARD

The Kenya country case study demonstrates substantial progress in expanding access to cervical cancer secondary prevention services across the 25 project counties between 2019 and 2025. Supported by strong national leadership, strategic partnerships, and the introduction of innovative technologies, the programme contributed to significant increases in screening volumes, adoption of HPV DNA testing, and expansion of treatment capacity with TA increasing the continuum of care from triage to treatment. Screening services reached millions of women over the implementation period, while HPV testing increased markedly, reflecting Kenya's transition toward WHO-recommended screening approaches and its commitment to cervical cancer elimination. However, VIA as primary screening for cervical cancer remained the most dominant screening method (88%) occasioned by the unavailability of HPV testing, due to a lack of commodities resulting from suboptimal financial allocation for procurement by respective counties.

The introduction and scale-up of TA significantly increased treatment availability for women with precancerous lesions, while referral pathways for women requiring advanced treatment became more established. The programme also demonstrated the feasibility of integrating cervical cancer services within existing health platforms, particularly HIV and reproductive health services, thereby leveraging existing infrastructure and increasing opportunities to reach high-risk populations.

Despite these achievements, important gaps remain. Evidence suggests continued attrition between screening, and VIA triage (treatment eligibility assessment), and the need for stronger follow-up systems, referral mechanisms, and patient navigation support systems. County-level disparities in service readiness, workforce capacity, and commodity availability also continue to affect equitable access to quality services. Furthermore, while external support has accelerated innovation and implementation, long-term sustainability will depend on increased domestic financing, institutionalization of services within county health systems, and continued strengthening of supply chain and health information systems.

Overall, the Kenya experience provides valuable lessons for both national scale-up and global learning. It illustrates how targeted investments in innovative technologies, service delivery models, and health system strengthening can accelerate progress toward cervical cancer elimination. Continued focus on closing gaps in the screening-to-treatment cascade, and ensuring sustainable financing will be critical to achieving the WHO 90–70–90 targets and reducing the burden of cervical cancer among Kenyan women.

2.4.1 HIGH LEVEL STRATEGIC RECOMMENDATIONS

This evaluation identifies clear opportunities to strengthen and sustain secondary cervical cancer prevention in Kenya. The following recommendations outline priority actions necessary to improve service quality, continuity of care, and long-term system integration. The strategic recommendations below focus on *system-level reforms* (financing, supply chains, data systems, and scale-up models).

1. Strengthen the continuum of care: Unitaid/CHAI to support the development, testing, and scale-up of effective models that strengthen linkage between screening, diagnosis, treatment, and follow-up. This should include investments in patient navigation approaches, digital tracking systems, referral coordination mechanisms, and operational learning to identify and address bottlenecks across the care continuum.

2. Increase domestic financing and sustainability: Unitaid/CHAI to work with national and county stakeholders to develop and implement a clear transition and sustainability roadmap for HPV testing and treatment services. Priority should be given to supporting investment cases, financing strategies, and advocacy efforts that facilitate the gradual integration of cervical cancer commodities and services

into domestic financing mechanisms and future donor funding streams.

3. Ensure reliable commodity security: Unitaid/CHAI should build on existing market-shaping achievements by supporting forecasting, quantification, and supply planning for HPV tests, thermal ablation devices, and associated consumables. Unitaid/CHAI should continue engaging manufacturers, procurement agencies, and financing partners to improve affordability, strengthen supply security, and reduce the risk of commodity shortages during and after programme transition.

4. Adopt a phased, readiness-based scale-up model: Unitaid/CHAI to support the adoption of a structured county readiness framework to guide future expansion of HPV testing and treatment services. To be operational, this framework should be based on assessing an agreed minimum qualifying threshold across these domains (i.e., workforce capacity, equipment availability, commodity security, data systems, and treatment readiness) for a county to be considered as meeting the readiness criteria, while recognizing that improving underperforming counties to that standard is itself part of the implementation effort. Therefore, technical assistance should both assess readiness and actively strengthen it to meet screen-and-treat demand before introducing and scaling up new technologies and/or services to additional counties.

5. Accelerate integrated service delivery models: Further institutionalize integrated service delivery models within primary health care, HIV, and reproductive health programmes to maximize efficiency and sustainability.

6. Digitize and strengthen national data systems: Unitaid/CHAI to support the integration of cervical cancer indicators and services (especially triage) into routine national health information systems and promote interoperable digital solutions that reduce parallel reporting requirements. Investments should focus on improving data quality, strengthening use of data for programme management, and generating implementation evidence on the cascade of care to inform national scale-up and cross-country learning.

2.4.2 OPERATIONAL RECOMMENDATIONS

Operational recommendations enumerated below are targeted at addressing *service delivery improvements* (integration, workforce capacity, community engagement, and referral systems).

1. Standardize integration across high-contact service points: Embed HPV screening within HIV, MNCH, and family planning services using standardized workflows and job aids across all supported counties and health facilities.

2. Institutionalize continuous training and mentorship: Roll out structured mentorship and supportive supervision systems, ensuring quarterly mentorship visits in 100% of supported facilities. Devise a sustainable capacity-building plan to counter the high levels of staff turnover and brain drain. Consider supporting preservice curriculum review to ensure fresh graduates are well trained and ready to screen and treat at graduation.

3. Strengthen demand creation and community engagement: Implement targeted, culturally appropriate community communication strategies and CHP-led outreaches.

4. Establish structured south-south learning mechanisms: Create formal peer-learning platforms, conduct regular regional exchanges, and produce a targeted, specific number of knowledge products annually.

5. Improve facility-level referral and follow-up systems: Operationalize clear referral pathways and follow-up tracking mechanisms (including greater CHP involvement) to reduce loss to follow-up and support achievement of the national treatment targets.

2.5 ANNEXES

ANNEX 12.B.1. OVERVIEW OF KIIS/FGDS

Organization	KII or FGD	# of people interviewed/consulted	Male/Female
Ministry of Health (MoH) – Division of Non-Communicable Diseases (NCD)	KII	1	Female
National Cancer Control Programme (NCCP)	KII	1	Female
National Cancer Institute - Kenya (NCI-K)	KII	1	Male
Kenya Medical Supplies Authority (KEMSA)	KII	1	Male
National Oncology Reference Laboratory (NORL)	KII	1	Male
Kenya Defence Forces (KDF) – Health Services	KII	1	Male
Kenya Medical Training College (KMTTC)	KII	1	Male
Clinton Health Access Initiative (CHAI) – Kenya	KII	2	1 Male and 1 Female
Jhpiego Kenya	KII	1	Female
Center for International Health, Education, and Biosecurity (CIHEB)	KII	1	Female
ThinkWell (currently Health Systems Insight - HSI)	KII	1	Female
Roche Kenya Limited	KII	1	Female
Community health workers	FGD	8	5 Females and 3 males
Kenya Network of Cancer Organizations (KENCO)	KII	1	Female
Africa Cancer Foundation (ACF)	KII	1	Female
CSO - Kilele Health Association	KII	1	Female
CSO - Women 4 Cancer	KII	1	Female
County First Ladies Association (CFLA)	KII	1	Female
Kenya Medical Research Institute (KEMRI)	KII	1	Female
Master Trainer (Gynaecologist)	KII	2	Both Females

County NCD Coordinators ²⁷⁵	KII	9	6 Females and 2 males
Health facility in-charges ²⁷⁶	KII	10	6 Males and 4 females
Women Living with HIV	FGD	21	All Females

²⁷⁵ Nairobi, Kisii, Kiambu, Machakos, Mombasa, Marsabit, Nakuru, Kisumu, and Meru counties

²⁷⁶ Thika Level V, Mbagathi Hospital - Nairobi, Mama Lucy Hospital, Machakos Level V hospital, and Kisii Level VI hospital

ANNEX 12.B.2. DOCUMENTS REVIEWED FOR THE COUNTRY CASE STUDY

MOH, Kenya Training materials for HPV DNA testing, thermal ablation, and VIA

MOH, Kenya Community engagement materials (CHV job aids, mobilisation tools)

CHAI Facility readiness assessments (equipment inventories, service readiness checklists)

CHAI Annual performance framework and milestone reports

CHAI Midterm review and internal learning products

CHAI Commodity procurement records (HPV test kits, GeneXpert cartridges, thermal ablation devices)

County-level supervision reports from implementing counties of Kisii, Kisumu, and unpublished research report on barriers, misinformation, and perceptions regarding cervical cancer screening submitted to the National Cancer Institute CIHEB

Implementation reports from CHAI (programme updates, cascade data, training reports) – CHAI

Kenya National Bureau of Statistics (KNBS). Kenya Demographic and Health Survey (KDHS) 2022 accessed at <https://www.knbs.or.ke/reports/kdhs-2022/>

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Kisii County Integrated Development Plan (CIDP) 2023 – 2027 accessed at https://kisii.go.ke/index.php?preview=1&option=com_dropfiles&format=&task=frontfile.download&catid=153&id=105&Itemid=1000000000000

Kisumu County Integrated Development Plan (CIDP) accessed at [https://www.bing.com/search?q=kisumu%20County%20Integrated%20Development%20Plans%20\(CIDPs\)&q&gs=n&form=QBRE&sp=-1&lq=0&pg=kisumucounty%20integrated%20development%20plans%20\(cidps\)&sc=0-49&sk=&cvid=F429AA2AAD124A288C9EC9BD84E9AFD3](https://www.bing.com/search?q=kisumu%20County%20Integrated%20Development%20Plans%20(CIDPs)&q&gs=n&form=QBRE&sp=-1&lq=0&pg=kisumucounty%20integrated%20development%20plans%20(cidps)&sc=0-49&sk=&cvid=F429AA2AAD124A288C9EC9BD84E9AFD3)

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Meru County Integrated Development Plan (CIDP) 2023 – 2027 accessed at <https://repository.kippira.or.ke/items/6c0f1f50-38e9-4b20-820d-13dd41a26fc7>

Ministry Of Health National Cervical Cancer Elimination Action Plan 2025-2030 accessed at https://health.go.ke/sites/default/files/2026-01/NATIONAL%20CERVICAL%20CANCER%20ELIMINATION%20ACTION%20PLAN-%202025_Kenya_0.pdf

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Mombasa County Integrated Development Plan (CIDP) 2023 – 2027 accessed at <https://web.mombasa.go.ke/cidps/>

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International Agency for Research on Cancer (IARC) technical reports on HPV testing – IARC

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ACRONYMS

ART	Antiretroviral Treatment
AVE	Automated Visual Evaluation
CBSS	Community-Based Self-Sampling
CECAP	National Cervical Cancer Prevention Programme (Malawi)
CHAI	Clinton Health Access Initiative
CMST	Central Medical Stores Trust
CSO	Civil Society Organisation
DHIS2	District Health Information System 2
EID	Early Infant Diagnosis
EQ	Evaluation Question
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HSA	Health Surveillance Assistant
IARC	International Agency For Research On Cancer
KII	Key Informant Interview
LEEP	Loop Electrosurgical Excision Procedure
LIMS	Laboratory Information Management System
LTFU	Loss To Follow-Up
MNCH	Maternal, Newborn And Child Health
MoH	Ministry of Health
MOU	Memorandum Of Understanding
MSF	Médecins Sans Frontières
NFM	Global Fund New Funding Model
PEPFAR	U.S. President's Emergency Plan For AIDS Relief
PI	Principal Investigator
RHD	Reproductive Health Directorate (Malawi)
SOP	Standard Operating Procedure
TA	Thermal Ablation

TB	Tuberculosis
UNAIDS	Joint United Nations Programme On HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VIA	Visual Inspection With Acetic Acid
WHO	World Health Organization
WLHIV	Women Living With HIV
WOCACA	Women's Coalition Against Cancer

EXECUTIVE SUMMARY

Malawi has one of the world's highest cervical cancer burdens, with an age-standardised incidence of 70.9 per 100,000 and mortality of 54.1 per 100,000, (GLOBOCAN 2022 estimates), the third highest incidence and second highest mortality of any country worldwide, both far above global averages. Cervical cancer accounts for 38% of all female cancers in the country. In response, Unitaïd funded the Clinton Health Access Initiative (CHAI) from 2019 to 2025 to support the Ministry of Health in strengthening secondary prevention. The investment began with a feasibility study of HPV DNA testing on existing GeneXpert platforms in five districts and later expanded to 11. It reached approximately 49,000 women with HPV testing, trained 251 health care workers, deployed 570 thermal ablation and 35 LEEP devices, activated 154 new screening sites and 370 new treatment sites, and achieved a 78% triage linkage to VIA among high-risk HPV screen positive women and 92% treatment rate among eligible women. CHAI also co-developed and costed the National Cervical Cancer Strategic Plan (2022–2026). From 2023, the portfolio transitioned toward community-based self-sampling in two implementation districts, generating evidence now being incorporated into the next strategic plan and revised standard operating procedures.

This case study finds that the portfolio achieved most of its core technical and policy objectives but faced structural constraints in sustainability, equity and operational capacity. Six main achievements stand out: introduction and scale-up of HPV DNA testing as Malawi's primary screening method, demonstration of community-based self-sampling at scale with linkage above 80%, major expansion of thermal ablation and decentralised LEEP through task shifting to clinical officers, sustained provider competence in supported districts, completion of a five-district pilot study on the feasibility and diagnostic performance of "Automated Visual Evaluation" – an artificial intelligence-assisted screening tool, that is informing product development and commercialisation of these low-cost screening solutions, and making their way into country scale up planning, and a measurable rise in community awareness of cervical cancer through demand-creation efforts. Stakeholders at the national, district and facility levels consistently identified CHAI's technical-partner role within the Ministry of Health as a key enabler of these gains. Focus group discussion evidence from women who had used community-based self-sampling strongly corroborated these gains, underscoring the privacy, convenience and reduced travel burden of self-sampling, even though there were challenges in sustaining the supply of self-sampling kits at the community level.

Three structural constraints limit the programme's sustainability. First, the catalytic procurement model ended without a transition plan: after direct Unitaïd/CHAI support ended, most supported districts reverted to VIA only or limited HPV testing to women living with HIV through separate PEPFAR-supported programmes, as district budgets could not absorb cartridge costs. Second, civil society engagement was limited, late and unsupported by sub-granting, restricting community reach largely to Health Surveillance Assistant catchment areas. Third, single-provider sites and incomplete mentorship pipelines-especially for LEEP, where 15 of 20 trained clinical officers completed certification-left services vulnerable whenever trained staff were absent.

These findings point to five strategic shifts for future design: replacing the catalytic-exit model with a multi-year co-financing transition, building country-level commodity-negotiation capacity and regional pooled procurement, meaningfully sub-granting or contracting civil society organisations for community demand creation, strengthening structured, recurring mentorship for LEEP and VIA

providers, and embedding male engagement and equipment lifecycle planning into programme design. Overall, the Malawi findings refine but largely confirm the portfolio's six hypotheses, most notably by distinguishing policy adoption, which was achieved, from budget adoption, which was not.

Summary of conclusions, evidence and suggestions

Conclusion	Findings / evidence	Suggestions for the future
1. HPV DNA testing is the right primary screening modality, but its continuation depends almost entirely on partner financing.	HPV testing operated in 11 districts during the portfolio period and is the policy-preferred modality. After Unitaid/CHAI exit, most supported districts reverted to VIA-only or restricted HPV testing to women living with HIV under separate funding streams. District budgets cannot absorb cartridge unit costs.	Adopt a multi-year co-financing transition with binding government commitments, build country-level commodity-negotiation capacity, pursue regional pooled procurement to reduce per-test costs into domestic reach.
2. Community-based self-sampling is feasible, highly acceptable and scaling into policy, but financing has not yet followed.	CBSS was successfully implemented in two pilot districts and demand and acceptability were high. CBSS is being incorporated into the next Cervical Cancer Strategic Plan and revised SOPs. However, sustainability remains conditional on partner financing.	Secure financing for CBSS scale-up in the next phase, consider strengthening cold chain for sample storage and laboratory capacity, consider sub-granting civil society organisations for community-level demand creation.
3. Task shifting (LEEP to clinical officers, screening and CBSS to nurses and HSAs) is safe and effective, but mentorship pipelines and long-term follow-up systems for trainees and providers do not keep pace.	15 of 20 clinical officers trained completed LEEP certification, a backlog of un-mentored clinicians still persists with inadequate and inequitable distribution of providers. No adverse events reported from task-shifted LEEP or thermal ablation.	Establish a sustained, decentralised and sustainable mentorship system, enable central-hospital mentorship where district volumes are insufficient.
4. Civil society engagement was inadequate and missed an equity opportunity.	Some CSOs reported limited engagement in community outreach activities. The programme's HSA or village-clinic model achieved reach but did not extend to women who do not regularly use village clinics. CSOs have strong community links that might complement the current biomedical-focused model.	Sub-grant national civil society organisations early in the next phase, with formal MOUs, capacity-building allocation, and explicit demand-creation deliverables.
5. Multi-disease platform integration creates synergies but also dependencies.	HPV testing was successfully integrated onto GeneXpert. and Abbott's Alinity M platform. However, in some settings, TB and HIV samples retain priority over HPV samples.	Plan dedicated module capacity for HPV testing or alternatively improve laboratory capacity by investing in high-throughput platforms in higher-volume

Conclusion	Findings / evidence	Suggestions for the future
		districts, preserve multi-disease integration but avoid making HPV access conditional on TB/HIV programme financing.
6. Single-provider sites are structurally fragile.	Health centre providers in several implementation districts described service interruption when the sole trained provider is absent. Districts with a single LEEP-trained clinical officer also face the same risk.	Require training of at least two providers per facility in the next phase, integrate cervical cancer screening into duty rosters of all reproductive-health-trained staff at the site. Consider cervical cancer training in the pre-service training of nurses as an alternative to in-service training.
7. Gender norms and male involvement materially shape continuum-of-care outcomes.	Women routinely consulted their husbands before agreeing to treatment, particularly where abstinence was required. District coordinators named male involvement as the primary access barrier. Cultural modesty norms strongly favoured self-sampling over VIA in Muslim-majority districts.	Include male-engagement components explicitly in programme design, tailor communication strategies to religious and cultural contexts, integrate male sensitisation into community-level activities.
8. Policy adoption advanced but budget adoption did not.	HPV DNA testing, CBSS, AVE, and task-shifted LEEP are all reflected in current and forthcoming policy instruments. Domestic budget for cervical cancer remains very small. Political will is visible but has not translated into fiscal action.	Pursue parliamentary and political advocacy for a dedicated cervical cancer budget line, drawing on the family-planning precedent, package economic case alongside epidemiological case.
9. Pooled procurement delivered price savings but did not transfer negotiation or supply-chain capacity to government.	Unitaid's multi-country pooled procurement enabled HPV cartridges and 570 thermal ablaters to be delivered to Malawi at prices the Ministry of Health considered would otherwise have been infeasible. However, price negotiation was conducted partner-to-supplier with the Ministry informed of outcomes rather than active in the process, and procurement was channelled through UNICEF and the implementing partner rather than through Central Medical Stores Trust. HPV cartridge stockouts during the grant	Build country-level commodity-negotiation and quantification capacity in the Ministry of Health, integrate donor-procured HPV and pre-cancer-treatment commodities into the national supply-chain system via Central Medical Stores, and establish a replacement-financing pathway for thermal ablaters and LEEP devices ahead of the end-of-life of the existing installed base.

Conclusion	Findings / evidence	Suggestions for the future
	period showed that pooled procurement reduced unit cost but did not by itself secure continuity of supply. No replacement-financing pathway is yet in place for the installed base of thermal ablaters and LEEP devices.	
10. Loss to follow-up was noticeable at result-return and post-treatment. Patient-side retention systems remain underdeveloped.	Result-return, not triage or treatment, is the principal point of attrition: in the 2019–2020 sub-study only 55% of HPV-positive women received their results within 180 days, against triage linkage of 78.2% and a 92% conditional treatment rate among eligible women. A later cohort of HPV-positive women (CHAI, 2025) found only 17% returned for any post-treatment follow-up. The losses are driven by demand-side barriers such as distance, transport cost, results turnaround time and limited follow-up counselling, rather than by provider capacity.	Introduce structured counselling on follow-up, pre-scheduled appointments and reminder calls/SMS, shorten results turnaround and deploy Health Surveillance Assistants for community-based tracing of HPV-positive women.

3.1 INTRODUCTION

3.1.1 BACKGROUND

This case study contributes to the broader evaluation of Unitaïd’s cervical cancer portfolio (2019–2025), focused on partner-implemented activities aimed at advancing secondary prevention through screening and treatment of pre-cancerous lesions in women of reproductive age. The portfolio evaluation is both an assessment of performance and results and a learning exercise to inform Unitaïd’s future investments in cervical cancer elimination. Four in-depth country case studies (Burkina Faso, Kenya, Malawi and the Philippines) enable comparative analysis across delivery models and contexts, identifying transferable lessons and context-specific insights. This Malawi case study has been conducted to support that comparative analysis and to provide a country-level evidence base.

The evaluation is organised around six overarching learning themes (continuum of care, sustainable financing, programming at scale, south-south learning, commodity supply and delivery, and leaving no one behind) and six country-specific themes identified during the Malawi inception phase (multi-disease diagnostic platform leverage, CBSS evidence translation, task shifting for Loop Electrosurgical Excision Procedure (LEEP), Automated Visual Evaluation (AVE) readiness, laboratory systems optimisation, and decentralised mentorship). Six hypotheses guide the analysis, their assessment in light of the Malawi findings is presented under the Findings and lessons section.

3.1.2 CERVICAL CANCER PROGRAMMING IN MALAWI

Malawi’s cervical cancer burden is among the highest in the world. As of 2022, the age-standardised incidence rate was 70.9 per 100,000, the third highest globally and approximately five times the global average of 14.1. Age-standardised mortality at 54.1 per 100,000 is the second-highest worldwide (IARC, 2024), indicating a health system in which most women present at advanced stages and in which curative modalities such as radiotherapy remain largely unavailable. Cervical cancer accounts for 38% of all female cancers in Malawi, making it the single most important cancer affecting Malawian women.²⁷⁷ Malawi does, however, record the highest early-onset (under 45 years) cervical cancer incidence of any country worldwide, at 23.7 per 100,000, which reflects the interaction of the epidemic with high HIV prevalence among women of reproductive age.²⁷⁸ The country’s population is approximately 22.2 million, of whom an estimated 5.1 million are women in the priority screening age band of 25–49 years and approximately 560,000 to 600,000 women are living with Human Immunodeficiency Virus (HIV). HIV is the most important risk factor for cervical cancer in Malawi.²⁷⁹

Malawi’s national cervical cancer programme has evolved over more than two decades.²⁸⁰ The

²⁷⁷ International Agency for Research on Cancer. Cancer Today: Globoscans 2022 estimates of incidence and mortality worldwide [Internet]. Lyon: IARC, World Health Organization, 2024. Available from: <https://gco.iarc.fr/>

²⁷⁸ Wu J, Jin Q, Zhang Y, et al. Global burden of cervical cancer: current estimates, temporal trend and future projections based on the GLOBOCAN 2022. *J Natl Cancer Cent*. 2025;5(3):322–329. doi:10.1016/j.jncc.2024.11.006. Zhou X, Xu H, Fu Y, et al. Geographic and demographic patterns of cervical cancer in Africa using GLOBOCAN 2022. *BMC Cancer*. 2026;26(1):689. doi:10.1186/s12885-026-16000-7.

²⁷⁹ Worldometer. Malawi Population (Latest UN Data) [Internet]. 2026 [cited 2026 May 14]. Available from: <https://www.worldometers.info/world-population/malawi-population/> Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026.

²⁸⁰ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026.

National Cervical Cancer Control and Prevention Programme (CECAP) was established in 2004, and cervical cancer was included in the Essential Health Package in 2005. The Human papillomavirus (HPV) vaccine was introduced as a pilot in 2013 and integrated into routine immunisation in 2020. The first comprehensive cervical cancer prevention and control strategy was developed in 2016. Cervical cancer service-delivery guidelines were revised in 2019 to include HPV DNA testing as the preferred primary screening modality. In 2020, Malawi committed to the World Health Organization's (WHO) Global Strategy for Cervical Cancer Elimination²⁸¹, and the current National Cervical Cancer Prevention and Control Strategic Plan (2022–2026) was launched in 2022.²⁸² The strategic plan organises programme priorities around five focus areas: governance, advocacy and resource mobilisation, awareness and demand creation, increased HPV vaccine coverage, early detection and treatment of cervical cancer, and palliative care and survivorship. Its overarching goal is to reduce the burden of cervical cancer through increased access to prevention and control strategies, including palliative care, by 2026.

The high burden of cervical cancer in Malawi is driven by the intersection of high HIV prevalence, limited screening infrastructure, low HPV vaccination coverage, and severe treatment constraints. The Government of Malawi has aligned its national strategy to the WHO's 90-70-90 cervical cancer elimination targets²⁸³ and has adopted HPV DNA testing as the preferred primary screening modality where resources allow.²⁸⁴ An accelerated elimination plan to 2030 is under development with the support of the WHO, CHAI, and various implementing and development partners, and with a district-level elimination demonstration underway in Machinga from 2025–2027 implemented by Clinton Health Access Initiative (CHAI) and funded by Unitaid.²⁸⁵ Cervical cancer services are delivered primarily through facility-based screening and treatment within reproductive, maternal, newborn and child health (RMNCH) and Antiretroviral therapy (ART) services, community-based modalities have been introduced over the portfolio period.

Implementation responsibility is distributed across the Reproductive Health Directorate (RHD), which hosts the National Cervical Cancer Control and Prevention Program, the Directorate of Health Technical Support Services (Diagnostics), district health offices, and a combination of implementing partners. Partners active during the portfolio period include CHAI (with Unitaid funding), U.S. President's Emergency Plan for AIDS Relief (PEPFAR) implementing partners²⁸⁶, Médecins Sans Frontières (MSF), WHO, United Nations Population Fund (UNFPA), Joint United Nations Programme on HIV/AIDS (UNAIDS), and civil society organisations, including the Women's Coalition Against Cancer (WOCACA) and the Coalition of Women Living with HIV and AIDS (COWHLA). It is worth noting that partner geographic coverage is uneven – several districts have a single partner and others have no cervical cancer partner support.

²⁸¹ World Health Organization. Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem [Internet]. Geneva: World Health Organization, 2020. Available from: <https://www.who.int/publications/i/item/9789240014107>

²⁸² Ministry of Health, Malawi. National Cervical Cancer Prevention and Control Strategic Plan 2022–2026. Lilongwe: Ministry of Health, Reproductive Health Directorate, 2022.

²⁸³ World Health Organization. Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem [Internet]. Geneva: World Health Organization, 2020. Available from: <https://www.who.int/publications/i/item/9789240014107>

²⁸⁴ World Health Organization. WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention [Internet]. Second. Geneva: World Health Organization, 2021. Available from: <https://www.who.int/publications/i/item/9789240030824>

²⁸⁵ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026.

²⁸⁶ Partners in Hope, Baylor College of Medicine, Lighthouse and others.

3.1.3 UNITAID INVESTMENTS IN MALAWI

Unitaid funded CHAI from 2019 to support the Ministry of Health (MoH) in accelerating cervical cancer elimination through secondary prevention, with the formal grant ‘Preventing deaths from Cervical Cancer by catalysing the use of Optimal screening tests and treatment devices’ running from 1 July 2019 to 30 June 2025²⁸⁷. The investment began with a feasibility study integrating HPV DNA testing on existing GeneXpert platforms across five districts, followed by scale-up to 11 districts between 2019 and 2022. By 2025, the programme had conducted approximately 48,926 HPV tests across 11 facilities/districts, achieving a conditional 92% treatment rate among women with a positive Visual inspection with acetic acid (VIA) screen result and 78% linkage to VIA service among women who screened positive for HPV.²⁸⁸ The programme trained 251 healthcare workers and mentored 306 across 29 districts in cervical cancer screening and pre-cancer treatment, supported by 30 district-based CECAP mentors and comprehensive mentorship tools. Commodity deployment over this period included 800 VIA sets, 300 headlamps, 35 LEEP devices and 570 thermal ablation devices, activating 154 new screening sites and 370 new treatment sites²⁸⁹. Twenty clinical officers were trained and mentored on LEEP, with LEEP services initiated in 15 district hospitals. The programme co-developed and costed the National Cervical Cancer Strategic Plan (2022–2026) with the MoH.²⁹⁰

Furthermore, the early implementation experience of integrating HPV based screening into routine public health facilities was documented and published as part of a five-country evidence base alongside Nigeria, Senegal, Uganda and Zimbabwe.²⁹¹ The Malawi sub-study enrolled 2,320 women living with HIV (WLHIV) aged 25–49 attending ART clinics across nine facilities (five hub sites with on-site GeneXpert testing and four spoke sites with sample referral) between November 2019 and April 2020. Operationally relevant findings included: 95% of samples produced valid results, HPV positivity of 43% (the highest among the five study countries), 55% of HPV-positive women received their results within 180 days, among those receiving results, 93% linked to VIA, 18% of women receiving VIA were VIA-positive, and 80% of VIA-positive women received treatment, all through thermal ablation.

Malawi was the only country in the five-country cohort to achieve a meaningful share (16% of hub-site patients) of same-day test-and-treat, attributable to a deliberate practice of prioritising samples received before 10:00 am so that women could wait for results. The Malawi sub-study also documented 100% recommendation of self-sampling among women surveyed and was the first country in the cohort to deploy Health Surveillance Assistants (the lowest established government cadre at community level) for community-based follow-up of HPV-positive women, an adaptation that

²⁸⁷ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026. Clinton Health Access Initiative. Unitaid Final Closure Report (Cumulative): Grant ‘Preventing deaths from Cervical Cancer by catalysing the use of Optimal screening tests and treatment devices’, 1 July 2019 – 30 June 2025 [Final closure report submitted to Unitaid]. Clinton Health Access Initiative, 2025 Feb.

²⁸⁸ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026. Clinton Health Access Initiative. Unitaid Final Closure Report (Cumulative): Grant ‘Preventing deaths from Cervical Cancer by catalysing the use of Optimal screening tests and treatment devices’, 1 July 2019 – 30 June 2025 [Final closure report submitted to Unitaid]. Clinton Health Access Initiative, 2025 Feb.

²⁸⁹ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026.

²⁹⁰ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026. Ministry of Health, Malawi. National Cervical Cancer Prevention and Control Strategic Plan 2022–2026. Lilongwe: Ministry of Health, Reproductive Health Directorate, 2022.

²⁹¹ Joseph J, Demke O, Ameyan L, Bitilinyu-Bango J, Bourgoin B, Diop M, et al. Human papillomavirus testing using existing nucleic acid testing platforms to screen women for cervical cancer: implementation studies from five sub-Saharan African countries. *BMJ Open*. 2023;13(1):e065074. doi:10.1136/bmjopen-2022-065074

the other study countries did not replicate. It bears emphasis that the 55% figure denotes the share of HPV-positive women who received their result within 180 days in this early facility-based sub-study, whereas the 93% VIA-linkage and 80% treatment figures are conditional rates among the women who reached those subsequent steps, the binding loss therefore occurred at the result-return step rather than at triage or treatment.

From 2023, the focus shifted to community-based self-sampling (CBSS) and district-level elimination planning. The CBSS demonstration in Machinga and Balaka conducted 2,101 community delivered HPV tests and demonstrated VIA linkage rates for HPV positive women of 78%.²⁹² HPV testing was integrated at district laboratories, with sample transportation leveraging the existing HIV viral load courier network. Demand-creation activities supporting CBSS included orienting 20 community health workers on self-sampling education in the community, engaging 120 community leaders (chiefs, religious leaders, mother groups) with cervical cancer messages, and partnering with the WOCACA community awareness and demand generation in both districts²⁹³. During the same period, the portfolio supported a five-country prospective cohort study of AVE in Malawi, Rwanda, Senegal, Zambia and Zimbabwe.²⁹⁴ Malawi enrolled 4,618 women between March 2022 and January 2023 (the largest cohort of the five countries), with the RHD serving as principal investigator (PI). Of the Malawi cohort, 52.6% were WLHIV, HPV positivity was 31.7%, AVE positivity 29.4%, and VIA positivity 7.8%. Diagnostic accuracy metrics in Malawi were the strongest among the five countries: AVE sensitivity of 69.7% (compared to a pooled 60.1% across countries) and AVE-assisted VIA sensitivity of 81.7% (compared to a pooled 71.8%). Naked-eye VIA sensitivity in Malawi was only 40.4%, confirming AVE's substantial improvement over current visual-screening practice. The study generated the external validation evidence that has positioned AVE for inclusion in Malawi's next strategic plan and informed ongoing commercialisation discussions.

Beyond direct Unitaids procurement, the Malawi portfolio also demonstrated proof-of-concept for leveraging Global Fund resources to extend cervical cancer secondary prevention²⁹⁵. Under Global Fund New Funding Model (NFM) 2, cervical cancer was not originally included in the Malawi country submission, but funds were subsequently re-programmed during implementation following a CHAI-supported landscape assessment that documented approximately 140 thermal ablation devices and 30 LEEP devices that were procured through the Global Fund, sitting unused at health facilities and central stores due to a lack of trained providers. Re-programmed NFM2 funds were used to train providers on thermal ablation and LEEP, activating new pre-cancer treatment sites and decentralising LEEP services. The Department of HIV/AIDS, RHD and PEPFAR coordinated the submission, with CHAI playing an advocacy role through its Health Financing team. The success of integration during NFM2 enabled cervical cancer to be included with its own budget line in NFM3 from the outset, and during the COVID-19 period, additional re-programming of pandemic-response funds was secured for cervical

²⁹² Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026. Clinton Health Access Initiative. Unitaids Final Closure Report (Cumulative): Grant 'Preventing deaths from Cervical Cancer by catalysing the use of Optimal screening tests and treatment devices', 1 July 2019 – 30 June 2025 [Final closure report submitted to Unitaids]. Clinton Health Access Initiative, 2025 Feb.

²⁹³ Clinton Health Access Initiative. Overview of the Malawi Cervical Cancer Program. 2026.

²⁹⁴ African AVE Collaborative, Phiri H, Uwinkindi F, Diop M, Mwanahamuntu M, Gondongwe L, et al. A prospective 5-country observational study of the performance of a new artificial intelligence-based tool for cervical pre-cancer screening in the African region. 2025.

²⁹⁵ Clinton Health Access Initiative. Leveraging Global Fund Resources for Cervical Cancer [CHAI Working Brief]. 2023.

cancer prevention training and HPV testing commodities.

Across the investment period, key activities included introducing HPV molecular testing, self-sampling, thermal ablation and LEEP in selected districts, integrating screening and treatment into the national health system, generating operational and clinical evidence to inform WHO guidelines, national policies and implementation plans, and engaging communities and civil society to raise awareness and create demand. In Malawi, district coverage varied across the phases of the investment: the first HPV DNA testing pilot covered Mzimba North, Lilongwe, Mangochi, Blantyre and Mulanje; the scale-up phase extended to Mzimba North, Lilongwe, Mangochi, Blantyre, Mulanje, Nsanje, Machinga, Balaka, Mzimba South, Nkhata-Bay and Rumphi; the AVE work covered Rumphi, Mzimba North, Nkhata-Bay, Mulanje and Nsanje; and the CBSS phase was implemented in Machinga and Balaka. With Unitaid support, Malawi received 570 thermal ablation devices, the largest country allocation in the portfolio. CHAI acted as a technical partner to the MoH rather than a parallel implementer, with existing MoH providers delivering services supported by CHAI commodities, training, mentorship and demand-creation resources.

Market-shaping in Malawi operated principally through Unitaid's pooled procurement of HPV test cartridges across the multi-country portfolio (Malawi, Zambia, Rwanda and others), with the implementing partner managing country-level quantification and onward distribution through United Nations Children's Fund (UNICEF) and directly to districts rather than through Central Medical Stores Trust (CMST). Thermal coagulation displaced cryotherapy as the dominant modality. Quantitative pricing data and supplier-level volume records are addressed in detail under Evaluation Question (EQ) 2.4.

3.2 OBJECTIVES AND METHODS OF THE COUNTRY CASE STUDY

3.2.1 OBJECTIVES, HYPOTHESES AND LEARNING THEMES

The two specific objectives of the global evaluation are to²⁹⁶:

1. **Assess the catalytic impact** of Unitaids-supported programmes to accelerate cervical cancer elimination through secondary prevention in the 2019–2025 period
2. **Synthesise actionable insights** to shape impactful, scalable, and sustainable investments to accelerate progress towards elimination of cervical cancer.

This country case study pursues two objectives. First, to assess the catalytic impact of Unitaids' investments in Malawi in establishing and strengthening cervical cancer secondary prevention programmes, including their contribution to advancing the country along the pathway to elimination. Second, to synthesise learning on which tools, models and strategies have worked well, and why, in the Malawi context, and to translate those learnings into evidence-based, actionable recommendations to enhance the design, coordination, implementation and scale-up of cervical cancer interventions for the next investment phase.

The case study is organised around the six portfolio-level learning themes (continuum of care, sustainable financing, programming at scale, south-south learning, commodity supply and delivery, leaving no one behind) and the six Malawi-specific learning themes identified during the inception phase (multi-disease diagnostic platform leverage, CBSS evidence translation and scale-up, task shifting for LEEP, AVE as an assistive screening tool, laboratory systems optimisation, decentralised mentorship and workforce sustainability). It tests six hypotheses (H1–H6) on: community-based and self-sampling delivery models, integrated service delivery and same-day screen-and-treat, technology introduction and health worker capability, proof of concept and national policy adoption, market shaping and price reduction, and south-south learning and diffusion of innovation. Findings against each hypothesis are summarised under the Findings and lessons section.

The case study addresses the portfolio evaluation's thirteen evaluation questions, organised under four headings: responsiveness of the portfolio to needs and contexts, outcomes achieved, integration in global and national strategies, and efficiency of implementation. Table 1 maps the evaluation questions to the learning themes, and Table 2 summarises the six hypotheses tested by the case study.

Table 13: Evaluation questions and learning themes

Key evaluation questions	Specific evaluation questions	Links with Learning themes
1. Is the cervical cancer prevention	EQ1.1 Did the cervical cancer programmes respond to country needs and contextual realities? Were there mismatches (if any)	n/a

²⁹⁶See the evaluation Terms of Reference for the full statement of objectives.

Key evaluation questions	Specific evaluation questions	Links with Learning themes
portfolio responsive to needs and contexts?	between the design assumptions and country-level realities?	
	EQ1.2. How did Unitaïd’s cervical cancer interventions interact with those of other partners and broader systems? ²⁹⁷	n/a
	EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in cervical cancer screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?	Leave No One Behind
2. Did the portfolio achieve intended outcomes?	EQ 2.1 To what extent and through what mechanisms did Unitaïd’s interventions achieve their intended results?	Service delivery models & commodity supply, Continuum of care, Programming at scale
	EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?	Continuum of care Also: Service delivery models and commodity supply
	EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-collection & provider, AVE and TA) and what barriers have they faced in accessing or using them?	Service delivery models and commodity supply Also: Continuum of care, Leave No One Behind
	EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of cervical cancer screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?	Service delivery models and commodity supply Also: Programming at scale
3. Are services and tools adopted and integrated in global and national	EQ3.1 Are the gains from the Unitaïd supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd’s contributions beyond the project	Programming at scale, Sustainable financing

²⁹⁷ Relates to comparative advantage of Unitaïd.

Key evaluation questions	Specific evaluation questions	Links with Learning themes
strategies?	period?	Also: Service delivery models and commodity supply
	EQ3.2 Which financing approaches-across public, private, and donor sources-are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?	Sustainable financing Also: Programming at scale, Service delivery models and commodity supply
	EQ3.3 Were best practices from early-adopter countries applied to accelerate cervical cancer programming in other countries?	South-South learning Also: Service delivery models and commodity supply, Continuum of care, Programming at scale, Leave No One Behind
4. Is the portfolio implemented efficiently?	EQ4.1 How timely, cost-efficient, and cost-effective was implementation (considering both allocative efficiency and technical efficiency) and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts? ²⁹⁸	Service delivery models and commodity supply
	EQ 4.2. Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments? ²⁹⁹	South-South learning
	EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?	n/a

Table 14: Summary of evaluation hypotheses and linkages to EQs and learning themes

Hypothesis title	Hypothesis in brief	Key EQs	Learning themes
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²⁹⁸ Full value for money was outside of the scope of the evaluation²⁹⁹ Focus on the portfolio-wide learning. Intervention or country-level learning is addressed throughout the EQs

H1: Community delivery & self-sampling	Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	EQ2.1, 2.3, 1.3	1, 3
H2: Integrated service delivery & same-day treat	Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	EQ2.1, 2.2, 2.3	1, 2
H3: Technology introduction & HW capability	AI-AVE and HPV DNA testing increase HW diagnostic confidence, improving continuity of care	EQ2.1, 2.3	1
H4: Proof of concept & national adoption	Proof of concept from 'champion countries' triggers national government buy-in, leading to policy and budget inclusion	EQ2.1, 3.1, 3.3	4
H5: Market shaping & price reduction	Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	EQ2.4, 3.1, 3.2	1, 5
H6: South-South learning & diffusion	Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	EQ3.3, 4.2	6

3.2.2 METHODS AND LIMITATIONS

Data collection methods

The case study used a theory-based, realist mixed-methods approach. Data were collected in April and early May 2026 through key informant interviews (KIs), a focus group discussion (FGD) with women beneficiaries, document review, and observation of services at health facilities and laboratories in the field districts. Seventeen KIs were conducted with: senior implementing partner staff at national level, senior MoH cervical cancer programme staff at national level, a civil society organisation leader, four district cervical cancer coordinators, four district laboratory technologists, two district hospital cervical cancer providers, and four health centre cervical cancer providers. In addition, one focus group discussion was held with ten women who had undergone community-based self-sampling at a rural health centre in one of the implementation districts, in order to capture the perspectives and experiences of the intended beneficiaries of the screening modalities introduced. Field observations were conducted in Machinga and Balaka, selected for thermal ablation and CBSS implementation, in Mulanje, selected as a rural setting for assessing equity of access and supply-chain resilience, and in Nsanje, selected as a remote, hard-to-reach border district for assessing service continuity following the withdrawal of partner support. The document review covered Unitaids/CHAI programme documents, MoH policy instruments, WHO and global reference documents, and peer-reviewed and grey literature (see Annex B). Annex A lists consulted stakeholders by anonymised role.

Data analysis methods

All interviews and the focus group discussion were recorded with informed consent, transcribed (and translated into English where they were conducted in Chichewa), and analysed thematically against

the evaluation framework, using content analysis structured by the evaluation questions, learning themes and hypotheses. The focus group discussion was treated as a distinct beneficiary-perspective data source and triangulated against the provider, coordinator and laboratory accounts. Findings were triangulated across stakeholder groups and against documentary and routine data sources, with attention to convergence and divergence between national and district perspectives and between implementing partner and government accounts. Trends over the 2019–2025 period were assessed using programme performance data where available. Annex C (Evidence Matrix) documents the evidence supporting each finding.

Limitations and mitigation strategies

Four principal limitations should be considered when interpreting these findings, together with the mitigation measures undertaken.

Table 15: Limitations and mitigation strategies

Limitation	Mitigation
Snapshot in time: participant views from April–May 2026 may not fully reflect earlier phases of the portfolio.	Triangulation of contemporaneous interview accounts with programme documents and routine data spanning the full 2019–2025 period.
Recall bias for events from 2019–2022, particularly at facility level where staff turnover has been substantial.	Cross-checking facility recollections against national-level informants, published studies and closure reporting, flagging where evidence rests on recall alone.
Attribution: separating Unitaid/CHAI contributions from those of other partners operating in the same districts over the same period is difficult.	Careful triangulation across stakeholder groups and documents, transparent acknowledgement of residual attribution uncertainty where it remains.
Beneficiary perspectives derive from a single focus group discussion at one health centre and may not represent the full diversity of women across districts and delivery models.	Beneficiary accounts were triangulated against provider, coordinator and laboratory interviews and against routine programme data, the focus group was purposively located in a community where self-sampling had been delivered, to elicit informed experience of the modality.

3.3 FINDINGS AND LESSONS

3.3.1 RESPONSIVENESS OF THE PROGRAMME TO NEEDS AND CONTEXTS (EQ1)

EQ1.1 Did the cervical cancer programmes respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?

The Unitaid/CHAI portfolio responded to one of the world's highest cervical cancer burdens, and its principal design choices were well matched to Malawi's needs. However there was a mismatch with contextual realities concerning engagement with civil society and community structures. With an age-standardised incidence of 70.9 per 100,000 and mortality of 54.1 per 100,000, secondary prevention was an urgent priority. Stakeholders at national, district and community levels widely understood and supported the programme's aim of advancing Malawi toward the WHO 90-70-90 elimination targets, and consistently described the portfolio as aligned with the national elimination agenda and as addressing a gap the public health system could not have filled alone.

At the design stage, introducing HPV DNA testing as the primary screening method was the programme's most important response to the country's needs. Before the programme, screening relied largely on VIA, which providers described as clinically limited and less acceptable to women: VIA requires undressing and a speculum examination, depends heavily on provider skill, and identifies abnormalities only once they are visible. By contrast, HPV DNA testing that is supported by self-sample collection, with VIA reserved for triage among HPV-positive women was seen by district coordinators and providers as allowing wider coverage with fewer staff and offering earlier opportunities for intervention. Stakeholders consistently noted that without the catalytic support, Malawi's policy preference for HPV DNA testing would likely have remained largely aspirational.

The second major design response, CBSS, addressed access and acceptability barriers identified during earlier facility-based phases. Women in hard-to-reach areas faced prohibitive transport costs and time burdens, while the CBSS model brought screening closer to communities, used Health Surveillance Assistants (HSAs) for sample collection education to women, and removed the modesty barrier associated with speculum examination. A health centre provider reported screening 50 women per day in the first three days after CBSS launch, a volume not achievable under VIA. In a Muslim-majority district, a provider noted that privacy was a decisive factor enabling women who found VIA culturally uncomfortable to access screening for the first time.

The design–reality mismatch concerned engagement with civil society organisations and community structures. A head of a national civil society organisation reported working with the implementing partner for only two to three months, without sub-granting and with resources that community volunteers viewed as inadequate. The evidence suggests the programme assumed that HSAs and facility-based providers could manage community engagement on their own, while this generated reach in implementation facilities, it did not extend meaningfully to women outside designated HSA catchment areas or formal community health structures such as village clinics, which are run by HSAs and mostly serve women who are attending under-five clinics, immunisations, and family planning services, potentially leaving out women who were not engaging with these services.

The portfolio seemed to have adapted appropriately over time, from integrating HPV testing onto GeneXpert (2019) to CBSS, conventional-laboratory integration and district-level elimination planning

(from 2023), with the COVID-19 pause managed without derailing strategic direction. However, the response to the country's most persistent constraint, domestic financing for HPV commodities, remained limited, district coordinators in the sampled districts reported that once support ended, HPV testing either stopped or was limited to WLHIV through separate PEPFAR-supported funding.

The focus group discussion with women who had used community-based self-sampling reinforced this assessment of fit from the beneficiary side. Participants consistently described self-sampling as responsive to two locally significant constraints: the long distances and transport costs separating rural women from screening sites, and the loss of privacy entailed by speculum-based visual inspection. Several women contrasted self-sampling favourably with prior arrangements that had required them to travel substantial distances to a distant facility, and many emphasised that collecting their own sample, "without someone seeing your nakedness", was decisive in their decision to screen for the first time. However, since the end of Unitaids support, CBSS has not been implemented or taken up by the MoH in the pilot districts due to funding constraints, a reality that the beneficiaries found disheartening as they found the service extremely valuable.

EQ1.2 How did Unitaids' cervical cancer interventions interact with those of other partners and broader systems?

Unitaid/CHAI interventions were deliberately positioned within MoH systems and priorities for scaling up HPV DNA testing, CBSS, and emerging AI screening technologies. The investment strongly leveraged other programme platforms, generating strong synergies but also dependencies on other disease programmes. CHAI acted as a technical partner rather than a parallel implementer, with MoH providers delivering services and CHAI participating in the Cervical Cancer Steering Committee, an offshoot of the Safe Motherhood Technical Working Group. HPV testing was integrated onto GeneXpert platforms originally procured for Tuberculosis (TB) and also used for HIV viral load and early infant diagnosis, and sample transport leveraged the existing HIV viral load courier network.

Interaction with PEPFAR-supported partners was substantial. In several districts, PEPFAR implementing partners (including Partners in Hope, Baylor College of Medicine and Lighthouse) sustained HPV testing for WLHIV after direct Unitaids/CHAI support ended, although this did not extend to HIV-negative women. The portfolio also interacted productively with Global Fund mechanisms, leveraging re-programmed NFM2 funds to activate unused thermal ablation and LEEP equipment and securing a dedicated cervical cancer budget line under NFM3.

EQ1.3 How did gender norms, roles and relations influence access to, uptake of, and continuity in cervical cancer screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?

Gender norms shaped access and continuity at every stage, and the modalities introduced were broadly responsive to them, but explicit gender-transformative design was added during implementation rather than built in from the outset. Male decision-making power was decisive: women routinely consulted their husbands before agreeing to treatment, particularly where post-treatment sexual activity abstinence was required, and district coordinators identified the lack of male involvement as the primary access barrier, observing that men, as traditional household decision-

makers, strongly influence whether women present for screening and treatment.

Cultural and religious modesty norms also shaped uptake. In Muslim-majority districts, women were reluctant to undergo VIA, and self-sampling enabled many to access screening for the first time, introducing CBSS in such settings was therefore well aligned with local realities. The programme appropriately prioritised women aged 25–49, according to national guidelines, who are at highest risk of progression from persistent HPV infection, and integrated screening into ART services to reach WLHIV, who constituted the large majority of those screened at many sites.

Responsiveness to other vulnerable groups was more limited. Women under 25 and over 49 were excluded by design, women in districts without an active implementing partner had little or no access to HPV testing, and border areas posed particular challenges, with substantial loss to follow-up where women gave false addresses and unreachable phone numbers, reflecting the transient, often cross-border profile of some clients at these facilities, who were reluctant to be traced or were not permanent residents of the catchment area. Sex workers, women with disabilities and women with chronic illnesses were identified as vulnerable but were not explicit programme targets. Low cervical cancer awareness and knowledge were recurring access constraints addressed through community awareness and mass screening campaigns. Taken together, these findings indicate that future programmes should embed gender-transformative components, including male engagement and context-tailored communication, from the design stage.

The beneficiary focus group discussion both confirmed the centrality of male decision-making and revealed the mechanisms through which self-sampling reconfigured it. Women reported that, under provider-delivered screening, husbands had often withheld consent because they objected to a clinician, particularly a male clinician, examining their wives or partners, the advent of self-sampling, which removed this exposure, materially shifted male attitudes, with several participants describing husbands who “were happy” once screening no longer entailed a pelvic examination. Counselling that instructed women to inform their husbands in advance, given the post-treatment abstinence requirement, was described as routine and generally accepted.

A particularly instructive account concerned community sensitisation that reframed men as “carriers” of the virus rather than persons at risk themselves, one participant attributed her husband’s acceptance directly to a chiefs’ meeting that had delivered this message, illustrating how locally credible, male-targeted messaging can convert a primary access barrier into a facilitator. The discussion also exposed a dense layer of gendered misinformation attaching to provider-delivered screening, including beliefs that acetic-acid testing causes infertility or sexual harm, that it is associated with witchcraft or satanism, and that male providers might assault women during examination, which self-sampling was felt to circumvent by removing the provider from the encounter. These accounts strengthen the case for embedding male-engagement and misinformation-management components, delivered through traditional and faith structures, from the design stage.

3.3.2 KEY ACHIEVEMENTS AND RESULTS OF THE UNITAID SUPPORTED ACTIVITIES (EQ2)

EQ2.1 To what extent and through what mechanisms did Unitaids’ interventions achieve their intended results?

The portfolio delivered substantial achievements across diagnostic introduction, treatment scale-up, workforce development, demand generation and policy evidence. Triangulation across senior implementing partner staff, the national programme coordinator and field-level respondents point to six main clusters of achievement.

Introduction and scale-up of HPV DNA testing

The portfolio established HPV DNA testing as a functional service in Malawi for the first time. From a 2019 feasibility study on existing GeneXpert platforms in five districts, the programme scaled to 11 districts and reached approximately 46,800 women between 2019 and 2022. Some district stakeholders confirmed continued HPV testing on GeneXpert, initially under the implementing partner and subsequently sustained by PEPFAR-funded partners for WLHIV. These achievements anchored Malawi's policy adoption of HPV DNA testing as the primary screening modality.

Demonstration of community-based self-sampling at scale

The 2023–2025 CBSS studies in two implementation districts, covering four rural health centres, generated operational and clinical evidence now informing policy: linkage rates of approximately 80%, confirmation that HSAs could support community sample collection with orientation and mentorship, and feasible integration with conventional laboratory networks using existing viral load transport schedules. One national policymaker described CBSS as a “game changer” and confirmed it will be included in the next national strategic plan and revised standard operating procedures (SOPs). Preliminary results from multi-country implementation research (2023–2025) place Malawi among the strongest performers: 80.3% of HPV-positive women in the health-facility arm and 88.5% in the health-post arm received results and were triaged, with the health-post arm (managed by an HSA) meeting the pre-specified non-inferiority margin of –6% against the facility comparator. Malawi's performance is consistent with its early use of HSAs for sample collection and follow-up and its use of the existing HIV viral load transport network.

Treatment scale-up and decentralisation

Thermal ablation deployment was described uniformly as transformative relative to cryotherapy, citing portability, ease of use and same-visit treatment capability. Providers confirmed in-facility same-day treatment for lesions covering less than 75% of the cervix, with referral to district hospitals for larger lesions and no adverse events reported. The portfolio also catalysed task shifting for LEEP: a curriculum was co-developed with the Association of Obstetricians and Gynaecologists of Malawi and the MoH, and clinical officers were trained in 15 districts (of 20 enrolled), decongesting central hospitals. The national programme coordinator noted that clinical officers offer better retention than medical doctors, who frequently leave for specialisation, making task shifting strategically sound.

Workforce development and decentralised mentorship

By the end of 2022, 251 health care workers had been trained and 154 new screening sites and 370 new treatment sites activated. Qualitative accounts indicate that the CECAP-aligned mentorship model produced durable competence: senior implementing partner staff described provider confidence as “100%” where mentorship was completed. Several district-level activities persisted beyond the active grant period in some, though not all, districts.

AVE evaluation and the AI screening pathway

The five-district AVE study, with the MoH as Principal Investigator, demonstrated strong government ownership of an emerging technology. AVE outperformed naked-eye VIA in sensitivity and specificity, although it neither met the original 85% sensitivity and specificity benchmark nor matched HPV performance. After initial concerns about cervical photography were addressed, both women and providers responded positively. WHO recognition of AVE as an emerging visual-evaluation screening technology during the portfolio period, together with ongoing work to identify a commercialisation partner, has created a pathway for AVE to be included in the next strategic plan.

Demand generation, policy translation and continuum of care

Cervical cancer is now openly discussed in communities, reflecting structured awareness efforts with traditional leaders, faith leaders and HSAs, and information, education and communication materials that clarified the difference between an HPV-positive result, cervical pre-cancer and cervical cancer. The implementing partner's technical-partner role enabled co-authorship of the national strategic plan, training manuals and SOPs, including costing of the strategic plan (2022–2026).

Programmatic targets and achievement against the logframe

Programmatic targets for Malawi were set in the CHAI cervical-cancer logframe and revised in the December 2021 grant amendment, with results reported cumulatively in CHAI's annual data files. Against these targets Malawi met or exceeded every quantified Phase 1 (2019–2022) output indicator and met or exceeded seven of the nine Phase 2 (2023–2025) output indicators, as summarised in Table 4 and Table 5. The two Phase 2 shortfalls, the reach of self-sampling among WLHIV, and a costed laboratory plan for HPV testing at scale, are examined under EQ2.2 and EQ3 below.

Table 16: CHAI Malawi programmatic targets and achievement, Phase 1 (2019–2022).

Indicator	End-of-project target	Result (cumulative)	Status
<i>Outcome indicators (programme level)</i>			
P1: % of women living with HIV (on ART) screened for cervical cancer in the last 3 years (baseline 3.5%)	18%	19%	Exceeded
P2: % of women aged 30–49 screened for cervical cancer in the last 5 years (baseline 2.7%)	8%	9%	Exceeded
P3: % of screen-positive women with eligible lesions who were treated (baseline 71%)	55%	57%	Exceeded
P6: Thermal ablation approved and in use at	Yes	Yes	Met

national level			
Output 1: Screening, treatment & continuum-of-care delivery models (project sites)			
O1.1(a): Women living with HIV screened with HPV tests at project sites	28,500	29,166	Exceeded
O1.2(a): General-population women 30–49 screened with HPV tests at project sites	16,500	17,650	Exceeded
O1.3(b): Number of project sites offering integrated service delivery	11	11	Met
O1.4: % of screen-positive women referred for suspected cancer who attended the referral (baseline 18%)	90%	96%	Exceeded
O1.5(b): Number of screening sites equipped with portable cryo/thermal devices	11	11	Met
O1.6: % of eligible screen-positive women treated at project sites (baseline 67%)	90%	92%	Exceeded
Output 4 — Conditions for scale-up			
O4.1: Costed national cervical-cancer screening & treatment plan in place	Yes	Yes	Met
O4.2: Firm plans for complementary / transitional financing identified	Yes	Yes	Met
O4.4: National patient-tracking / continuum-of-care system defined and embedded in scale-up plans	Yes	Yes	Met

Source: CHAI CxCa logframe, CHAI/Unitaid 2022 annual data file (cumulative results, revised end-of-project targets).

Table 17: CHAI Malawi programmatic targets and achievement, Phase 2 (2023–2025).

Indicator	End-of-project target	Result (cumulative)	Status
P2: Key national strategic document(s) updated in line with WHO guidance on HPV self-collection	Yes	Yes	Met
P3: Women screened with an HPV test (self-sampling programme)	2,000	2,109	Exceeded
P3(a): Women living with HIV screened with a self-collected HPV test	600	146	Not met
P3(c): General-population women screened with a self-collected HPV test	1,400	1,963	Exceeded
P4: % of eligible screen-positive women who were treated	85%	100%	Exceeded
P5: % of women with suspected cancer who completed referral to diagnosis/treatment	90%	100%	Exceeded
P6: Secured funding commitment for transition / scale-up	Yes	Yes	Met
P7: Costed, operational laboratory plan for HPV testing delivery at scale	Yes	No	Not met
P9: Advocacy Log maintained to document Significant Moments of Change	Yes	Yes	Met

Source: CHAI/Unitaid 2025 donor data file (full-grant cumulative results), Final Closure Report 2019–2025.

EQ2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?

Initial linkage and treatment performance during the active grant period was strong, but long-term retention after screening and treatment was weak. A treatment rate of 92% among eligible (VIA-positive) women and triage linkage of 78% from HPV-positive result to VIA indicate strong continuum-of-care performance under realistic conditions, supported by a functioning HPV-to-VIA-to-treatment pathway, counselling that distinguished HPV positivity from cervical cancer, tracking registers recording addresses, phone numbers and HSA catchment areas, and same-visit thermal ablation for eligible lesions. Where these conditions were in place, district coordinators and health centre providers reported limited loss to follow-up, mostly among women who had moved, changed phone

numbers or provided inaccurate contact details, especially at border facilities.

Of 48,926 women (2019 – 2025) screened with HPV, 14,520 (29.7%) tested positive, 11,361 (78.2% of HPV-positive women) were linked to VIA triage, 1,509 (13.3% of those triaged) were VIA-positive and therefore eligible for treatment, 1,389 (92.0% of eligible women) were treated by thermal ablation or another modality, 1,341 women were referred for large lesions, suspected cancer or other gynaecological indications, and 393 (29.3% of referred women) received LEEP. Triage linkage – defined here as the proportion of HPV-positive women who subsequently accessed VIA – therefore stood at 78.2% across the programme, while the conditional treatment rate among eligible women was 92.0% (see table below).

Table 18: Cumulative cervical-cancer secondary-prevention cascade, Malawi (2019–2025).

Indicator	2019–2020	2021–2023	2024–2025	Total	Conditional %
Women screened with HPV	9,413	37,403	2,110	48,926	
HPV-positive women	3,012	10,972	536	14,520	29.7%
HPV-positive women who accessed VIA (triage)	2,349	8,564	448	11,361	78.2%
HPV-positive, VIA-positive (eligible for treatment)	305	1,093	111	1,509	13.3%
Women treated (all modalities)	281	1,009	99	1,389	92.0%
Women referred (large lesion / LEEP)	–	1,337	4	1,341	
Women treated with LEEP	–	390	3	393	

Same-day test-and-treat under HPV testing was rarely feasible because results required laboratory processing (typically one to seven days, longer when reagents were unavailable or Laboratory information management system (LIMS) was unstable), several district stakeholders identified this as a major weakness. Therefore, the assumption that same-day test and treat can be achieved through HPV DNA testing is not entirely feasible.

The beneficiary and additional district accounts provide more context to this picture of the continuum in three respects. First, women who had self-sampled accepted the multi-day, sometimes two-week, wait for results as a reasonable price for the privacy and reduced travel that self-sampling afforded, but they nonetheless contrasted it unfavourably with the same-day result and treatment obtainable under facility-based visual inspection, the resulting demand pressure was such that some women returned to the facility in person to ask whether their results had arrived. Second, sample quality at the collection step emerged as an under-recognised source of attrition: several participants reported being asked to re-collect samples, in some cases up to three times, because their specimens were invalid, which they attributed to inadequate pre-collection hygiene or imperfect technique rather than to the providers' instructions. Third, the histopathology step (for LEEP samples) was identified as a structural bottleneck in the treatment cascade: a district coordinator reported that biopsy specimens for the entire southern region depend on a single referral laboratory with a turnaround of approximately two weeks, during which women who had undergone LEEP had to wait for weeks to months to get their results, which determine whether the procedure was successful or not. A related

data-systems weakness compounded the problem: because the screening registers initially contained no field in which to record returned histopathology results, biopsy outcomes were documented only in women's individual health passports and were accessible only to the implementing partner, so that district-level data on LEEP biopsy outcomes was incomplete.

EQ2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self/provider collection, AVE and TA) and what barriers have they faced in accessing or using them?

Satisfaction with the introduced tools was high among both women and providers, with self-sampling and thermal ablation particularly well received, the main barriers were structural rather than attitudinal. Women regarded HPV self-sampling as easy and private, and providers preferred it for its lower workload, since only HPV-positive women required VIA. Thermal ablation was valued for enabling same-visit treatment without the gas-refuelling and infrastructure constraints of cryotherapy. AVE was received positively once initial concerns about cervical photography were addressed through pre-procedure counselling and informed consent, and reassurance that images would be handled confidentially and used solely for clinical assessment, with providers reporting strong demand.

Reported barriers to access and use centred on male decision-making and the need to consult husbands before treatment, transport costs for referral to district hospitals for LEEP and to central hospitals for histology, and laboratory turnaround that prevented same-visit results. Among providers, satisfaction was tempered where incentives were distributed unevenly between clinical and laboratory staff, which created resentment and occasionally disrupted sample flow: laboratory staff felt left out of workshops compared to clinical and nursing staff.

The focus group discussion provided the evaluation's most direct evidence of beneficiary satisfaction, and it was uniformly and emphatically positive. Women described the self-sampling device as soft, small and painless, explicitly contrasting it with the speculum used in visual inspection, which they associated with discomfort and fear, and several stated plainly that they had experienced no difficulty whatsoever in using it. The two attributes most consistently valued were privacy, repeatedly framed as the ability to test "without someone seeing your nakedness", and the elimination of long journeys to a health facility, with participants noting that some women had previously walked up to ten kilometres to screen. Satisfaction translated directly into demand: participants asked the evaluators to convey to government their plea that the programme continue and that kits be made continuously available at the community level, with several proposing door-to-door distribution by HSAs "just the same way we were doing with HIV self-testing kits". Dissatisfaction, when expressed, attached not to the modality but to its withdrawal after the end of Unitaids support and to operational friction, the cessation of kit supply, the wait for results, and the need to re-sample after invalid specimens, reinforcing the conclusion that the principal barriers were structural rather than attitudinal. Notably, women's grasp of the clinical logic was sound: when probed, participants correctly distinguished a positive HPV result from a diagnosis of cervical cancer and understood that early-stage disease is treatable, indicating that the demand-creation and counselling efforts had achieved meaningful health literacy among beneficiaries.

EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of cervical cancer screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?

Both the national programme coordinator and the implementing partner identified Unitaids' pooled-procurement role as the principal market-shaping mechanism reaching Malawi. Because Unitaids was simultaneously supporting Malawi, Zambia, Rwanda and other countries, it was able to advocate for pooled procurement of HPV test kits, commodities that are prohibitively expensive on a single-country basis, and to negotiate lower unit prices through bulk volumes. Informants directly linked unit cost to sustainability, noting that several earlier partners had been unable to sustain HPV testing because of cartridge cost, and that pooled procurement was the principal mechanism securing a continuous supply chain for HPV commodities. Supporting evidence is available in Annex C.2.

Procurement evolved over the grant: during the initial implementation phase (2019–2022) HPV commodities were procured through UNICEF and funded by Unitaids, whereas during the 2023–2025 community-based self-sampling phase the implementing partner procured directly from manufacturers with Unitaids funding, additional scale-up volumes (2022–2025) were supported by USAID implementing partners and MSF, although these partner-supported quantities are not comprehensively captured in the procurement totals.

Indicative verified unit costs were US\$2.50 per Hologic PreservCyt vial, US\$14.90 per Cepheid GeneXpert HPV (GX-HPV-10) cartridge, US\$1.78 per Lasec self-sampling collection kit and US\$2.36 per assisted-sampling kit, with Abbott HPV commodities donated, the cartridge therefore remains the dominant unit-cost driver, consistent with the affordability constraint identified by informants.

An estimated 48,926 women benefited from HPV testing over the period (46,816 in 2019–2022 and 2,110 in 2023–2025). HPV testing is provided free of charge to the end user. Availability nonetheless remains narrow: of 513 cervical-cancer screening sites nationally, only 33 (6%) currently offer HPV DNA screening, spanning urban, peri-urban and rural settings. Distribution now follows a dual system: Global Fund commodities are managed by the CMST and distributed through the MoH supply chain, while partner-procured commodities are delivered directly to facilities, and the implementing partner is supporting the Ministry to harmonise these channels through the CMST.

The principal barriers identified by the partner mirror the case-study evidence: the high unit cost of the test constrains procurement volumes, donor reliance is heavy, and donor geographic and demographic priorities limit sustainable national expansion, even as demand remains high on account of provider preference and community acceptance.

Operationally, the market-shaping benefit was transmitted to country level through a partner-led procurement channel rather than through government systems. The implementing partner quantified district-level demand for the lifetime of the grant and channelled procurement through UNICEF, with shipments delivered directly to the implementing partner and onward district distribution conducted jointly by the implementing partner, the MoH and other implementing partners, explicitly not through CMST. HPV cartridges were initially managed as a vertical commodity but were progressively integrated into the district-level supply chain, with stock cards opened at facility pharmacies and providers following standard ordering procedures. Sampling swabs were available throughout the period, the binding constraint was cartridges, reflecting both global shortages during the grant period and the supplier's upfront-payment terms. Combined with quantification, UNICEF processing, freight and customs clearance, these factors produced intermittent stock-out periods during which facilities reverted to VIA. These intermittent stock-outs were largely mitigated through consumption tracking,

biweekly commodity reporting, minimum–maximum stock thresholds and inter-facility redistribution.

Government involvement in price negotiation was limited. The implementing partner held the direct relationship with manufacturers and conducted negotiations independently, with the MoH informed of outcomes rather than active in the process. Evidence indicates a market-shaping pathway in which affordability gains accrued to the country but country-level negotiation capacity was not deliberately built, a gap that is material to sustainability as partner presence reduces.

For thermal ablation, the deployment evidence is stronger and more equitable than for HPV testing. Approximately 570 thermal ablaters were distributed nationally, with the implementing partner reporting full distributional reach and near-universal utilisation. Verified partner data sharpen this picture: 570 thermal ablation devices (Liger and WISAP) were procured directly from manufacturers and distributed to 331 health facilities – 298 primary-level, 29 secondary-level and 4 tertiary-level – with high-volume sites allocated up to three devices, and all of these devices were funded by Unitaids. The partner reported achieving an approximately 40% price reduction through its market-shaping work, which represents the clearest quantified market-shaping gain in the portfolio.

Allocation prioritised facilities with trained providers but no equipment, newly established screening and treatment sites, and replacement of malfunctioning devices. About 506 of the deployed devices still work and 64 do not, mainly because of worn probes and failed power banks. This shows that the main challenge ahead is keeping devices maintained and replaced over time, not getting them out to facilities in the first place. Thermal ablation displaced cryotherapy as the dominant pre-cancer treatment modality because it eliminated the recurring gas-refill cost and removed the infrastructure footprint that had made cryotherapy infeasible for outreach. The forward-looking bottleneck for thermal ablation is therefore not introduction but lifecycle replacement: devices and probes have finite working lives, and a replacement-financing pathway for the installed base has not yet been established.

Key bottlenecks across the market-shaping pillar are therefore three. First, HPV cartridge affordability remains the binding constraint on scale, especially for the Malawi government, which has significant, equally important competing interests and programs. Second, the procurement channel that delivered the pooled-price benefit bypassed CMST, which limited the transfer of negotiation and quantification capability to government and reproduced a partner-dependency that becomes acute at grant exit. Third, no replacement-financing mechanism is yet in place for thermal ablaters and LEEP devices, even though the installed base is now substantial and will require systematic replacement over the next strategic-plan cycle.

3.3.3 INTEGRATION OF SERVICES AND TOOLS IN NATIONAL STRATEGIES (EQ3)

EQ3.1 Are the gains from the Unitaids supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaids' contributions beyond the project period?

Integration advanced substantially at the policy and operational levels, but the gains are highly vulnerable because financing and supply-chain conditions for sustainability were not secured. Policy integration was a clear strength: HPV DNA testing has been Malawi's preferred primary screening modality since around 2020, the National Cervical Cancer Strategic Plan (2022–2026) was co-

developed and costed with the implementing partner, and the next strategic plan and the accelerated elimination plan to 2030 explicitly include HPV DNA testing, CBSS and AI-assisted screening. Revised SOPs and training manuals now include CBSS. The portfolio's catalytic rather than parallel positioning, captured by staff describing the work as "their project", supported genuine policy integration.

Operational integration was generally strong but uneven: in most sites visited, screening was integrated into ART, MNCH, family planning and outpatient services, with some sites adding dedicated VIA rooms within ART clinics. Furthermore, HPV samples were transported through existing sample transport systems, and cervical cancer screening and awareness activities were integrated into HSA work flows. Integration of HPV testing onto GeneXpert and the Abbot platform was technically successful. However, it depended on adequate equipment, staffing and supplies: after two of three GeneXpert machines were stolen in one district in 2024, the remaining four-module machine prioritised TB samples, then viral load and early infant diagnosis, leaving HPV samples to wait, LIMS was introduced late and remained unstable, sample preservation and cold chain were poor, and fuel shortages disrupted rider transport. Scalability is further constrained by single-provider sites, an incomplete LEEP mentorship pipeline, and inadequate cold-chain and storage at primary facilities. Sustainability is most threatened by financing: once Unitaidd/CHAI support ended, HPV testing largely stopped or was limited to WLHIV through PEPFAR-supported programmes.

The additional district fieldwork qualified this picture in two ways. First, it provided a partial counter-example. One remote border district sustained screening and treatment after partner support was withdrawn. Staff attributed this to integrating trained providers into routine facility rosters during the active period, so the service was "owned" as everyday practice rather than treated as a study, and to the continued presence of another partner. Even there, however, HPV DNA testing had ceased for lack of cartridges, and the district had reverted to visual inspection. Second, the way the portfolio exited emerged as a distinct and serious weakness. Laboratory staff reported that the cartridge supply stopped abruptly and without warning. They had assumed the programme "has come to stay" until supplies simply ran out, a break one respondent said had "caught us unaware". One constructive legacy was also recorded: screening registers were revised to capture histopathology results, closing the earlier data gap. The main lesson is that the absence of advance, transparent transition planning turned a foreseeable funding cliff into an avoidable shock at facility level.

EQ3.2 Which financing approaches-across public, private, and donor sources-are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?

No financing approach has yet proved capable of sustaining domestically financed HPV services at scale, the dominant cost driver is the HPV cartridge, which district budgets cannot absorb. Interviews point to four structural reasons. First, HPV cartridge costs remain too high for district allocations, which cannot absorb them. Second, the country did not build independent capacity to negotiate or procure HPV commodities during the portfolio period, remaining a price-taker. Third, the political economy discourages domestic financing: government often treats donor-supported programmes as donor responsibilities, while resources remain concentrated in other programs. Fourth, the catalytic model ended largely at procurement, without a transition to government absorption.

The financing approaches that show most promise are therefore those that bridge donor procurement

and government absorption: a multi-year co-financing transition with binding government commitments, proposed independently by senior implementing partner staff and the national programme coordinator, leveraging of pooled mechanisms such as the Global Fund, which already provided proof-of-concept through NFM2 re-programming and an NFM3 budget line, and parliamentary and political advocacy for a dedicated cervical cancer budget line.

EQ3.3 Were best practices from early-adopter countries applied to accelerate cervical cancer programming in other countries?

Cross-country best-practice transfer was a weak area of the portfolio, even though Malawi generated several practices of clear comparative value. District coordinators consistently reported having no platform to share lessons across countries and minimal knowledge of comparable Unitaids-supported programmes elsewhere. Within-country quarterly review meetings across districts supported peer learning, but the structured regional or south-south exchange envisaged in the portfolio's design was not visible at the sub-national level. Senior implementing partner staff and the national programme coordinator referred to regional and global engagement, but neither described concrete mechanisms by which Malawian implementation experience, such as early HSA-based community follow-up or use of the viral load courier network, had been packaged and transferred to other countries, or vice versa. South-south learning was thus conceived at the global and partner level but did not reach the operational levels where adaptive learning is most needed.

The additional district interviews did, however, identify within-country learning mechanisms that functioned effectively and that could be built upon. A district coordinator described active national-level WhatsApp groups linking cervical cancer coordinators and data clerks across districts, through which implementation experience and current practice were routinely exchanged, alongside national review meetings whose loss after the active period was keenly felt as a setback to motivation and quality improvement. The same respondent noted that lessons generated during implementation were being fed directly into the ongoing revision of the national cervical cancer protocol and guidelines. These domestic channels demonstrate that the appetite and infrastructure for peer learning exist, the gap is specifically the absence of an equivalent structured mechanism connecting Malawian district-level implementers with their counterparts in other portfolio countries.

3.3.4 IMPLEMENTATION EFFICIENCY (EQ4)

EQ4.1 How timely, cost-efficient/ cost-effective was implementation and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts?

Implementation achieved meaningful efficiency gains by building on existing systems and lower-cost cadres, though same-day efficiency was constrained by laboratory turnaround and a formal value-for-money assessment was beyond the scope of this case study. Several mechanisms contributed to efficiency. The technical-partner model used MoH providers rather than parallel project staff, keeping capacity in the health system and avoiding duplicate structures. Integrating HPV testing onto existing GeneXpert platforms avoided the cost of a separate molecular-laboratory network, and sample transport used the existing HIV viral load courier schedule. Task shifting, LEEP to clinical officers, and screening and CBSS to nurses and HSAs, delivered services through lower-cost, higher-retention cadres.

Two factors limited efficiency. First, same-day test-and-treat under HPV testing was rarely achievable, because laboratory turnaround introduced delays and additional follow-up costs. Second, equipment downtime (stolen or queued GeneXpert modules, air-conditioning failures) and commodity stockouts reduced throughput.

The additional laboratory interviews underline that efficiency at the testing step was strongly conditioned by platform capacity, which varied markedly across districts. One district relied on a single four-module GeneXpert shared with the tuberculosis, viral load and early-infant-diagnosis programmes, which created acute morning congestion, compelled staff to run HPV samples in a fixed early window and to process residual samples overnight, and pushed the turnaround of competing assays toward the upper limit of their targets, by contrast, a better-resourced district laboratory operated a sixteen-module platform that absorbed HPV alongside other testing with comparatively little friction. This heterogeneity indicates that the efficiency of multi-disease integration is contingent on module headroom relative to local demand, and that a uniform integration model will yield very different throughput and turnaround outcomes across districts unless dedicated capacity is matched to volume.

EQ4.2 Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments?

Learning was captured and incorporated effectively into national policy, and the published evidence base, but strategic sharing across countries was limited. The portfolio generated substantial evidence base, including a published five-country HPV implementation study, a five-country AVE validation study, and multi-country CBSS and retention-to-follow-up research. This learning was incorporated directly into national instruments: CBSS and AVE are reflected in the next strategic plan and revised SOPs, and the implementing partner's technical-partner role enabled timely translation of evidence into policy. Within Malawi, quarterly review meetings supported peer learning across districts. The principal weakness, as noted under EQ3.3, was the absence of operational-level mechanisms to share Malawian learning with, and absorb learning from, other portfolio countries.

EQ4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?

Operational and commodity risks were generally well managed, but the most consequential strategic risks, financing sustainability and equipment lifecycle, were identified yet inadequately mitigated. Commodity-supply risks were managed well: stock was monitored against consumption, HPV cartridges were added to district pharmacy stock-card systems, and cartridges were stored in the pharmacy and transferred to the laboratory daily to prevent misuse. The sustainability risk of a catalytic-exit model was recognised as no financing transition was put in place, and HPV services contracted or stopped entirely when the implementing partner exited. Equipment-lifecycle risk was also flagged: the 570 thermal ablaters and existing LEEP devices will need servicing and replacement, but no national maintenance or replacement system exists yet. Workforce-continuity risk at single-provider sites, and the LEEP certification backlog, were identified but not fully resolved. There was no formal, documented risk-management framework for the cervical cancer portfolio at the country level. Risk management was largely operational and reactive rather than strategic and anticipatory.

The additional fieldwork identified one further risk that was neither anticipated nor managed: how the

exit was communicated. Laboratory respondents had expected the programme to be permanent and said the cartridge supply stopped without warning, leaving them “caught unaware”. In their view, this abrupt loss of service was avoidable and should have been prevented by clear, advance notice of when the project would end. This reinforces the broader finding that the portfolio’s most consequential risks were strategic and transition-related rather than operational.

3.3.5 OVERVIEW OF KEY LESSONS FOR THE LEARNING THEMES

Implementation lessons are organised below across the six portfolio learning themes, followed by the six Malawi-specific themes identified during the inception phase. Each draws on evidence triangulated across national, district and facility-level informants.

1. **Service delivery models and commodity supply** *(This theme examines various service delivery models to increase access and coverage. It will assess the effectiveness of these supply chains and the utilisation of commodities, especially thermal ablation devices, within the context of cervical cancer elimination programmes).*

Multiple delivery models proved effective: facility-based integration into ART, MNCH, family planning and outpatient services, community-based self-sampling through HSAs, same-visit thermal ablation, and task-shifted LEEP in district hospitals. The most important supply lessons concern commodities. Procurement was quantified from district demand estimates and channelled through UNICEF and commodities were distributed during MoH supervisory visits and logged in district pharmacy stock-card systems. Cartridges were the most problematic commodity, because of periodic global shortages and a supplier requirement for upfront payment. One district reported a two-month reagent stockout and has been unable to procure reagents since direct support ended. Distribution piggybacked on existing rider networks and viral load schedules, which was efficient but faltered when no viral load samples were due, or fuel was unavailable. Storage was the weakest link: cartridge theft prompted a move to pharmacy storage, wet swabs without preservative developed fungal growth, and air-conditioning failures threatened machine performance. Thermal ablaters were widely distributed and used without adverse events, but replacement and maintenance of ageing equipment are now the priority supply-chain risk.

2. **Continuum of care** *(This theme focuses on understanding how effectively women who screened positive for HPV, as well as for precancerous or invasive cervical lesions were linked to appropriate treatment, including the effectiveness of the follow-up mechanisms that support these women through the continuum of care).*

Strong initial continuum-of-care performance (92% treatment among eligible women, 78% triage linkage) depended on a functioning HPV-to-VIA-to-treatment pathway, clear counselling that distinguished HPV positivity from cervical cancer, tracking registers and HSA follow-up, and same-visit thermal ablation. The experience points to several lessons: early confusion between HPV positivity and cancer can disrupt the whole pathway and must be addressed through information, education, communication and counselling, same-day test-and-treat is rarely feasible because HPV results require laboratory processing, male involvement consistently affects treatment uptake, and referral transport costs were not consistently covered.

3. **Leave No One Behind (LNOB), equity and gender barriers** *(This theme focuses on lessons regarding gender, equity and social inclusion, and how services increase access for vulnerable women, including women living with HIV, rural women and those living in poverty).*

The portfolio, particularly through CBSS, reached women who facility VIA-only models would have missed. Several groups nonetheless remained under-served: women who do not use HSA services at the village clinics (the main CBSS access point) or visit health facilities regularly, women near

international borders, women outside HSA catchment areas, and sex workers, women with disabilities and women with chronic illnesses, who were not explicit targets. Three lessons follow: gender norms strongly shape access, so future programmes should build in gender-transformative components from the outset, religious and cultural modesty norms favour self-sampling over VIA, making CBSS well suited to conservative settings, and the limited, late engagement of civil society organisations was a missed opportunity to reach women through community structures with a stronger prevention focus.

4. **Programming at scale** *(This theme interrogates factors that facilitate the national scale-up of successful interventions different steps/phases of country journey to achieve scale, and how pilot projects can be effectively transitioned to national-level implementation).*

Several factors supported scale-up: the technical-partner role sat within the MoH, the programme used Ministry providers rather than parallel staff, testing was integrated onto existing GeneXpert platforms, task-shifted LEEP was geographically prioritised, and cross-district review meetings shared learning across sites. Several constraints were equally significant: single-provider sites were fragile, LEEP mentorship and certification did not keep pace with training, and primary facilities often lacked cold-chain and storage for HPV samples.

5. **Sustainable financing** *(This theme examines the primary cost drivers associated with screening and treatment and explores which financing approaches have the greatest potential to enable the sustainable scale-up of cervical cancer elimination efforts).*

The catalytic funding model delivered strong short-term results but did not create conditions for domestic continuity. The cost of HPV testing remains the main barrier, the model left a gap between donor procurement and government absorption, and national negotiation or procurement capacity was not built. Furthermore, policy advocacy needs to recognise and address the fact that policy implementation requires resources.

6. **South-South learning** *(This theme considers mechanisms for effective collaboration and knowledge sharing between countries, with a particular emphasis on South-South learning. The evaluation will consider the role of knowledge products and other means of enhancing learning and collaboration across different contexts).*

While within-country quarterly reviews supported peer learning across districts, District coordinators reported no platform for cross-country exchange. Global and Unitaid partner-level knowledge sharing existed but did not reach the operational levels where peer-exchange platforms can help district coordinators and laboratory managers learning from comparable contexts.

Evidence from multi-country CBSS studies translated clearly into revised SOPs, training manuals and the next strategic plan. The lesson is that evidence translates most effectively when the implementing partner is positioned as a technical partner drafting policy instruments, the MoH is co-investigator or PI, and policy revisions are timed to evidence availability. Scale-up nonetheless remains dependent on partner financing.

Malawi-specific learning themes

Multi-disease diagnostic platform leverage (GeneXpert): Integrating HPV testing onto GeneXpert was technically feasible and operationally useful but introduced trade-offs: TB and HIV samples take

priority, capacity limits prevented same-visit results, and multi-disease platforms created dependencies on other disease funding streams (PEPFAR sustained HPV testing only for WLHIV after exit).

Task shifting for LEEP: Task shifting LEEP to clinical officers was strategically sound and safe and professional acceptance was secured through curriculum co-development with the Obstetricians and Gynaecologists Association. Persistent challenges are completing mentorship and maintaining equipment, prompting a recommendation for decentralised mentorship using central-hospital specialists where district volumes are low.

AVE as an assistive screening tool: AVE performed better than naked-eye VIA but less well than HPV DNA testing and was well received once photography concerns were addressed. It is best positioned as an assistive primary-care tool rather than a replacement, WHO recognition creates a window for inclusion in the next strategic plan, and, after the developer organisation closed, any successor will need careful arrangements for source code, data access and licensing, on which country-level affordability will depend.

Laboratory systems optimisation: Gains included integrating HPV samples into existing courier routes, introducing conventional laboratories for higher throughput, and incorporating HPV commodities into pharmacy stock systems. Persistent constraints included inadequate sample preservation and cold chain, late and unstable Laboratory information management system (LIMS) deployment, air-conditioning failures, chronic molecular-laboratory staffing shortages, and the absence of external quality assurance for HPV testing (unlike TB, viral load and Early infant diagnosis (EID)). Laboratory integration does not follow automatically from using existing platforms, it requires dedicated investment in cold chain, sample handling, information systems, quality assurance and staffing.

Decentralised mentorship and workforce sustainability: Where it was completed, the CECAP-aligned mentorship model worked well: three to four mentorship visits built providers' confidence and competence, with district coordinators acting as anchors. Sustainability after the grant was mixed — some districts continue HPV testing with PEPFAR support, others have reverted to VIA, and services stall whenever the only trained provider leaves. Two lessons follow: mentorship needs to be recurring and properly resourced, and because single-provider sites are too fragile, every facility should have at least two trained providers by default.

Summary of cross-cutting lessons

- **Catalytic procurement without co-financing creates discontinuity,** a structured, multi-year co-financing arrangement with binding government commitments would help protect investments.
- **HPV DNA testing is the right primary screening modality but remains unaffordable for the MoH,** country-level negotiation capacity and regional pooled procurement should be strengthened.
- **Community-based self-sampling is feasible, acceptable and scalable,** but continued scale-up requires cold-chain, transport and laboratory-throughput solutions and meaningful civil society organisation (CSO) involvement.

- **Task shifting works, but mentorship pipelines do not keep pace with training**, a structured, decentralised mentorship system is the main implementation gap, mainly in the provision of LEEP services.
- **Leveraging existing laboratory systems requires additional investment**: training of staff, investment into the cold chain, and improving laboratory information systems.
- **Single-provider sites are structurally fragile**, future designs should require at least two trained providers per site.
- **Multi-disease platform integration creates both synergies and dependencies**, scale-up needs dedicated HPV module capacity or alternative high-throughput platforms in higher-volume districts.
- **Civil society engagement was inadequate and missed an equity opportunity**, early sub-granting with Memorandum of Understandings (MOUs) and capacity building would extend reach beyond HSA catchment areas.
- **Same-day test-and-treat under HPV DNA is rarely feasible**, robust linkage systems are the realistic alternative and achieved a 92% treatment rate among eligible women and 78% triage linkage.
- **Gender norms and male involvement materially shape continuum-of-care outcomes**, male-engagement components should be built in from the outset.
- **South-south learning was conceived globally but not operationalised**, structured peer-exchange platforms for district coordinators and laboratory managers are needed.

3.3.6 OVERVIEW OF THE SIX HYPOTHESES

The Malawi findings provide evidence to refine the six portfolio hypotheses, particularly with respect to the conditions under which each effect is realised. The table below summarises the key findings and suggested refinements across all six hypotheses.

Table 19: Overview of hypotheses, key findings and suggested refinements

Hypothesis	Key findings and suggested refinement
1. Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	• CBSS in two implementation districts was feasible, acceptable and effective, with ~ 80% linkage to VIA services for eligible women and high demand, particularly in modesty-sensitive contexts, it is now in the next strategic plan and revised SOPs, sustainability remains conditional on partner financing. • Refinement: confirm hypothesis, adding that policy translation requires implementing-partner technical positioning, government PI/co-PI status on the underlying studies, and policy revision timed to

Hypothesis	Key findings and suggested refinement
	evidence availability.
2. Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	- Integration with ART, MNCH and family planning improved access and reduced loss to follow-up, same-day screen-and-treat with HPV was rarely achievable due to laboratory turnaround, whereas same-visit thermal ablation after VIA worked well. Refinement: separate the hypothesis into facility-level integration (strongly supported) and same-day HPV results (not currently feasible, linkage systems are the realistic substitute).
3. AI-AVE and HPV DNA testing increase HW diagnostic confidence, improving continuity of care	- HPV DNA testing increased provider confidence and willingness to treat, AVE was well received but did not reach pre-specified accuracy thresholds, training and decentralised mentorship were essential, and LEEP mentorship backlogs limited reach. Refinement: confirm hypothesis, adding that ongoing structured mentorship (not one-off training) is required for sustained competence and that adoption is shaped by perceived reliability and case volumes.
4. Proof of concept triggers national government buy-in, leading to policy and budget inclusion	- Proof-of-concept work catalysed national policy adoption of HPV DNA testing, CBSS, recognition of AVE, and task-shifted LEEP, domestic budget allocation has not followed. Refinement: distinguish policy adoption from budget adoption, proof-of-concept supports policy adoption where political will exists, but budget adoption requires separate, explicit advocacy and financing instruments.
5. Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	Supported in part. Unitaids' pooled procurement across Malawi, Zambia, Rwanda and other countries delivered HPV cartridges and thermal ablaters at prices that the MoH considered would otherwise have been financially infeasible at scale, and the 570-unit thermal ablator allocation enabled near-universal district coverage. However, the price-negotiation channel ran partner-to-

Hypothesis	Key findings and suggested refinement
	supplier without routine MoH participation, and procurement bypassed CMST, limiting the transfer of negotiation, quantification and supply-chain capacity to government. HPV cartridge stockouts during the grant period showed that pooled procurement reduced unit cost but did not by itself secure continuity of supply, given the supplier's upfront-payment terms and global cartridge shortages. • Refinement: pooled procurement is necessary but not sufficient for sustained country-level access, the hypothesis should explicitly couple price negotiation with (i) a deliberate transfer of negotiation and quantification capacity to government, (ii) integration of donor-procured commodities into the national supply-chain system, and (iii) a replacement-financing pathway for durable equipment such as thermal ablaters and LEEP devices.
6. Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	• District coordinators reported no platform for cross-country learning, within-country quarterly reviews supported peer learning, global and partner-level engagement existed but did not reach operational levels. • Refinement: hypothesis weakly supported, structured operational-level peer exchange (district coordinators, laboratory managers) is required, passive dissemination and global engagement alone do not produce diffusion.

3.4 CONCLUSIONS AND CONSIDERATIONS FOR THE WAY FORWARD

The Malawi case study confirms that Unitaids' 2019–2025 investment delivered important gains in cervical cancer secondary prevention. HPV DNA testing was introduced and adopted as Malawi's preferred primary screening method, community-based self-sampling was demonstrated and is now being incorporated into policy, thermal ablation and decentralised LEEP expanded treatment access, and a five-district AVE study was completed with the MoH as PI. However, these gains remain heavily dependent on partner financing, a weakness the catalytic model did not adequately address, and the portfolio's equity reach fell short of what stronger civil society engagement and explicit gender-transformative design might have achieved.

The recommendations below distinguish high-priority strategic shifts from operational improvements. They are aimed primarily at Unitaids and partners designing the next phase of cervical cancer investment, but are also relevant to the MoH, civil society organisations and other implementing partners. They are sequenced by priority for the next investment cycle and by the time horizon for implementation.

3.4.1 HIGH-LEVEL (STRATEGIC) RECOMMENDATIONS

- **Replace the catalytic-exit model with a multi-year co-financing transition.** Use binding co-financing arrangements that reduce donor procurement and increase government and pooled procurement over five years. Reflect commitments in national plans and track them through the Cervical Cancer Steering Committee.
- **Embed CBSS scale-up with secured financing in the next strategic plan.** Position CBSS as a flagship intervention, secure sustainable financing models for CBSS after the end of donor support, invest in cold chain and sample transport, and expand laboratory capacity alongside scale-up.
- **Pursue political and parliamentary advocacy for a dedicated cervical cancer budget line.** Support government-led advocacy with Parliament, the Ministry of Finance, civil society and women with lived experience, using both the economic and epidemiological case for prevention.
- **Build country-level commodity-negotiation capacity and pursue pooled procurement.** Strengthen quantification, supplier engagement and contract management within relevant national bodies, and pursue regional pooled procurement to reduce per-test costs.
- **Establish a sustained, decentralised mentorship and quality-assurance system.** Fund recurring mentorship for HPV testing, LEEP, thermal ablation and AVE, with central-hospital support where district case volumes are low. Introduce external quality assurance for HPV testing and operationalise the post-training QA system in year one.
- **Plan the equipment lifecycle for thermal ablaters and LEEP devices.** Establish preventive maintenance, malfunction reporting and financing for replacement so service availability does not decline as equipment ages.
- **Sub-grant national civil society organisations for demand creation and equity reach.** Provide

early sub-grants, formal MOU and clear deliverables so CSOs can extend reach beyond HSA catchment areas through advocacy, community education and follow-up.

3.4.2 OPERATIONAL RECOMMENDATIONS

- **Design programmes around the realities of partner presence in Malawi's political economy.** Use financing and advocacy measures that make government co-financing visible, expected and politically prominent, so that policy and budget commitments are taken up once donor support ends to enable policy and budget adoption after the end of donor support.
- **Develop a district peer-learning mechanism.** Institutionalise quarterly peer-learning forums with rotating site visits across districts.
- **Establish operational-level south-south exchange.** Fund structured peer exchange between Malawian teams and counterparts in other portfolio countries around specific implementation themes.
- **Require at least two trained providers per facility.** Single-provider sites are fragile, train at least two staff per site and include cervical cancer screening in routine duty rosters.
- **Address GeneXpert capacity constraints in higher-volume districts.** Provide additional HPV-dedicated module capacity or alternative high-throughput platforms where demand is highest.
- **Invest in cold chain and sample preservation at primary facilities.** Provide working refrigeration, proper preservation media and clear transport timelines for HPV samples.
- **Stabilise LIMS and introduce external quality assurance for HPV testing.** Test LIMS before rollout, provide technical support, and make external quality assurance part of accreditation.
- **Strengthen reporting of LEEP and biopsy data in District Health Information System 2 (DHIS2).** Include these indicators in DHIS2 and support routine data-quality assurance.
- **Develop an AVE regulatory and policy framework before commercialisation.** Define standards for validation, data governance, image storage, licensing and use.
- **Use strong community mobilisation before outreach days.** Support outreach with advance community announcements and coordination with traditional and faith leaders.
- **Strengthen long-term follow-up with counselling, reminders and transport support.** Use structured counselling, scheduled appointments, reminders, referral support and community outreach to improve retention.
- **Integrate explicit male engagement into community activities.** Include male-targeted sessions in community settings and offer couples counselling where treatment requires abstinence.

ANNEXES

This case study is supported by four annexes. Annex A presents an anonymised list of stakeholders consulted through key informant interviews during the data collection phase. Annex B lists the documentation reviewed during the case study. Annex C provides the evidence matrix mapping each finding in the Findings and lessons section to direct quotations from key informant interviews, with participant anonymity preserved through coded attributions and redaction of location identifiers. Annex D lists the references cited inline in the preceding sections, formatted to support direct import into reference management software.

ANNEX 12.C.A. LIST OF STAKEHOLDERS AND PEOPLE CONSULTED

Data collection took place during April and May 2026. Seventeen key informant interviews were conducted with stakeholders across national, district and facility levels, complemented by one focus group discussion with women beneficiaries of community-based self-sampling. To preserve participant anonymity in line with the ethical framework agreed during the inception phase, this annex lists stakeholders by role category only, identifying details (district, facility, individual name) are not reported. The anonymised codes used here correspond to those in Annex C (Evidence Matrix).

Table 20: Anonymised list of stakeholders consulted

Code	Role category	Method / period
KII-01	Senior implementing partner staff, national level (responsible for programme management of the Unitaid grant)	KII, April 2026
KII-02	Senior MoH cervical cancer programme staff, national level	KII, April 2026
KII-03	Executive of national civil society organisation representing women living with HIV	KII, April 2026
KII-04	District cervical cancer coordinator (one of the implementation districts)	KII, April 2026
KII-05	District cervical cancer coordinator (one of the implementation districts)	KII, April 2026
KII-06	District cervical cancer coordinator (one of the implementation districts)	KII, April 2026
KII-07	District laboratory technologist (one of the implementation districts)	KII, April 2026
KII-08	District laboratory technologist (one of the implementation districts)	KII, April 2026
KII-09	District hospital cervical cancer provider (one of the implementation districts)	KII, April 2026
KII-10	District hospital cervical cancer provider (one of the implementation districts)	KII, April 2026

Code	Role category	Method / period
KII-11	Health centre cervical cancer provider (one of the implementation facilities)	KII, April 2026
KII-12	Health centre cervical cancer provider (one of the implementation facilities)	KII, May 2026
KII-13	Health centre cervical cancer provider (one of the implementation facilities)	KII, April 2026
KII-14	Health centre cervical cancer provider (one of the implementation facilities)	KII, April 2026
KII-15	District cervical cancer coordinator (one of the implementation districts)	KII, April 2026
KII-16	District laboratory manager (one of the implementation districts)	KII, April 2026
KII-17	District laboratory technologist (one of the implementation districts)	KII, April 2026
FGD-01	Focus group discussion with ten women beneficiaries of community-based self-sampling (one of the implementation facilities)	FGD, May 2026

ANNEX 12.C.B. DOCUMENTATION REVIEWED

The case study drew on the following categories of documentation, accessed through the implementing partner, the MoH, Unitaid, WHO, and publicly available academic and policy sources. Specific document titles are listed where these have been formally cited, categories are listed where multiple documents within a class informed the analysis.

Unitaid and implementing partner programme documents

Unitaid/CHAI Malawi project agreement (objectives, results framework, budget).

Clinton Health Access Initiative. *Overview of the Malawi Cervical Cancer Program*. Slide deck presented at the Unitaid Investment Evaluation Inception Meeting, Lilongwe, 10 March 2026. Provides the implementing partner's synthesis of programme history, key achievements by phase (2020–2022 and 2023–2025), and 2025–2027 priorities including the elimination demonstration in Machinga.

Clinton Health Access Initiative. *Unitaid Final Closure Report (Cumulative), Grant 'Preventing deaths from Cervical Cancer by catalysing the use of Optimal screening tests and treatment devices', 1 July 2019 – 30 June 2025*. Submitted to Unitaid, 17 February 2025. Provides cumulative portfolio-level performance, country achievements, market-shaping outcomes, and preliminary results of the multi-country CBSS implementation research and the Malawi–Rwanda–Zambia retention-to-follow-up study.

CHAI Malawi annual and semi-annual progress reports submitted to Unitaid, 2019–2025.

Performance and monitoring data: screening coverage, screen-positive rates, treatment uptake, linkage to care, and commodity utilisation by facility and district.

Financial reports: CHAI Malawi expenditure and budget utilisation data.

Research and evaluation reports: formative research, operational research, and internal evaluations commissioned under the portfolio, including the Machinga–Balaka CBSS feasibility studies and the five-district AVE evaluation.

Clinton Health Access Initiative. *Leveraging Global Fund Resources for Cervical Cancer*. CHAI Working Brief, February 2023. Documents the Malawi, Kenya and Zambia experience of integrating cervical cancer activities into Global Fund New Funding Model submissions (NFM2 and NFM3), including the Malawi reprogramming of unused thermal ablation and LEEP equipment and the dedicated NFM3 budget line.

Ministry of Health policy and programme documents

Malawi National Cervical Cancer Prevention and Control Strategy (2022–2026).

Malawi National Cervical Cancer Screening and Treatment Guidelines and revised standard operating procedures (in revision with WHO support, 2026).

DHIS2 routine health data on cervical cancer screening volumes, positivity rates and treatment by

district (2019–2025).

Malawi Health Sector Strategic Plan (current cycle) and cervical cancer implementation plans.

Malawi national roadmap toward WHO 90-70-90 cervical cancer elimination targets (accelerated elimination plan to 2030, in development).

WHO and global reference documents

WHO Global Strategy to Accelerate the Elimination of Cervical Cancer (2020).

WHO Guidelines for Screening and Treatment of Cervical Pre-Cancer Lesions (2021 update) and subsequent WHO recommendations on AVE.

WHO Malawi cervical cancer country profile and AFRO regional data.

Peer-reviewed and grey literature

Joseph J, Demke O, Ameyan L, et al. *Human papillomavirus testing using existing nucleic acid testing platforms to screen women for cervical cancer: implementation studies from five sub-Saharan African countries.* *BMJ Open* 2023;13:e065074. doi:10.1136/bmjopen-2022-065074. Five-country study (Malawi, Nigeria, Senegal, Uganda, Zimbabwe) of operational feasibility of HPV testing on existing NAAT platforms, including detailed Malawi sub-cohort findings.

African AVE Collaborative (Phiri H, Uwinkindi F, Diop M, et al.). *A prospective 5-country observational study of the performance of a new artificial intelligence-based tool for cervical pre-cancer screening in the African region*. Preprint, 2025. External validation study of Automated Visual Evaluation in Malawi, Rwanda, Senegal, Zambia and Zimbabwe, Malawi cohort of 4,618 women with the Reproductive Health Directorate as Principal Investigator.

Additional peer-reviewed articles on cervical cancer screening, HPV self-sampling, thermal ablation and women living with HIV in Malawi (PubMed, Google Scholar).

Other Unitaaid-commissioned research publications arising from CHAI–Malawi funded cervical cancer research.

Global Cancer Observatory database (IARC) 2020 and 2022 cervical cancer incidence and mortality estimates for Malawi.

ANNEX 12.C.C. EVIDENCE MATRIX: SUPPORTING QUOTATIONS FROM KEY INFORMANT INTERVIEWS

This annex maps the principal findings reported in the Findings and lessons section to illustrative quotations drawn directly from the key informant interviews. Quotations are reproduced verbatim except for the redaction of identifying details, which appear in square brackets. Source codes correspond to the anonymised stakeholder list in Annex A.

C.1 Evidence supporting responsiveness of the programme to needs and contexts

Table 21: Evidence matrix, responsiveness to needs and contexts

Finding	Supporting quotation	Source
Programme intent aligned with cervical cancer elimination agenda	<i>"The bigger picture of it is to reduce morbidity and mortality from cervical cancer in the country, especially looking at the broader holes in the national agenda. So ensuring that we are able to screen at least 70% of eligible women with high-sensitive screening modalities, but also treat pre-cancer, even invasive cancer. ... More so that we are living in a country where cervical cancer incidence prevalence might be highest world over. So we are trying to rephrase that notion."</i>	KII-01
HPV DNA testing addresses limitations of VIA-only screening	<i>"When they came in with the HPV DNA testing, the women thought it was a very easy method. Of course it is an easy method, since it gives them some privacy. You just give them the test kit, they collect the sample themselves, they give us the sample, then we send it for testing. ... With this method, we were able to screen over 50 women a day after we started. In the first three days, we had many clients come for testing."</i>	KII-11
HPV testing easier than VIA for staff workload too	<i>"In terms of workload, I would recommend HPV DNA testing. ... It is easier and private for the women. And for us, it is just a matter of collecting the samples, registering them, and then sending them to the lab. Then we only need to do VIA on those who are found to be positive. Unlike testing everyone with VIA, which would be a much higher workload."</i>	KII-11
CBSS reconfigures access for hard-to-	<i>"It is very hard for a woman from a rural background, a very far place, a hard-to-reach area, to reach the</i>	KII-04

Finding	Supporting quotation	Source
reach women	<i>district just to get screened for HPV or to give a sample for HPV. But [the implementing partner] went to that hard-to-reach area to collect the sample in her own comfortable place. Then she would get the result in her comfortable place. So I think they also solved the problem of transport and trouble."</i>	
Privacy and cultural fit in religiously conservative communities	<i>"[Our district] is mainly dominated by Muslims. Women in this community do not feel free to expose themselves during medical examination like visual inspection with acetic acid. ... If we are to prioritise the method that is offering a private entity to women, it would help us a lot."</i>	KII-12
ART integration reaches highest-risk population	<i>"A very good percentage of women that come for cervical cancer screening services are women on ART. ... It can be maybe 80% or 88% of the women seeking cervical cancer screening services are those living with HIV."</i>	KII-09
Border-area follow-up failures	<i>"In our district, we are bordering [a neighbouring country]. So, the facilities which are near the border, women come from the other country to seek services, including cervical cancer screening. But they do not give their true location. They give false addresses which are within Malawi. ... When trying to find them, they are nowhere to be found in the villages they named, and even when trying to call them when they are back home, the numbers do not work."</i>	KII-05
Limited engagement of civil society partners	<i>"For [the implementing partner], I wouldn't say we have worked together. It was just two or three months. ... Of course, we were collaborating at the national level, engaging in meetings, technical working groups, this and that. But implementing a project, I think they just came to us. ... We have never received any funding from [the implementing partner]."</i>	KII-03
CSOs bring a prevention orientation that	<i>"Direct government funding is there, but if you look at what goes to the direct government funding, they</i>	KII-03

Finding	Supporting quotation	Source
complements biomedical partners	<i>always look at the biomedical. ... But not much goes to prevention. So, for CSOs, we do more of prevention than treatment, and if you look at treatment versus prevention, prevention is a bit cheaper than treatment. So, if we focus more on prevention, we might even alleviate some of these problems."</i>	
Programme addressed provider and awareness gaps but did not reach all areas	<i>"...before the coming of the project ... we had the shortage of cervical cancer providers. ... most of [the] people were not aware of the screening itself because only a few facilities were providing the screening. ... although the programme was being implemented in the district, we still had some areas where we did not manage to reach them."</i>	KII-15
Screening prioritised highest-risk women through ART and STI services	<i>"...according to the Cervical Cancer Strategy for Malawi, we are supposed to screen every woman who is HIV positive. ... it was easy for us to allocate some of these providers to go and do the screening in ART clinics ... we still also have some women maybe coming to the hospital because of recurrent STIs ... these are also women that need special attention."</i>	KII-15

C.2 Evidence supporting key achievements and results

Table 22: Evidence matrix, key achievements and results

Finding	Supporting quotation	Source
Strong service delivery during the active grant period	<i>"Since that time, everything went well. We had people everywhere. We had people working in every facility providing the services. ... But after the support stopped, things were not going well."</i>	KII-06
CBSS as a game-changer	<i>"The community self-sampling was a game-changer for our women. ... Women had been used to the conventional VIA, but the coming of the self-sampling, it made it easier because they were able to understand the instructions. ... The only best way to scale up cervical cancer screening is through the HPV DNA</i>	KII-02

Finding	Supporting quotation	Source
	testing.”	
Thermal ablation transformative for pre-cancer treatment	<i>“Thermo coagulators have been a game changer in the pre-cancer treatment area because the other modalities that were being used, especially cryotherapy, was a bit expensive. ... With funding challenges, facilities sometimes cannot manage to sustainably refuel the gas. ... Two, when you talk of outreach services, because of the infrastructure of cryotherapy, it’s nearly impossible to get the infrastructure to the community.”</i>	KII-01
Same-visit thermal ablation in primary health facilities	<i>“After we collect the HPV sample ... those who were HPV positive, we did VIA ... For those with less than 70% of the cervix affected, we did thermoablation. ... Yes, at the facility.”</i>	KII-11
Strategic rationale for LEEP task-shifting to clinical officers	<i>“Previously, it was only a specialist. It was a specialised procedure, only for medical doctors to conduct. ... But you know, medical doctors do not stay long ... they go for career progression, specialising. So, looking at this issue, we checked, we consulted the Medical Council of Malawi, to allow us if we can task-shift, by engaging the clinical officers, because clinical officers stay very long at the facility.”</i>	KII-02
Workforce capacity built to last beyond grant	<i>“We have built a lot of capacity in providers. We have trained quite a lot of them. We have mentored them, supervised them to the point that I am so confident with service provision, even beyond the lifetime of the grant.”</i>	KII-01
Strong reception of AVE among women and providers	<i>“We had our fears ... the tool uses a mobile phone device, which runs on Android. So you take a picture and then the algorithm will be on the phone to do the assessment. At first the fear was, how would women be receptive of a picture of their cervix? ... But with proper education, even demonstration of how it looks, we were overwhelmed with the demand for AI assisted evaluation. But even on the side of the providers, the reception was excellently good as well. ... The AI tool</i>	KII-01

Finding	Supporting quotation	Source
	<i>was better than naked-eye VIA. Of course, not better than HPV, somewhere in between."</i>	
Demand creation shifted cervical cancer into community discourse	<i>"We came into this space when the community mobilisation ... was the traditional way of doing it. ... People going into the community to discuss health-related issues ... would not [touch] on cervical cancer. ... With the demand creation activities we did, community awareness activities we did, ... we saw that demand for services went up. ... Cervical cancer can be discussed in the communities now."</i>	KII-01
Resolving HPV-positive vs. cancer confusion in counselling	<i>"Some women would think that if you say you are HPV-positive, then that means they have cervical cancer. ... We could easily lose women in the continuum of care. ... If they are HPV-positive, they would not be interested to come back, thinking that they are already dead in the language that they use. But with proper information, ... women are able to be receptive of screening treatment."</i>	KII-01
Outreach screening reaches large numbers when announced	<i>"When the community heard that these two teams were coming for cervical cancer screening, we receive a lot of clients from different angles. ... Even beyond our catchment area ... the mobile van gave us information. ... We experienced a lot of clients with a lot of problems, and they were assisted because the team comes with the clinicians, the gynaecologists, and nurses."</i>	KII-14
HPV testing revealed high positivity and reduced provider workload	<i>"...we could test maybe 20 samples, but 12 would tend to be positive. ... it reduced the number of women to be screened. ... those 8 which are negative were not undergoing VIA. ... Women are really receiving great care ... because of that programme."</i>	KII-17
Active period saw increased uptake and strong multi-cadre teamwork	<i>"...during this period we had a lot of people coming for the services, increased uptake, and also there was teamwork. Starting from the provider, the lab and also ... the referral ... and ... that time we had a lot of</i>	KII-15

Finding	Supporting quotation	Source
	<i>resources available for us to use."</i>	
Same-day treatment for eligible lesions, referral for larger lesions	<i>"...once HPV testing is done and the result is positive, VIA is done, if there is a lesion, same-day treatment is done. ... If it is a bigger lesion, then the client is referred to a central hospital for further management."</i>	KII-17
Pooled procurement reduced unit cost for HPV commodities	<i>"Unitaid worked very hard to probably reducing costs for HPV tests and devices, through what we call pooled procurement. Unitaid was not only supporting Malawi through CHAI, but is also supporting Zambia, Rwanda, some other countries. So they advocated for that pooled procurement, especially on the HPV test kits, which as an individual, they are very expensive. And that's why some of the partners who came in have failed to sustain because of the cost. So they were able to bargain for the cost because they were procuring in bulk."</i>	KII-02
Procurement channel ran through UNICEF and implementing partner, not Central Medical Stores	<i>"We estimated the demand for each district, and then decided on how many cartridges that district in the lifetime of the project would need. And our procurement was managed by ourselves through UNICEF. We were the ones doing the quantification, and we would cascade that up to UNICEF for them to do the procurement. The shipping could come direct to us, and then we do the distribution, of course, not through the central medical stores."</i>	KII-01
Government involvement in price negotiation was limited	<i>"Because the [implementing partner] knew the manufacturers very well, so they were able to do it on their own. Of course, we're just being informed that [negotiation] is being done, just to make sure that the costs are at least affordable. So we weren't much involved in the [advocacy] or whatever, but through the partners."</i>	KII-02
Thermal ablation displaced cryotherapy and achieved near-	<i>"Thermo coagulators have been a game changer in the pre-cancer treatment area because the other modalities that were being used, especially cryotherapy, was a bit expensive. With funding</i>	KII-01

Finding	Supporting quotation	Source
universal use	<i>challenges, facilities would have sometimes they cannot manage to sustainably refuel the gas. Two, when you talk of outreach services, because of the infrastructure of cryotherapy, it's nearly impossible to get the infrastructure to the community. In terms of equitable distribution, yes, we have achieved this. In terms of use, yes, 100% use. To a point that we also, as a country, should already begin to think about replacement, we have distributed, but these are not eternal devices."</i>	
HPV cartridge cost remains the binding constraint on scale	<i>"The costs for the kits is a big challenge, because sometimes partners are unable to afford the costs, but as I indicated, as we are working towards probably the pooled procurement, we should be able to salvage something that we can have reduced costs. Probably most partners are also scared to venture into HPV DNA because of that cost. So if the cost can be affordable, we'll be able to scale up."</i>	KII-02

C.3 Evidence supporting integration into national strategies

Table 23: Evidence matrix, integration into national strategies

Finding	Supporting quotation	Source
Implementing partner positioned as technical partner, not parallel implementer	<i>"From the beginning, we made it clear to the ministry at the national level that this was their project. We are there just to technically support. ... Another good illustration of this is to say that we've never had our own providers in the site where we implemented the project. So it has always been the Ministry of Health providers, facility providers, doing the actual work."</i>	KII-01
Co-development of national strategic plan, SOPs and training manuals	<i>"Right from the beginning, when we were developing standard operating procedures for cervical cancer screening and treatment in general ... we were in the task force that was drafting those documents and we managed to be an important technical partner who brought in the HPV testing aspect into the SOPs. ..."</i>	KII-01

Finding	Supporting quotation	Source
	<i>Even when we were developing the national strategic plan for cervical cancer control, we were there like doing the writing. But you may also be interested to know that we did all the costing of the national strategic plan."</i>	
Same-day test-and-treat compromised by laboratory turnaround	<i>"This is a very big compromise to the strategy because normally it is supposed to be a point-of-care test. A woman comes in, she should get diagnosed within one hour or 30 minutes, she should get her results, and she should get treated. ... But what is happening now is that they just collect the samples, they leave them, and it is up to the ART department to track these women. ... So that delays treatment."</i>	KII-08
HPV testing collapses at district level after exit of support	<i>"At the moment, we are no longer doing HPV DNA testing, because the challenge is we have no cartridges and we have no resources for sample collection. ... The district hospital has also stopped testing. They cannot afford to buy the cartridges for HPV."</i>	KII-06
Cervical cancer politically de-prioritised relative to other programmes	<i>"Compared to other programmes like HIV, EID, malaria, those programmes have full support, maybe more partners to assist. But when you talk about cervical cancer, it is not easy for a partner to help in this programme. ... I think this programme has been ignored for a long time. ... You still do not have even a budget to use for screening."</i>	KII-06
Donor presence may suppress government investment ('uncle paying school fees')	<i>"It's a scenario I can give of an uncle paying for school fees. The father of the child is alive, is able, but because the uncle has offered to pay for the fees, the father would [hold back]. ... Similarly, government can be able to support some of these programmes, but because of the availability of a few other partners that remain, there's that restraint."</i>	KII-02
Catalytic-procurement model leaves	<i>"As a project, we were providing catalytic procurements. ... It's a process for the government and other partners to pick it up from where, let's say, we</i>	KII-01

Finding	Supporting quotation	Source
discontinuity at exit	<i>leave, especially in terms of procurements. ... You and I know our environment, dependence on donors is quite a big thing. ... We procure and then we stop there."</i>	
Proposed multi-year co-financing transition	<i>"Let's say we say let's have a five-year arrangement where we say in the first year we provide, for argument's sake, 500,000 commodities. In the second year, let the government provide 100,000 while we provide 400,000. ... Co-funding with commitments which should be, you know, binding. ... To the point where you know how we teach a baby how to sit and then how to crawl, how to walk."</i>	KII-01
Government willingness exists but is constrained by partner presence and bureaucracy	<i>"We tried to push, but because of the systems, and of course, the bureaucracy that is in government, we never succeeded. People in the meeting promised, no, this has to change, because we had people there with lived experiences who mentioned how they have gone through the troubles to get screened, get treated. ... As government, currently, without a global fund, with the money we receive, we cannot conduct a training."</i>	KII-02
Strong sustainability ask for the next phase of investment	<i>"In the new grant, I would still want that there should be a strong relationship, especially for sustainability. They should be able to push government to sustain some of these services, not rely mostly on partners."</i>	KII-02
HPV testing stopped at exit for want of kits, though treatment continued	<i>"...because we are depending on the partner for provision of all the materials ... now because the partner is no longer here, we are no longer doing the HPV screening ... so we go back to VIA because we don't have the HPV kits."</i>	KII-15
Routine-roster integration sustained service after partner exit	<i>"...we made sure that we owned it at our own, that we did not depend on the ability of a partner for us to be able to provide the service. So we incorporated it in our everyday activity ... that made it easier that we are able to continue providing the service up to now."</i>	KII-15

Finding	Supporting quotation	Source
Abrupt, uncommunicated end of cartridge supply	<i>"...I didn't know that this activity would come to an end the way it ended. ... we thought this is a programme which has come to stay. ... They stopped supplying the HPV cartridges ... it was like something which caught us unaware."</i>	KII-16
Within-country learning via WhatsApp groups, review meetings and guideline revision	<i>"...we have [a] WhatsApp group for the national coordinators and also for the data clerks ... we are able to share the lessons ... in the national meeting, we are also able to share the lessons ... just recently we are reviewing the cervical cancer protocol ... so we are also using the lessons that we shared."</i>	KII-15

C.4 Evidence supporting implementation lessons

Table 24: Evidence matrix, implementation lessons

Finding	Supporting quotation	Source
Continuum of care: male involvement is decisive	<i>"In the way we are organised as a country culturally, men still play a big role in the decision for even our women to get healthcare. So, triaging is fine and good, but when [women] are eligible to receive treatment, because also when they receive treatment, there has to be some abstinence from sexual engagement ... women would say, 'no, no, no, let us allow us to go and consult the husband first.'"</i>	KII-01
Continuum of care: male involvement is a primary access barrier	<i>"Barrier number one is the lack of male involvement. Because we are treating this as only a women's issue. But men need to be involved because they are the decision-makers in their families. If they have the knowledge and are aware of the importance of allowing their women to get screened, it will improve the number of women coming for screening, and even the attitude itself."</i>	KII-05
Continuum of care: tracking registers and HSA follow-up close the	<i>"When we collected the samples, we also collected the person's details ... including their home addresses or phone numbers. So when the results come back, the</i>	KII-04

Finding	Supporting quotation	Source
loop	<i>primary health facility nurse would call those women whose results are ready to come and collect them. Those who are HPV positive would be screened further with VIA, and then treated the right way."</i>	
Continuum of care: women drive demand for results	<i>"Women became too curious if I should use that word. To a point that they were overtaking us as providers before [results] could be returned to the facility. They would already be asking, some of them even coming physically if they don't have access to phones. They would come physically to the facility just to check, is my HPV result ready?"</i>	KII-01
Sustainable financing: HPV cost prohibitive for district budgets	<i>"The HPV test is a very good test, but it is ... more expensive than VIA. So it may take time for the government to start using this test on a large scale, so that women in hard-to-reach areas can also get this service. ... I do not think our district can manage to buy those things."</i>	KII-04
Sustainable financing: vertical donor priorities crowd out cervical-cancer-specific support	<i>"The partners we have in mind ... are not focused on cervical cancer. They have their interests. ... Most of them have said that they come for HIV, they come for TB. You cannot change their interest. They do what they came to do."</i>	KII-06
Sustainable financing: government cannot conduct trainings without partner funding	<i>"As government, currently, without a global fund, with the money we receive, we cannot conduct a training. ... If a facility ... says they had a provider, has retired, or has died, or has gone for further studies, that facility remains without a provider."</i>	KII-02
Sustainable financing: catalytic role narrowly defined as procurement	<i>"But our approach ... has largely been catalytic, yes. But then we procure and then we stop there. If you understand what I mean. You have to catalyse something that's there."</i>	KII-01
Programming at scale: several districts have no partner support	<i>"Yes, we have some districts that have no partners, or they just have a single partner, and they really need to be supported. ... Initially with the PEPFAR [/]Global</i>	KII-02

Finding	Supporting quotation	Source
	<i>Fund, the focus was on women living with HIV, so most of the partners that had that grant, their focus was on women living positively, so to some extent, the women who are negative ... were not prioritised."</i>	
Programming at scale: single-provider facilities are structurally fragile	<i>"In the health centres, there is only one or two providers. So, if that provider is away, then the service will not be available. If women are willing and have come to the clinic to get screened and there is no provider, it will discourage them, and maybe they will not try to come again."</i>	KII-05
Programming at scale: cross-district peer learning works	<i>"I only know about what we do in [facility A] or in [facility B]. But when I meet someone who is far from here, from another district, we can share knowledge. ... They will learn what we are doing better, and we will learn what they are doing better, and we will improve."</i>	KII-04
South-south learning: no cross-country platform at district level	<i>"[Q: How are lessons shared across countries at your level?] I do not know. ... [Q: Do you have a platform to share lessons?] No."</i>	KII-04
Commodity supply: cartridge shortages and upfront-payment supplier model	<i>"There were times where we had completely run out of supply. Especially cartridges I think was a challenge ... Because of the global shortages. But also the supplier for cartridges ... they need upfront payment before they can release the order. ... We could be in positions where we could run dry at some point in time."</i>	KII-01
Commodity storage failures compromised sample integrity	<i>"During the study we were receiving a dry swab. But now, this swab ... was not really dry. It was not in a preservative. ... With passing days, fungus would grow. ... We had a lot of rotten samples and a lot of errors from the molecular lab because of that. ... We also had challenges in transportation. ... Fuel shortages ... affected us a lot, and we got rotten samples because of too many delays of the rider going</i>	KII-08

Finding	Supporting quotation	Source
	<i>to facilities."</i>	
Commodity supply: reagent stockouts disrupt sample processing	<i>"At some point, the lab had no chemicals to process the tests. So the samples took a long time to be tested. And during the rainy season, it was very hard to take the samples on time because of the bad road conditions."</i>	KII-04
Commodity supply: cartridge theft prompted move to pharmacy storage	<i>"In [our district], our cartridges are not kept in the lab for security reasons because we had problems with the safety of cartridges before. ... So, we keep them in the pharmacy even though we have already ordered them. So, every morning, we have to go and get the cartridges that we are supposed to use that day."</i>	KII-08
Leaving no one behind: HSAs do not reach the wider community alone	<i>"These community health workers attached to the government, like the HSAs, they don't reach out to the wider communities. ... They are at the facility, the catchment area, they go [out] once in a while. But if we train the communities, these people are there, they know, they are the ones who feel the pinch. ... An HSA has to look at 100 or 1,000 people, it's not possible."</i>	KII-03
Leaving no one behind: services depend on community participation	<i>"Without community, we cannot achieve anything. Because even if you say we want to provide this service at the facility, who is going to access that service? You need the community to come."</i>	KII-03
Leaving no one behind: low literacy is a recurring access constraint	<i>"In our district, there is a low literacy level. It is very easy if women have been to school and are able to understand. So, slowly women understand the importance of screening through community awareness. And we have been doing mass screening campaigns. We go right into the community and offer the services there."</i>	KII-05
Leaving no one behind: outreach reaches the poorest 'who just wake up to look for food'	<i>"The most left out are those who do not have much information about the importance of taking care of their health. These are the people in the very remote villages, the women who just wake up to look for food"</i>	KII-11

Finding	Supporting quotation	Source
	<i>and to survive. ... The extremely poor people are the most vulnerable."</i>	
Multi-disease platform: anticipated complaints subsided in practice	<i>"It's human nature to complain that there is extra work when something is being added. So some of them at some point would complain ... 'this is going to be more work.' But it's something which we had anticipated. ... So when they go to the ground, you find that no, it's not as they thought in terms of the addition of work."</i>	KII-01
Multi-disease platform: TB samples retain priority over HPV	<i>"Normally that was the message we got: we should prioritise sputum samples over any other sample because the machines belong to the TB programme. ... With HPV, I think there is so much workload out there. ... We have a lot of people in [our district], and there are just too many positive cases that we get when we test. So, if everyone was a target, that eight-module machine is nothing to us."</i>	KII-08
CBSS evidence translation into policy is well advanced	<i>"In terms of policy and adoption ... this has been of so much interest to them for many reasons. ... [That] decentralisation of access to almost the lowest level has been great. ... As we are renewing the implementation strategy or the strategic plan for cervical cancer control, the community aspect is being considered into this document and we are double sure that it's going to be part of it. ... Community self-sampling also is being added into the SOPs."</i>	KII-01
LEEP: mentorship backlog despite available resources	<i>"After training, [clinical officers] are supposed to be mentored. They have to do at least five clients. So, we have had the challenges and we have a backlog of clinicians who have not yet been mentored, despite sometimes that resources are available. ... By the time the mentors were available, those clients were two. ... By the time the specialist is available, those cases have reduced to two."</i>	KII-02
LEEP: still not in every	<i>"Out of the 29 districts, it was 15 districts which were implementing the LEEP treatment. ... But still more, we</i>	KII-01

Finding	Supporting quotation	Source
district despite training	<i>have not reached all the 29 even to date. And of course, there are some who ... have been trained, but they are yet to be mentored so that they can be certified."</i>	
AVE: commercialisation underway after developer organisation closed	<i>"We are at a point where actually with UNITAID funding as well, we are commercialising AVE. ... [The implementing partner] is working together with UNITAID to identify, be it an organisation or a company, [that] should pick up AVE work. Number one, whether it means retraining the algorithm, making it stronger ... but also should think around how do we commercialise and scale this technology at scale."</i>	KII-01
AVE: not yet a strategic priority but signalled in the next plan	<i>"It may not be prioritised as a priority, because it's still not clear in terms of what is out there on offer. But one thing I know for sure is that there's going to be a mention of welcoming AI tools in cervical cancer screening."</i>	KII-01
Laboratory systems: infrastructure neglect undermines testing	<i>"Normally in Malawi, we do not really focus on the infrastructure or the equipment. We just focus on the work being done without looking at what is going to affect the work itself. So, we are comfortable using the little resources we have. It is high time we improve. ... If the machine is down because the area is too hot, we are going to stop testing."</i>	KII-08
Laboratory systems: no external quality assurance for HPV	<i>"On HPV, we have not had any external samples done with regard to quality control and assurance. We have not had a special program for that. For EID, TB, and viral load, we get samples from CHSU, from an established program to monitor our performance, but we have not seen that for HPV yet."</i>	KII-08
Laboratory systems: LIMS deployed too late and unstable	<i>"LIMS itself, the electronic system, came in very late. We started receiving samples in April 2024, but we started using LIMS in October 2024, after we had already done most of the studies. So, because the system had just come in, it had a lot of problems, and</i>	KII-08

Finding	Supporting quotation	Source
	<i>the samples that we registered from October to December, we never received the results for most of them."</i>	
Workforce sustainability: incentives can demotivate when distributed unevenly	<i>"Incentives in a government setting bring a lot of challenges. Some people are motivated, some are demotivated by the same incentive, according to how you handle the study at the departmental level. ... At the lab, those who were involved in the study received incentives. ... Today I am at the clinic and I collect samples, I go to the lab and find that the person who was part of the study is not available, the samples might sit there."</i>	KII-10
Workforce sustainability: a programme delivered 'as a study' contributes to discontinuity	<i>"If the delivery service came in the form of a study, that was where the problem started. It was a study, we were just trying the method we were implementing as a pilot site. Studying is not forever. ... Had it been that after the study, they evaluated it, knew the weaknesses, and went back to the ministry and presented the study, then from now they could bring these services down to the facilities."</i>	KII-10
Workforce sustainability: provider attrition without replacement	<i>"Most of the providers have retired. Some of them have transferred out. Some of them are at school. We have so many new staff without training. So, if it is possible to bring back the HPV screening method, I think the programme might be at least safer."</i>	KII-06
Reliance on a single trained laboratory officer threatens sustainability	<i>"...there was only one person who was trained. ... the rest of the guys ... were not very oriented on processes ... we still experienced some knowledge gaps. ... one person is not sustainable ... if it involves a number of persons ... if one is not there, the other people will be able to sustain it."</i>	KII-16
No external quality assurance for HPV, need for pre-programme needs	<i>"...throughout the study ... we didn't have any external quality assurance done on samples ... if the activity involves testing of samples, at least there should be external quality control samples. ... whenever we want to start a programme, we should make assessments ..."</i>	KII-16

Finding	Supporting quotation	Source
assessment	<i>the issue of using one GeneXpert for all the samples ... had the assessment been done, they could have added one more machine."</i>	
Single four-module platform forced sample competition and overnight batching	<i>"...the main challenge was ... the capacity of the GeneXpert ... we are using one GeneXpert ... samples are competing for the same machine. ... we were running the HPV samples in the morning ... and then we do other samples later ... we were keeping them and we could run them in the night. ... EID samples ... and TB samples ... these two services were a bit affected."</i>	KII-16
Higher module capacity and room-temperature stability eased throughput	<i>"...we are using a machine which accommodates 16 samples at one go ... they are all functional. ... from 8 to 12 o'clock we are testing HPV samples ... the rest, we are starting from 1 o'clock ... HPV samples are stored at room temperature ... they can stay at room temperature for six weeks."</i>	KII-17
Absence of external quality assurance linked to incomplete government adoption	<i>"...for HPV DNA, we have no external quality assurance. But for other samples like TB and EID, we all have ... the government has not fully taken on board HPV DNA testing ... that is why there is no external quality assurance. ... as far as HPV DNA testing, there was not much supervision done."</i>	KII-17
Histopathology results were not captured in routine registers	<i>"...at that time, we had nowhere where we could document the results of the biopsies ... we are not going back in the registers to write the results because we had nowhere to write the results ... only [the implementing partner] had access to the results. For us, we had nowhere where we could keep those results ... so we were missing the data."</i>	KII-15
Single regional histopathology laboratory delays treatment	<i>"...here in [the southern region], we only depend on [the regional histopathology laboratory] for the processing of the biopsies. ... you have to wait for two weeks for the results to be out. So as you're waiting, this woman is also waiting for treatment."</i>	KII-15

Finding	Supporting quotation	Source
Biopsy costs shifted between partners, women paid in their absence	<i>"...women were not paying for the service. It was the implementing partner ... paying for biopsies. ... now ... [another partner] is paying for the biopsies ... but before that ... women were paying for the biopsies."</i>	KII-15
Single-provider fragility argues for training all nurses, as in family planning	<i>"...just like the way we do with family planning ... every nurse is trained ... but when we talk of cervical cancer only one nurse is available ... if this nurse is not available ... no one is providing the service ... they could train nurses like the way they do with other programmes."</i>	KII-15

C.5 Evidence from the focus group discussion with self-sampling beneficiaries

This section presents illustrative quotations from the focus group discussion held with ten women who had undergone community-based self-sampling. Quotations are reproduced verbatim except for the redaction of identifying details, which appear in square brackets, participants are identified by anonymised codes (P1–P10) within the single discussion (FGD-01).

Table 25: Evidence matrix, beneficiary focus group discussion

Finding	Supporting quotation	Source
Privacy and avoidance of bodily exposure drove uptake	<i>"...each one of us tested on her own without someone seeing your nakedness. ... this approach was very good due to the fact that you could not move a long distance to access the services."</i>	FGD-01 (P1)
Self-sampling removed prohibitive travel distances	<i>"...most of us stay very far away from the hospital, so with this approach we are not travelling long distances ... this method offers privacy ... because some people do not test ... for fear that other people would see their nakedness."</i>	FGD-01 (P6)
Beneficiaries perceived self-sampling as widening age eligibility	<i>"...there was a limit ... only those who were 30 years and above were eligible ... but with this device people from 18 years can self-sample and test ... I was happy to use the self-sampling device."</i>	FGD-01 (P5)
Multi-day result turnaround accepted as	<i>"...although this method takes time, it is a very good approach because it reduced the distance that we</i>	FGD-01 (P6)

Finding	Supporting quotation	Source
a trade-off for access	<i>travelled ... while the provider-delivered testing is very painful. Most women were afraid to get screened after hearing that it hurts."</i>	
Invalid specimens required repeat collection	<i>"...sometimes ... they could tell that you didn't collect the sample correctly ... when you didn't bathe before collecting the sample, the sample is mixed with some impurities which led to invalid test results, and they could tell us to recollect the sample."</i>	FGD-01 (P6)
Pervasive rumours deterred provider-delivered screening	<i>"...people said that I would not be able to give birth again, that I will lose sex flavour ... some people say that the vinegar ... is associated with satanism ... I have not experienced any problem ... initiatives should be made to make people aware about the benefits of self-sampling."</i>	FGD-01 (P5)
Fear of male examiners and assault deterred clinic-based testing	<i>"...when it is a male doctor conducting the test, they just play with your private parts ... sometimes they can even rape you. ... this approach is very useful because no one can rape you ..."</i>	FGD-01 (P2)
Removal of the provider shifted husbands' consent	<i>"...when we told them that we want to go and test ... at the hospital, they were not allowing us because they didn't want the doctors to see our nakedness, and when they heard about self-sampling, they were happy."</i>	FGD-01 (P1)
Community sensitisation reframing men as 'carriers' enabled consent	<i>"...chiefs from our community called for a meeting and informed people that men are only carriers of the disease ... when my husband heard that he is just a carrier of the disease, he accepted me to self-sample."</i>	FGD-01 (P9)
Beneficiaries correctly distinguished HPV positivity from cancer	<i>"...when you test positive for HPV, it does not mean that you have cervical cancer. When you have the virus, you are treated, but when you are diagnosed with cervical cancer, if it is not in its advanced stage, you are treated, but when it is an advanced stage, there is no cure."</i>	FGD-01 (P6)

Finding	Supporting quotation	Source
Women living with HIV and older women felt inadequately covered	<i>"...the group of women that was not accommodated ... are the women living with HIV, there is a need for them to test regularly because their immunity is very low. ... there is a need for elderly women to be included because the current programme does not accommodate women above 49 years of age."</i>	FGD-01 (P9, P6)
Household-level delivery includes women with disabilities	<i>"...we have women with physical disabilities in the communities who cannot manage to go to the hospital very easily, so it has been easy ... to give them a chance to have access to these devices so that they can self-test very easily."</i>	FGD-01 (P5)
Same-day treatment delivered with abstinence counselling	<i>"...I tested positive for cervical cancer causing organism ... they treated us on the same day using vinegar, and we were told that we should not have sex for a month so that the treatment should be effective ... to come to the hospital again after a month."</i>	FGD-01 (P5)
Strong demand to continue and to deliver kits door-to-door via HSAs	<i>"...the device should be found with the HSAs and other volunteers who could deliver them at household level, just the same way we were doing with HIV self-testing kits. ... here in the village we cannot manage to get those devices on our own."</i>	FGD-01 (P10, P9)

ANNEX 12.C.D. REFERENCES

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4 COUNTRY CASE STUDY REPORT FOR THE PHILIPPINES

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ACRONYMS

AI	Artificial Intelligence
AVE	Automated visual evaluation
BGHMC	Baguio General Hospital and Medical Center
CHAI	Clinton Health Access Initiative
CHO	City Health Office
CLAMS	Centralized Laboratory Model for HPV Screening
COP	Country Operational Plan
COVID-19	Coronavirus Disease 2019
C4P	Cost 4 Programming
CxCa	Cervical cancer
DNA	Deoxyribonucleic acid
DoH	Department of Health (Philippines)
DPCB	Disease Prevention and Control Bureau (DOH)
EF	Expertise France
EQ	Evaluation question
FGD	Focus group discussion
FHSIS	Field Health Services Information System
GC7	Grant Cycle 7
GeneXpert	Cepheid molecular diagnostic platform (PCR-based)
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
HTA	Health Technology Assessment
KII	Key informant interview
LGU	Local Government Unit
LMIC	Low- and middle-income country
LNOB	Leave No One Behind
MoA	Memorandum of Agreement
NCCP	National Cancer Control Program
NICCA	National Integrated Cancer Control Act (Republic Act 11215)
PCC	Philippine Cancer Center
PCS	Philippine Cancer Society
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PhilHealth	Philippine Health Insurance Corporation
PSA	Philippine Statistics Authority
QSA	Quick Situational Assessment
RA	Republic Act
RHU	Rural Health Unit
SUCCESS	Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy
TA	Thermal ablation
TB	Tuberculosis

UHC	Universal Health Care
UICC	Union for International Cancer Control
UNICEF	United Nations Children's Fund
VIA	Visual inspection with acetic acid
WHHEN	Women Workers for Health Empowerment Network
WHO	World Health Organization
WLHIV	Women living with HIV
YAKAP	PhilHealth expanded benefit package

EXECUTIVE SUMMARY

Cervical cancer is among the most common cancers in Filipino women. GLOBOCAN 2022 recorded 8,549 new cases and 4,380 deaths in the Philippines, with an age-standardised mortality rate of 8.0 per 100,000 women, well above the WHO elimination threshold of 4 per 100,000. The published five-year survival rate, as reported by Domingo and Dy Echo in 2009 and not substantially revised in the literature since, sits at around 44%. Screening coverage was well below the WHO 70% target, and no national HPV DNA testing capacity existed at the SUCCESS project design stage. HPV testing was clinically accepted but available only in the private sector at a market price reported in internal project scoping to be in the order of USD 80 to USD 160 per test.

Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy (SUCCESS) in the Philippines (December 2019 to April 2026) was Unitaids' investment to demonstrate that secondary prevention could be introduced into a complex, devolved health system using HPV DNA testing as the primary screening test. The design ran on the country's own architecture: HPV testing on the GeneXpert installed base from the national TB programme, self-sampling as the default sampling mode, thermal ablation for precancerous lesions, integration into family planning, reproductive health and HIV services, task-shifting to nurses and midwives, civil-society demand-generation, and implementation research to inform Department of Health algorithm and the Philippine Health Insurance Corporation coverage decisions. A 30-site network spanned 12 regions and all three island groups and Phase 2 (Second Amendment effective 1 December 2023) added community-based self-sampling, with community enrolment beginning the first week of February 2025.

The evaluation found that the design fitted because it was embedded inside Department of Health structures rather than running parallel to them, two design intentions misfired (the Women living with HIV target, 140 women screened against 664, on institutional silos between HIV and cervical cancer programmes, and the Phase 2 community phase, delayed to February 2025 rather than at its originally planned Phase 2 start). On the cascade, the Jhpiego programmatic record shows about 34,416 women HPV-screened, of whom 3,216 were HPV-positive, 1,839 (about 57%) returned for visual assessment, and 1,216 were treated, a larger all-method total of about 40,696 women appears in other programme reporting (an all-method total compiled on a different basis) and is defined differently. The implementation-research cohort found a loss to follow up at the return-for-assessment step rather than at treatment. Market-shaping captured price reduction (Cepheid USD 14.90, Roche USD 7.90, thermal-ablation ceiling cut 45 to 52%) and only partially the test-side. Policy integration is real (NCCES 2025-2028, Health Technology Assessment inclusion, Field Health Services Information System indicator addition, Quezon City Ordinance 3285-2024), financing integration is pending (Philippine Health Insurance Corporation expanded outpatient benefit-package (YAKAP) update, Q4 2026 target). Risk management was strongest on grant-amendment adaptation and weakest on the institutional and data-system end.

Key recommendations are that Unitaids should embed a health-financing perspective in country selection and design in the next portfolio cycle. the Philippine Health Insurance Corporation should re-open the YAKAP outpatient benefit-package design for cervical cancer screening rather than refine it incrementally, with rates calibrated to actual market service costs and provider co-payment caps. The Department of Health's Disease Prevention and Control Bureau should issue an Administrative Order specifying the national screening algorithm by Q3 2026 and instruct the Bureau of Epidemiology to

update Field Health Services Information System treatment-outcome indicators in the same instrument. WHO Philippines and Department of Health Procurement Service should facilitate Department of Health CCD procurement under the RA 12009 (New Government Procurement Act). Department of Health's Disease Prevention and Control Bureau and the HIV, AIDS and STI Prevention and Control Program should issue a joint Administrative Order by Q4 2026 requiring HIV satellite clinics to offer cervical cancer screening as routine annual care for women living with HIV.

Summary of conclusions, evidence and suggestions

Conclusion	Findings / evidence	Suggestions for the future
SUCCESS fitted the Philippines because it ran on the country's own systems rather than building a parallel one: HPV testing on the existing GeneXpert network, self-sampling, and integration into family planning, reproductive health and HIV services.	Self-sampling was the default across the 30 sites, HPV testing used the installed GeneXpert base of more than 500 instruments shared with TB and HIV, integration was confirmed across provider KIIs and FGDs (EQ1.1-1.2).	Unitaid should factor a country's health-financing setup into how it selects and designs projects from the outset, not midway. The model works well only where that financing is already in place (High-level Recommendation 1).
Screening volume met the re-set target, but the weak point in the cascade is the return for assessment after a positive HPV result, not treatment itself. Treatment is reliable once a woman comes back for assessment.	On the implementer figures about 34,416 women were HPV-screened and about 93% of those found eligible were treated, the largest loss is the roughly two in five HPV-positive women who do not return for visual assessment (EQ2.2). These counts come from Jhpiego's programme records. The Expertise France indicator dataset is compiled on a different basis, and the two have not yet been matched line by line, so the totals may still change.	Fund the follow-up function and put facility recall protocols in place, since the cascade holds wherever someone is responsible for bringing women back (Operational Recommendations 2 and 6).
The cascade works when someone actively follows up with women, and breaks when no one does. This is the clearest operational lesson from the Philippines.	The research cohort completed at about 70% against about 38% programmatically, the difference appearing to rest on active tracing by research staff, the Tanza midwife described the same pattern at site level (EQ2.2-2.3).	Resource patient navigation as a named role rather than an extra task for an already overloaded provider (Operational Recommendations 2 and 6).
Women living with HIV appear to be reached less consistently than the general population, though this cannot be stated firmly until the cascade is disaggregated by population.	Provider and Women living with HIV focus groups point to access and single-visit gaps at HIV satellite clinics, population-disaggregated cascade figures are not yet available and have been requested from Expertise France (EQ2.1). This conclusion is provisional pending that data.	Department of Health's Disease Prevention and Control Bureau and the HIV programme should require HIV satellite clinics to offer cervical screening as routine annual care, with single-visit YAKAP coverage (High-level Recommendation 5).

Conclusion	Findings / evidence	Suggestions for the future
Policy adoption is real, financing adoption is still pending. The architecture is largely in place but the money flow is not yet settled.	The national elimination strategy 2025-2028, the National Operational Plan, Health Technology Assessment inclusion, the Field Health Services Information System indicator addition, a Global Fund allocation and a first domestic financing commitment are all in place, while the PhilHealth screening benefit remains structurally thin (EQ3.1-3.2).	PhilHealth should re-open the YAKAP screening benefit rather than refine it incrementally. Consider outcomes-based payment rather than paying screening alone. WHO Philippines with Department of Health-SCMS should bridge the gap between Unitaids channel closure and routine Department of Health procurement (High-level Recommendations 2 and 3).
Market-shaping worked at the global level and the Philippines benefited from it, the remaining affordability and supply problems are country-side, not global.	HPV test prices fell by about 40% and thermal ablation device ceilings by about 45-52%, thermal ablation was efficient once deployed, accounting for about 93% of treatment and largely delivered same-day. The bottlenecks were fiscal space, the absence of a standardised Department of Health procurement track, and customs-related stock-outs (EQ5).	Establish a domestic buffer stock and a standardised procurement track for HPV consumables outside the Unitaids channel (Operational Recommendations 3 and 8).
The project lost close to two years to factors largely outside its control, then moved efficiently once it started. The honest framing is delay management rather than delay avoidance.	The grant was signed in December 2019 but the Memorandum of Agreement was executed only in April 2021, with COVID-19, a year-long ethics review and a 2023 DoH leadership change compounding the slippage (EQ4.1-4.2).	Start sustainability and procurement-transition planning earlier in the cycle, since the financing problem cannot be solved in a project's final year (cross-cutting, High-level Recommendations 1 and 2).
SUCCESS made a real and specific contribution, but the Philippine sustainability outcomes also reflect a pre-existing financing architecture, so contribution claims should be made with that convergence in mind.	SUCCESS contributed the 30-site network, the implementation-research evidence base including the three-algorithm comparison unique to the Philippines, and the C4P costing that fed the Department of Health budget request, RA 11215, RA 11223, the GeneXpert base, the Cancer Warriors Foundation and the Roche-supported Centralized Laboratory Model for HPV Screening were already in motion or	Frame any contribution claim as programme inputs converging with an existing architecture rather than as sole causation (analytical caution for the main report).

Conclusion	Findings / evidence	Suggestions for the future
	driven by other actors (Attribution section, EQ3).	

4.1 INTRODUCTION

4.1.1 BACKGROUND TO THE EVALUATION

This country case study forms part of the independent evaluation of Unitaïd’s portfolio of investments to accelerate the elimination of cervical cancer (CxCa) through secondary prevention over the period 2019 to 2025. The Philippines is one of four early-adopter countries in which Unitaïd funded the Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy (SUCCESS) project, alongside Burkina Faso, Côte d’Ivoire and Guatemala. Using a realist context-mechanism-outcome framing, the case study tests four evaluation questions on responsiveness to country needs and contexts, achievement of intended outcomes, integration of services and tools into national strategies, and implementation efficiency, and six cross-portfolio hypotheses on service delivery, the continuum of care, equity, programming at scale, sustainable financing and South-South learning.

4.1.2 CERVICAL CANCER PROGRAMMING IN THE PHILIPPINES

In 2022, GLOBOCAN estimated 8,549 new cases of CxCa and 4,380 deaths among Filipino women, making CxCa the third most commonly diagnosed cancer in women after breast and colorectum, and the sixth most common cancer in the population overall.^{300 301} The age-standardised mortality rate, at 8.0 per 100,000 women in 2022, is the fourth highest in South-East Asia and remains well above the threshold of fewer than 4 per 100,000³⁰² against which World Health Organization (WHO) has framed CxCa elimination as a public health problem.³⁰³ The absolute burden has not fallen. In 2005, Domingo and colleagues recorded approximately 7,277 new cases and 3,807 deaths,³⁰⁴ in 2022 the Philippines was losing roughly 15% more women to CxCa each year than it was in the previous seventeen years, even as age-standardised incidence has declined modestly over the same period. Around three-quarters of women are still diagnosed at advanced stage, and the published five-year survival rate has stayed at around 44%.³⁰⁵ Where this case study used headline burden figures, it used GLOBOCAN 2022, Department of Health (DoH) Field Health Services Information System (FHSIS) and Philippine Statistics Authority (PSA) cause-of-death tabulations measure different things, with different coverage and registration limits, and any material divergences are noted in the relevant findings.

³⁰⁰ Ferlay J, Ervik M, Lam F, Laversanne M, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F. Global Cancer Observatory: Cancer Today. Lyon: International Agency for Research on Cancer, 2024. Philippines fact sheet, GLOBOCAN 2022 (v1.1, released 8 February 2024).

³⁰¹ The headline figures in this paragraph are GLOBOCAN model-based estimates anchored to the Manila and Rizal subnational cancer registries, DoH FHSIS captures public-sector screening counts (not cause-specific deaths), and Philippine Statistics Authority registered cause-of-death tabulations historically under-count cancer mortality, particularly in non-hospital and rural deaths. Where domestic counts and GLOBOCAN estimates diverge in this case study they are presented together in the relevant findings.

³⁰² The 4 per 100,000 incidence threshold and the 90–70–90 targets are set out in the Global Strategy.

³⁰³ World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: WHO, 2020. ISBN 978-92-4-001410-7.

³⁰⁴ Domingo EJ, Dy Echo AV. Epidemiology, prevention and treatment of cervical cancer in the Philippines. *Journal of Gynecologic Oncology*. 2009;20(1):11–16. doi:10.3802/jgo.2009.20.1.11. The 75% late-stage diagnosis figure and the ~44% five-year survival rate cited in the text are reported in this paper and have been repeated, without substantive revision, in subsequent Philippine literature.

³⁰⁵ Ibid. The 75% late-stage diagnosis figure and the ~44% five-year survival rate cited in the text are reported in this paper and have been repeated, without substantive revision, in subsequent Philippine literature.

Before SUCCESS, public-sector secondary prevention in the Philippines relied on visual inspection with acetic acid (VIA) and cervical cytology, with screening coverage well below the WHO 70% target and no national Human papillomavirus (HPV) DNA capacity. Where HPV DNA testing was available, it sat in the private sector at approximately USD 80 to USD 160 per test, which placed it beyond the reach of the great majority of Filipino women.³⁰⁶ The public laboratory system did, however, already operate more than 500 GeneXpert instruments for tuberculosis and HIV diagnostics, a molecular testing footprint that the SUCCESS design would later use as the platform for HPV testing.³⁰⁷

Two domestic statutes signed in February 2019 created the policy headroom for the SUCCESS investment. Republic Act 11215, the National Integrated Cancer Control Act, signed 14 February 2019, established the National Integrated Cancer Control Program, created the Philippine Cancer Center, and directed PhilHealth to expand benefit packages across the cancer continuum, from screening and detection through to survivorship and palliative care.³⁰⁸ Republic Act 11223, the Universal Health Care Act, signed 20 February 2019, automatically enrolled all Filipinos in the National Health Insurance Program and institutionalised Health Technology Assessment as the priority-setting basis for benefits inclusion.³⁰⁹ Both statutes were broadly enabling rather than directly operational for CxCa. At project start there was no Philippine Health Insurance Corporation (PhilHealth) benefit package for HPV DNA testing, no nationally adopted DoH screen-and-treat clinical algorithm in routine use across local government units (LGU), and no FHSIS module that captured CxCa screening outcomes. Translating these acts into routine CxCa service delivery was, in practice, part of what the SUCCESS investment set out to provoke.

Section 17 of the Local Government Code of 1991 (Republic Act 7160) devolved most health service delivery to LGU. Provincial governments operate provincial and district hospitals, municipal governments operate Rural Health Units (RHU) and Barangay Health Stations, cities operate City Health Offices (CHO). The DoH retains regulatory authority, runs national programmes, and operates a residual set of retained tertiary hospitals. The practical consequence for CxCa programming is that any national algorithm or service expansion requires negotiation with each LGU, and the absence of a national screening registry is in part a structural expression of this fragmentation rather than a simple gap in capacity.

4.1.3 UNITAID INVESTMENTS IN THE COUNTRY

SUCCESS is a Unitaid investment to accelerate CxCa elimination through secondary prevention in four early-adopter low- and middle-income countries: Burkina Faso, Côte d'Ivoire, Guatemala and the Philippines. The grantee is Expertise France (EF), Jhpiego is the country implementer for the Philippines, the Union for International Cancer Control (UICC) coordinates civil society engagement and advocacy. The original grant ceiling was approximately USD 24.3 million over a three-year term ending in November 2022. A no-cost extension was followed by a cost-extension that added a community-based self-sampling phase, co-financed by EF and L'Initiative, the ceiling rose to

³⁰⁶ SUCCESS project knowledge, internal. The USD 80–USD 160 per-test private-sector HPV DNA price band is an internal estimate developed by the project from pre-implementation market scoping in Metro Manila, it is not drawn from a published source.

³⁰⁷ EF. SUCCESS Country Operational Plan: Philippines. February 2021. Internal project document. The “more than 500 GeneXpert instruments” figure draws on the DoH National Tuberculosis Programme installed base prior to SUCCESS, an externally citable DoH-NTP record would strengthen this statement and is being sought.

³⁰⁸ Republic Act No. 11215, “An Act Institutionalizing a National Integrated Cancer Control Program and Appropriating Funds Therefor” (National Integrated Cancer Control Act). Official Gazette of the Republic of the Philippines, 14 February 2019.

³⁰⁹ Republic Act No. 11223, “An Act Instituting Universal Health Care for All Filipinos, Prescribing Reforms in the Health Care System, and Appropriating Funds Therefor” (Universal Health Care Act). Official Gazette of the Republic of the Philippines, 20 February 2019.

approximately USD 29.6 million and the project close moved to April 2026. The Philippines country budget across the life of the grant is approximately USD 3.4 million, of which around 82% had been spent at the 2024 annual report.³¹⁰

In the Philippines, SUCCESS introduced provider-collected (10%) and self-collected HPV DNA testing (90%) on WHO-prequalified platforms, principally GeneXpert, and introduced thermal ablation for precancer treatment, embedding both within existing family planning, reproductive health and Human immunodeficiency virus (HIV) services. Implementation began with a Quick Situational Assessment (QSA) of 47 candidate facilities, from which 30 sites were selected across Luzon, the Visayas and Mindanao. The Memorandum of Agreement (MoA) between the DoH and Jhpiego was executed in April 2021, later than the original timeline because COVID-19 had pushed the project introduction to the DoH from March to July 2020 and multi-level DoH review added further months.³¹¹ HPV screening began at the first three Philippine sites in November 2021.

³¹⁰ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³¹¹ Ibid.

4.2 OBJECTIVES, & METHODS OF THE COUNTRY CASE STUDY

4.2.1 OBJECTIVES, HYPOTHESES AND LEARNING THEMES

The two specific objectives of the global evaluation are to³¹²:

1. **Assess the catalytic impact** of Unitaid-supported programmes to accelerate CxCa elimination through secondary prevention in the 2019–2025 period.
2. **Synthesise actionable insights** to shape impactful, scalable, and sustainable investments to accelerate progress towards elimination of CxCa.

The case study seeks to understand the extent to which **interventions have achieved its intended outcomes** in the Philippines. Secondly, the evaluation case study covers **learning at country level**. This covers market shaping, including cost drivers of interventions, financing approaches, and market dynamics. But also factors that drive scale up of CxCa services, including linking of screening to treatment, varying programme maturity levels across countries, commodity distribution and utilization, gaps in real-world data, and engagement with women and communities affected by cancer.

Table 1 highlights the evaluation questions and related learning themes while Table 2 provides an overview of six hypotheses tested by the case study.

Table 26: Evaluation questions and learning themes

Key evaluation questions	Specific evaluation questions	Links with Learning themes
1. Is the CxCa prevention portfolio responsive to needs and contexts?	EQ1.1 Did the CxCa programmes respond to country needs and contextual realities? Were there mismatches (if any) between the design assumptions and country-level realities?	
	EQ1.2. How did Unitaid's CxCa interventions interact with those of other partners and broader systems? ³¹³	
	EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in CxCa screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?	Leave No One Behind
2. Did the portfolio achieve intended outcomes?	EQ 2.1 To what extent and through what mechanisms did Unitaid's interventions achieve their intended results?	Service delivery models & commodity supply, Continuum of care, Programming at scale
	EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how	Continuum of care

³¹² See Annex 8, TOR

³¹³ Relates to comparative advantage of Unitaid.

Key evaluation questions	Specific evaluation questions	Links with Learning themes
	effective were follow-up mechanisms in ensuring continuity of care?	Also: Service delivery models and commodity supply
	EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-sampling & provider, AI-AVE and TA) and what barriers have they faced in accessing or using them?	Service delivery models and commodity supply Also: Continuum of care, Leave No One Behind
	EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of CxCa screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., thermal ablation) been deployed, and what are key bottlenecks?	Service delivery models and commodity supply Also: Programming at scale
3. Are services and tools adopted and integrated in global and national strategies?	EQ3.1 Are the gains from the Unitaïd supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd's contributions beyond the project period?	Programming at scale, Sustainable financing Also: Service delivery models and commodity supply
	EQ3.2 Which financing approaches—across public, private, and donor sources—are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?	Sustainable financing Also: Programming at scale, Service delivery models and commodity supply
	EQ3.3 Were best practices from early-adopter countries applied to accelerate CxCa programming in other countries?	South-South learning Also: Service delivery models and commodity supply, Continuum of care, Programming at scale, Leave No One Behind
4. Is the portfolio implemented efficiently?	EQ4.1 How timely, cost-efficient, and cost-effective was implementation (considering both allocative efficiency and technical efficiency) and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts? Obs. Full value for money analysis was not conducted.	Service delivery models and commodity supply
	EQ 4.2. Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments? ³¹⁴	South-South learning

³¹⁴ Focus on the portfolio-wide learning. Intervention or country-level learning is addressed throughout the EQs

Key evaluation questions	Specific evaluation questions	Links with Learning themes
	EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?	

Table 27: Summary of evaluation hypotheses and linkages to EQs and learning themes

Hypothesis title	Hypothesis in brief	Key EQs	Learning themes
H1: Community delivery & self-sampling	Proof of feasibility of community HPV self-sampling triggers national adoption as a standard service model	EQ2.1, 2.3, 1.3	1, 3
H2: Integrated service delivery & same-day treat	Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	EQ2.1, 2.2, 2.3	1, 2
H3: Technology introduction & HW capability	AI-AVE and HPV DNA testing increase HW diagnostic confidence, improving continuity of care	EQ2.1, 2.3	1
H4: Proof of concept & national adoption	Proof of concept from 'champion countries' triggers national government buy-in, leading to policy and budget inclusion	EQ2.1, 3.1, 3.3	4
H5: Market shaping & price reduction	Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	EQ2.4, 3.1, 3.2	1, 5
H6: South-South learning & diffusion	Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	EQ3.3, 4.2	6

4.2.2 METHODS AND LIMITATIONS

Data collection methods

The Philippines case study draws on four evidence strands: a structured document review, key informant interviews, focus group discussions, and direct site observation during field visits.

Document review covered approximately forty documents across three categories. The first was the peer-reviewed published literature relevant to the SUCCESS portfolio and to CxCa secondary prevention in the Philippines, comprising the WHO normative documents framing the global elimination effort, the SUCCESS implementation research study protocol,³¹⁵ the Joseph et al. 2023 BMJ Open implementation analysis of HPV testing on existing molecular platforms across five sub-Saharan African countries, and Philippine CxCa literature including Domingo 2009 in the Journal of Gynecologic

³¹⁵ Kabue M, et al. Understanding integrated HPV testing and treatment of pre-cancerous cervical lesions in Burkina Faso, Cote d'Ivoire, Guatemala and the Philippines: a study protocol. Reproductive Health. 2023;20(1):167.

Oncology and subsequent country-level reviews.^{316 317} The second was the internal SUCCESS project document set, including the Country Operational Plan (COP) of February 2021, annual narrative reports for 2020 through 2024, the final draft Global SUCCESS Implementation Research Study Report of 30 September 2024, the Project Plan with its January 2022 amendment, the Grant Agreement Face Sheet with the second amendment of 1 December 2023, the 2024 Flash Report and its indicator, finance, risk and incidents datasets, the 2019 to 2023 budget dataset, the Procurement Plan of October 2020, the Unitaid COVID-19 Impact report of July 2021, four 2025 Jhpiego field stories covering the Parañaque City model, the CeCaRTS motorcycle-courier specimen transport model, the komiks communication materials, and the self-care for CxCa prevention story, and the 13 June 2025 Llave and Lu commentary in the Philippine Daily Inquirer. The third was Philippine statutory and policy material, including Republic Act 7160, Republic Act 11215 and Republic Act 11223 retrieved from the Official Gazette, together with GLOBOCAN 2022, the ICO/IARC HPV Information Centre Philippines fact sheet, and the WHO normative guidance on HPV self-sampling (WHO/SRH/23.1, 2023).

Thirteen key informant interviews were conducted, reaching sixteen respondents grouped across nine stakeholder categories (national policy and procurement, national insurance, the WHO Country Office, tertiary hospital CxCa specialists, primary care and LGU facility-based providers, civil society, implementing partner, primary grantee, and private sector pharmacy). National-level Department of Health agencies were represented by the Disease Prevention and Control Bureau (DPCB). PhilHealth contributed two respondents from its benefits-development team in a single joint interview. The WHO Country Office in the Philippines was represented by one respondent. LGU and facility-based providers contributed six respondents across six sites: the Jose R. Reyes Memorial Medical Center, the Baguio General Hospital and Medical Center (BGHMC), San Lazaro Hospital, the Parañaque CHO, the Tanza RHU in Cavite, and the Minglanilla RHU in Cebu. Civil society was represented by the Women Workers for Health Empowerment Network. Implementing partners contributed Jhpiego Philippines and EF. The private sector was represented by two respondents of South Star Drugstore in a single joint interview.

Four focus group discussions were conducted with seventeen participants in total. The discussion with women living with HIV (WLWH) (three participants) drew on People Living With HIV community networks in Valenzuela and Quezon City, and the Association of Positive Women Philippines. The discussion with women users in the Tanza catchment area (four participants) was held at the Tanza RHU, Cavite. The screening-focused discussion with health care providers (five participants) drew respondents from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU, and the San Lazaro Hospital HIV Satellite Clinic. The general health care provider discussion (five participants) drew respondents from the Parañaque CHO, the General Trias RHU in Cavite, the centralised HPV DNA testing hub in Metro Manila, the Quezon City Health Department HIV Satellite Clinic, and the Tagkawayan RHU in Quezon Province. Pseudonyms were used for community participants per the informed consent protocol, real names of WLHIV and women users were withheld.

Sites were selected purposively rather than at random, chosen to represent the main implementation settings (urban and rural health units, tertiary hospitals, and an HIV satellite clinic) across Metro Manila, Cavite, Cebu and the Cordillera Administrative Region. Field visits and direct site observation were conducted at every site at which a Key Informant Interview (KII) or Focus Group Discussion (FGD) took place. Observation was unstructured and focused on patient flow at the HPV testing or treatment

³¹⁶ Joseph J, et al. Human papillomavirus testing using existing nucleic acid testing platforms to screen women for cervical cancer: implementation studies from five sub-Saharan African countries. *BMJ Open*. 2023;13(1):e065074.

³¹⁷ The paper covers Malawi, Nigeria, Senegal, Uganda and Zimbabwe, drawing on platforms parallel to those used by SUCCESS, and is used here for comparative reference only. It is not a SUCCESS Philippines paper and is not treated as Philippine evidence.

point, the physical co-location of CxCa services with family planning and HIV care, supply and equipment visibility (including GeneXpert cartridge stock, thermal ablation (TA) device availability, and self-sampling kit storage), and the documentation routines providers used in practice as compared with the routines described in protocol documents. Observation notes are held as a separate evaluation team dataset.

Data analysis methods

Qualitative analysis followed the framework method as set out by Gale and colleagues,³¹⁸ with the coding matrix structured around the context-mechanism-outcome logic of realist evaluation.³¹⁹ Each KII and FGD transcript was coded line by line, codes were aggregated into themes and mapped to the four evaluation questions and the six cross-portfolio hypotheses. Reporting follows the RAMESES II standards for realist evaluations,³²⁰ in particular the discipline of stating working theories explicitly, describing context-mechanism-outcome configurations rather than outcomes in isolation, and distinguishing what was tested from what was assumed. Triangulation operated across the four evidence strands: a claim from the document review was carried into the analysis only where it was corroborated, qualified, or contradicted by at least one KII or FGD, a claim from interview or FGD data was returned to the document set for cross-check before being treated as a finding.

Quantitative cross-check drew on two reference series. The first was the SUCCESS programmatic indicator set (women screened, women HPV-positive, women treated, treatment within six months, retention through follow-up) as reported in the 2024 Annual Report Flash Report indicator dataset. The second was the descriptive Philippine cascade data reported in the final draft Global SUCCESS Implementation Research Study Report of 30 September 2024.³²¹ Where SUCCESS internal indicator counts diverged from the implementation research cascade figures for the same period, both are presented in the relevant findings rather than reconciled to a single number. The Joseph et al. 2023 BMJ Open paper, which covers Malawi, Nigeria, Senegal, Uganda and Zimbabwe, is used as comparative reference where its operational findings on cascade attrition, return-of-result lag effects, and self-sampling acceptability gradients speak to the Philippine design. It is not treated as direct evidence on Philippine performance.

Table 28: Limitations and mitigation strategies

Limitation	Mitigation
Implementation research in the Philippines started about twelve months later than originally planned because national ethics review took close to a year to complete. Twelve-month post-treatment follow-up data, planned in the	For findings that depend on completed twelve-month follow-up, the case study reports the absence plainly rather than substituting cross-country data as a proxy, programmatic indicators on treatment within six months from

³¹⁸ Gale NK, et al.. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Medical Research Methodology. 2013,13:117.
³¹⁹ Pawson R, Tilley N. Realistic Evaluation. London: Sage Publications, 1997.
³²⁰ Wong G, et al. RAMESES II reporting standards for realist evaluations. BMC Medicine. 2016,14(1):96.
³²¹ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

implementation research study protocol, were therefore not collected for the Philippine cohort.	the 2024 Flash Report are used where they fit. For findings that do not depend on it, no mitigation is needed.
Programmatic coverage figures (women screened, women screened positive) and implementation research cascade figures measure different things and are not directly comparable. The national FHSIS does not capture CxCa treatment outcomes, the project relied on study-specific registers and a project-built monitoring tool to track the screen-and-treat cascade.	Where both data series exist for the same indicator, both are presented in the relevant findings and the difference is described in plain terms. The absence of an FHSIS treatment-outcome module is reported as a finding in its own right rather than as a methodological footnote.
The community-based self-sampling phase was still in preparation at the close of the 2024 reporting period, so its service-delivery results are not yet available for full evaluation. As of this evaluation in mid-2026, consolidated service-delivery data from the community phase had not been shared with the evaluation team, so they are not assessed here.	The case study reports the design and the readiness state of the community-based phase as observed during fieldwork in April 2026, it does not infer effectiveness from preparation activity. Where the community phase is expected to materially change a finding, the limitation is named in that finding.
Recall bias on a six-year programme period. Key informants were asked to recount events, decisions, and design choices reaching back to 2019.	Respondent statements on events older than approximately twenty-four months were triangulated against contemporaneous project documents (annual reports, COP, MoA, technical working group records) before being treated as evidence. Where a respondent's recollection was uncorroborated, this is noted in the relevant finding.
Selection effects from Jhpiego-mediated facility recruitment. Facility-based KIIs and FGDs were recruited through Jhpiego's existing site contacts, which introduces a known bias toward better-functioning sites and toward respondents predisposed favourably to the project.	A hybrid outreach model was used: Jhpiego facilitated facility-based contact recruitment, the evaluation team recruited national-level and technical-agency respondents (DoH-DPCB, PhilHealth, WHO Philippines, EF, WHHEN) directly. The hybrid model is partial mitigation, not full. Where facility-based interview content diverged from documentary evidence or from independently recruited respondents, the disagreement is reported rather than reconciled.
No counterfactual sites. The case study has no comparison-group sites that received either no SUCCESS support or an alternative implementation model.	Mitigation: none feasible. Causal claims in this case study are framed as plausible mechanisms drawing on the document trail and on respondent attribution rather than as estimated effect sizes against a counterfactual.

4.3 FINDINGS AND LESSONS

4.3.1 RESPONSIVENESS OF THE PROGRAMME TO NEEDS AND CONTEXTS (EQ 1)

In a country with no public-sector HPV DNA testing capacity but an installed base of more than 500 GeneXpert instruments running tuberculosis and HIV diagnostics, anchored in two domestic statutes (the National Integrated Cancer Control Act and the Universal Health Care Act) that were enabling but not yet operational for CxCa, the SUCCESS design's decision to put HPV testing on the same molecular platform and to offer self-sampling at point of care triggered rapid clinical uptake. The mechanism, however, depended on a second condition that the design did not name: LGU political and budgetary commitment, which was unevenly present across the 30-site network. Where both conditions held, the cascade ran. Where the second did not, the same clinical model produced thinner results.

On what was assessed before the programme began, the documented picture is uneven. On the supply side, the Quick Situational Assessment (QSA) scored all 30 facilities in October 2020 and a Health Facility Assessment was applied, so laboratory readiness, the Cepheid molecular diagnostic platform (GeneXpert) installed base, decentralisation and basic procurement capacity were looked at in some form. On the demand side, a formal gender analysis or an assessment of which women are most vulnerable to HPV and least likely to return for follow-up is less clearly documented in the materials reviewed. That gap matters, because the issues that later proved decisive, the loss of HPV-positive women at the return-for-assessment step and the weak reach into women living with HIV, are precisely the demand-side and equity questions a fuller baseline would have surfaced earlier.

SUCCESS's core technical design fit the Philippine setting closely, but its single-system monitoring assumptions ran into the limits of a devolved health system. Running HPV DNA testing on the existing GeneXpert platform was the central design choice, and KIIs from across the system confirmed that the platform decision is what made early scale feasible. The Jhpiego country focal point described the practical consequence: the project did not have to introduce a new piece of laboratory infrastructure to do its work, it had to negotiate access to one that was already in the room.³²² The DoH-DPCB respondent framed the same point in policy terms: the GeneXpert installed base, the National Integrated Cancer Control Act and the Universal Health Care Act together meant the project was reinforcing a direction the government had already set rather than asking it to take a new one.³²³ The mismatch surfaced one step later. The Philippines has been a devolved health system since 1991 under Republic Act 7160, which gives each LGU authority over budgets, priorities and facility-level decisions. In practice that meant SUCCESS had to negotiate bilaterally with each LGU and separately with DoH-retained tertiary facilities, and that individual LGUs could choose different screen-and-treat algorithms. The national FHSIS captures women screened and women screened positive but does not capture treatment outcomes, and the DoH chose to wait on an algorithm decision before updating it. The project filled the gap with study-specific registers and a project-built monitoring tool, but the underlying mismatch (a decentralised system without a national screening registry meeting a single project monitoring architecture) is a real design-to-reality gap that the WHO Country Office respondent described as a recurrent feature of large devolved countries.³²⁴

³²² KII, Jhpiego Philippines country focal point, conducted April 2026.

³²³ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

³²⁴ KII, WHO Country Office, Philippines, conducted April 2026.

The national monitoring system was not designed to capture treatment outcomes, a finding about what the system was built to do. The FHSIS gap is the most consequential. The national system captures women screened and women screened positive but does not capture treatment outcomes, and the DoH chose to wait for an algorithm decision before updating the national health management information system. The project filled the gap with study-specific registers and a project-built monitoring tool, but the mismatch between a decentralised system without a national screening registry and a project-specific monitoring system persisted at project close.³²⁵

Self-sampling was the design assumption that held most strongly, and it held for reasons that programme data and FGD evidence describe in nearly identical terms. At the first three Philippine sites, 97% of general-population women and all women living with HIV chose self-sampling, and across the four-country implementation research the Philippines recorded the highest self-sampling preference at 94%.³²⁶ The texture of the FGD evidence explains the figures. A woman screened at the Tanza RHU, Cavite, described the moment of consent in these terms: *“I had never had a pelvic exam. The idea of one always made me uncomfortable. When she said self-sampling was an option, it felt different. Less like a medical procedure and more like something I could handle.”*³²⁷ The WHO Country Office respondent argued that the acceptability question, framed as a cultural barrier in some early design discussions, was on the evidence not really a patient-side question at all: *“The evidence was quite clear. What we had to work harder on was the provider side. Some providers experienced the introduction of self-sampling as a kind of professional displacement.”*³²⁸ That is a meaningful lesson for any future scale-up: training that addresses only the procedure leaves both the patient’s discomfort and the provider’s sense of professional displacement unaddressed, and uptake suffers a quieter, harder-to-detect drop.

LGU commitment, not training or equipment, is the structural variable that best explains the difference between strong-performing and weak-performing sites. The DoH-DPCB respondent was unambiguous on this point: *“LGU commitment is real, but the operating context determines outcomes more than the training and the equipment. The training is necessary but not sufficient.”*³²⁹ Quezon City sits at one end of the gradient. The Quezon City Integrated Cancer Control Ordinance passed in August 2024 placed CxCa screening on a legally binding local instrument with allocated budget, which the DoH respondent described as the rare instance where the programme is no longer dependent on the goodwill of the current health officer or mayor. Parañaque City sits in the same band as the CHO achieved same-day triage-and-treat delivery, meaning visual assessment and TA in a single visit for a woman already found HPV-positive, as a routine workflow rather than an aspiration, with the nurse coordinator describing the typical encounter as *“a patient comes in HPV-positive, we do the VIA, she has an amenable lesion, we do the TA in the same visit, she goes home that day treated. That is the ideal and it happens regularly here.”*³³⁰ Minglanilla, Cebu, sits at the other end. The Minglanilla RHU shares a single GeneXpert between Tuberculosis (TB) and HPV testing, holds screening days twice a

³²⁵ KII, WHO Country Office, Philippines, conducted April 2026.

³²⁶ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³²⁷ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³²⁸ KII, WHO Country Office, Philippines, conducted April 2026.

³²⁹ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

³³⁰ KII, Nurse Coordinator, Parañaque CHO, conducted April 2026.

month rather than weekly because the BHW network and machine cannot sustain higher frequency, and described the LGU posture in terms that make the contrast with Quezon City explicit: *“Here it is more that the programme fits within existing health service delivery and the LGU allows it, rather than the LGU driving it. The difference matters for sustainability. If they are just allowing it, when the external support ends the programme may just quietly stop.”*³³¹ The WHO Country Office respondent reached the same conclusion from a portfolio vantage point as variation across SUCCESS sites were driven more by local health leadership quality than by infrastructure or geographic access, and the marginal return to investing in LGU leadership, both advocacy to secure local government commitment and budget and developing local health-leadership capacity, is likely higher than equivalent investment in clinical training or equipment.³³²

An urban service model designed in Metro Manila, by which we mean integrated, facility-based HPV screening sometimes offering same-day triage and treatment, did not transfer to remote, island and upland sites, and the project itself recognised this before the close of Phase 1. Two delay points combined to compress the implementation window. National ethics review of the implementation research protocol took close to a year, COVID-19 pushed the DoH project introduction from March to July 2020 and delayed the MoA to April 2021, and a subsequent change of DoH Secretary further slowed the national cancer control processes the project depended on.³³³ COVID-19 also reshaped where screening took place. The Jhpiego country focal point described the consequence directly with primary care access restricted during the pandemic, screening migrated to tertiary hospitals that were operationally open but not structurally incentivised for preventive care, weakening patient follow-up and producing what she called *“a context-mechanism mismatch: the program was operating in settings whose institutional incentives were misaligned with the program’s preventive objectives.”*³³⁴ Outside Metro Manila the urban template ran into different physical and logistical limits. Minglanilla’s GeneXpert is shared with TB and the TB caseload regularly extends HPV turnaround into the following morning, which is workable for women in the immediate catchment but a real cost for those who travel from farther barangays. Specimen transport from peripheral sites back to the processing facility was identified as a fundamental design requirement for the Phase 2 community-based self-sampling model rather than a logistical add-on.³³⁵ The need to reach more women in island and remote communities was what drove the Phase 2 reorientation toward mobile and outreach screening, with specimen transport treated as a design requirement that follows from that choice rather than as its cause, island and remote communities, and a community-based self-sampling model co-financed by EF and L’Initiative.

The two formal grant amendments are the clearest evidence of design responsiveness at portfolio level. The first no-cost extension of twelve months, granted to all Phase 1 outputs in response to pandemic-related delays, identified the Philippines as the project country most affected by COVID-19 and carried the largest activity shift from 2021 into 2022 and 2023.³³⁶ The Second Amendment, effective 1 December 2023, increased the project ceiling to USD 29,572,600, extended Outputs 1-4 to 30 September 2024, and added a Phase 2 (Outputs 5-9) of USD 5,250,000 running through 30 April

³³¹ KII, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

³³² KII, WHO Country Office, Philippines, conducted April 2026.

³³³ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³³⁴ KII, Jhpiego Philippines country focal point, conducted April 2026.

³³⁵ KII, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

³³⁶ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

2026, with the addition recording the exclusion of UICC from the consortium (and the addition of four new regional engagement countries through complementary L'Initiative funding). No direct effect on Philippine country-level implementation is evident from the available record; the change sat at consortium and portfolio level.³³⁷

EQ1.2. How did Unitaids' CxCa interventions interact with those of other partners and broader systems.

In a country where Unitaids' investment is a small share of total external health financing relative to the Global Fund and U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and where the dominant domestic financing actor is PhilHealth, SUCCESS positioned itself as a connector rather than a parallel vertical. The connector role triggered where Jhpiego had country-level operational presence and DoH cancer leadership was active, producing concrete cross-financing wins at the Global Fund, the WHO Country Office and selected LGUs, the same role was undermined where EF–Jhpiego coordination at headquarter level reduced what country teams could see and decide. The result is that SUCCESS's strongest legacy in the Philippines is the platform it left for other investments to build on, while its weakest area is the coordination architecture between primary grantee and implementer.

SUCCESS functioned as the platform on which later programmes built, and the most reliable indicator of platform effect is the pattern of where additional investment landed. The Roche-supported Centralized Laboratory Model for HPV Screening (CLAMS), now run by Jhpiego, builds directly on the screen-and-treat service model and GeneXpert-based laboratory pathway that SUCCESS introduced, rather than new buildings or labs, and is described in project communications and field stories as one continuous body of work that has reached more than 45,000 Filipino women with free HPV screening, treatment and education. That 45,000-women figure is a CLAMS and Roche achievement built on the SUCCESS platform, not a SUCCESS output. The Global Fund integrated an HPV molecular assay into the country's Grant Cycle 7 (GC7) grant with SUCCESS technical assistance and approved procurement of 20,000 HPV DNA test kits for women living with HIV and other priority groups. The WHO Country Office contributed 250 TA devices to reinforce the treatment side, and Phase 2 community-based self-sampling is co-financed by EF and L'Initiative.³³⁸ The Women Workers for Health Empowerment Network (WHHEN) respondent, observing this pattern from a community vantage point rather than a funding one, described it in plainer terms: *"Sites that had SUCCESS infrastructure attracted additional investment. Sites that did not have that foundation did not attract it in the same way."*³³⁹

Local government is the second strand, and this material speaks to the adoption-and-scale question under EQ3 as much as to design. Quezon City, Navotas and Parañaque CHOs took up the screening and data approaches, the Quezon City Integrated Cancer Control Ordinance passed in August 2024 placed the screening model on a legally binding local instrument. The EF respondent positioned the Philippines, alongside Guatemala, as *"the strongest case for domestic financing absorption across the four implementation countries,"*³⁴⁰ while also noting that Philippine sustainability outcomes reflect the convergence of programme inputs with a country-level financing architecture (National Integrated

³³⁷ SUCCESS grant data, internal. Figures drawn from the Unitaids–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³³⁸ SUCCESS grant data, internal. Figures drawn from the Unitaids–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³³⁹ KII, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

³⁴⁰ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

Cancer Control Act (NICCA), Universal Health Care (UHC) and Health Technology Assessment (HTA)) that SUCCESS did not build but did productively use.

Coordination friction between EF and Jhpiego at headquarter level reduced the visibility of programme decisions to the Philippine country team itself, which is at root a design choice, a consortium built around an implementing partner without an established in-country presence, and the cost of that friction is visible in the documentation gaps the evaluation has had to triangulate around. Interview evidence from the grantee side indicated that documentation reaching the evaluation through the implementing partner was likely to be partial, not by intent but as a structural consequence of how budget and procurement decisions were routed at the headquarters, with some information possibly not visible to the Philippine country team.³⁴¹ The same source advised the evaluator to engage the DoH and other national actors directly rather than relying on the implementing-partner network alone, noting that the relationships among the partners were not uniformly close and that some decisions and records sat outside the partner-led documentation chain.³⁴² This points to the same conclusion the civil-society respondent reached at the community end: the platform that SUCCESS built is real, but the partnerships that delivered it were not equally durable.

The PhilHealth pathway, discussed in full under the EQ3 sustainability question, is the longest of the SUCCESS-enabled financing transitions, and its outcome will determine whether the Philippine model survives the end of donor funding. The PhilHealth benefits team respondents described an asymmetric coverage architecture: a CxCa treatment package dating to 2013, with case rates for procedures, medical management and radiotherapy, sits alongside a screening coverage area that remains relatively narrow, facility-based and provider-initiated, anchored in roughly thirty implementation sites generating localised evidence. As the lead respondent put it, “You have an asymmetry, where treatment is more comprehensively covered than screening, even though screening is the earlier and more cost-effective intervention.”³⁴³ A benefit package update is in progress, with ADB-supported costing data collection feeding actuarial estimation, then committee endorsement, then board approval, with a target of Q4 2026, the respondents described the timeline as ambitious rather than secure, in part because consultations with the Philippine Society of Gynecologic Oncology can extend beyond their planned envelope, and in part because the package will only be implementable if reimbursement rates are realistic enough that contracted providers actually engage.³⁴⁴ The WHO Country Office respondent framed the consequence sharply: “A program that runs on Unitaïd funding or DoH discretionary allocations is not institutionalized in any meaningful sense because both of those can be withdrawn.”³⁴⁵ The WHHEN respondent identified a complementary gap that PhilHealth coverage will not by itself close: the PhilHealth expanded benefit package (YAKAP) covers clinical services but does not fund the demand-generation, peer education and follow-up activities through which hard-to-reach women actually access those clinical services, leaving the civic mobilisation infrastructure SUCCESS supported without a durable financing pathway.³⁴⁶

EQ1. 3. How did gender norms, roles and relations influence access to, uptake of, and continuity in

³⁴¹ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

³⁴² KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

³⁴³ KII, Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

³⁴⁴ KII, Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

³⁴⁵ KII, WHO Country Office, Philippines, conducted April 2026.

³⁴⁶ KII, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

CxCa screening and treatment services, including the roles of women and men as healthcare workers, decision-makers, caregivers and partners, and how were gender considerations addressed in programme design (and implementation)?

In a context of gendered procedural fear of the pelvic examination, household economic constraints disproportionately carried by women, and HIV stigma that compounds with CxCa disclosure, the offer of self-sampling triggered a strong demand-side response that produced the highest self-sampling preference of any SUCCESS country and a substantial shift in women's willingness to engage with screening. However, this effect did not extend to women living with HIV (WLHIV), because the main challenge was not reluctance to be screened but the limited integration of CxCa screening into existing HIV care services. As a result, participation remained well below the project's target of enrolling 20% of WLHIV. The gendered design choices in service delivery worked, but not entirely for WLHIV.

Self-sampling removed the gendered barrier of the pelvic examination, and women across sites described this in nearly identical terms. The Tanza FGD provides the clearest description of why the mechanism worked. The participant quoted under EQ1.1 distinguished the pelvic examination from self-sampling as carrying different meanings, not just different procedures: *"Mostly embarrassment. And I think something deeper than that, the feeling that you only do a pelvic exam when something is already wrong. Like it signals illness. The self-sampling felt more neutral. More routine. Like it was something you could do as a precaution, not something that meant you were already sick."*³⁴⁷ A WLHIV participant from Quezon City made the same point about how the prior assumption shaped behaviour: *"I thought it was similar to a pap smear, which I understood to involve a clinical setting, a physician, a speculum. That combination feels like something you would need to plan for, take time off work for, maybe feel a degree of discomfort. Knowing that there is a self-sampling option that takes a few minutes in a private space changes that calculation completely."*³⁴⁸ The Parañaque CHO nurse coordinator characterised this from the provider side: *"The self-sampling concept. It solved the biggest barrier in one design decision. Women who would not come for a pelvic exam will do the self-sampling. Once you have them doing the sampling, you are in the cascade."*³⁴⁹

The gendered cost burden of follow-up, not of screening, is where access broke down. Screening at SUCCESS sites was offered without direct charge, but the FGD evidence is unambiguous that the indirect costs of follow-up across multiple visits accumulated in ways the programme's design did not address. A Tanza participant who eventually completed treatment described a four-month delay that ran through household economic decision-making rather than refusal: *"Even the jeepney fare to come here, thirty or forty pesos, it seems small but when you are calculating everything, it counts. And one of my children was sick for a few weeks. So there was always something. I told myself next week, next week, and four months passed."*³⁵⁰ The same participant later said the cost was concentrated at the most consequential point in the cascade, not the entry point: *"The indirect costs are highest at the treatment stage, not the screening stage. Screening is one visit. Treatment and follow-up are multiple."*

³⁴⁷ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁴⁸ FGD, Women Living with HIV, 16 April 2026. Three participants recruited through the HIV Satellite Clinic at San Lazaro Hospital and PLHIV community networks in Valenzuela and Quezon City, together with the Association of Positive Women Philippines. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁴⁹ KII, Nurse Coordinator, Parañaque CHO, conducted April 2026.

³⁵⁰ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

*The financial burden increases exactly when the health need is most urgent.*³⁵¹ An unscreened participant from the same FGD made the point that the existing facility-centric model has a coverage ceiling it cannot pass because it does not recognize the demands on women which limits flexibility to attend a clinic at specific hours: *“The programme talks to women as if they can freely arrange their time, but a lot of women cannot. Every health visit is a negotiation.”*³⁵² She offered an explicit condition for when she would screen: a Saturday session in her own barangay, with self-sampling, with a person to explain the result. The implication is that community-based, time-flexible delivery is a precondition for reaching those women, often in informal employment, who are not accessing the original facility-based, government-hours.³⁵³

The gender of health workers is a Tanza-specific finding that sits at the intersection of gender, equity and sustainability. Every participant in the Tanza FGD who had moved through any part of the care pathway attributed their continued engagement to the same individual: the RHU midwife who recruits women, demonstrates self-sampling, runs the GeneXpert, calls women on her personal phone, counsels on results, and coordinates treatment scheduling, in addition to her full maternal and child health workload. The participant who took four months to return for treatment was explicit about who closed the gap: *“That personal follow-up is the only reason I completed treatment. The programme itself did not bring me back. She did.”*³⁵⁴ This is a gendered finding twice over: the labour that sustains the care pathway is performed by a woman health worker, on her own phone and her own time, and the women receiving that labour are reachable precisely because of the trust built through it. It is also a sustainability finding. Programme outputs at Tanza are not fully a product of the design but of one health worker’s sustained informal labour, and a routine personnel transition would dismantle the architecture without any of the programme’s formal indicators registering the loss.

Women living with HIV were explicitly targeted in project design, but this equity ambition was not achieved because CxCa screening was not effectively integrated in HIV services. WLHIV represented approximately 3% of Phase 1 enrolment against a design target of approximately 20%, and the implementation research enrolled 62 WLHIV against a target of 440 per country.³⁵⁵ The San Lazaro Hospital HIV Satellite Clinic respondent reached the same conclusion the FGD data supports, and reached it from the supply side: *“The aspiration was right. WLHIV absolutely should have been a priority group. But aspirations without mechanisms are just numbers on paper. Reaching WLHIV requires a completely different approach from a general population screening campaign. You cannot put up a poster at a community center and expect our patients to walk in.”*³⁵⁶ The WLHIV FGD evidence shows the gap between ambition and reality in two directions. On one side, an HIV-positive woman attending a Quezon City HIV clinic described learning of her elevated CxCa risk only through participation in the FGD itself: *“I have been in care for two years and nobody has ever mentioned CxCa*

³⁵¹ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁵² FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁵³ KII, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

³⁵⁴ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁵⁵ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁵⁶ KII, HIV Satellite Clinic, San Lazaro Hospital, Manila, conducted April 2026.

to me. That gap is not small.”³⁵⁷ A Valenzuela-based WLHIV participant who was screened HPV-positive through community based self-sampling described the limited follow up: a single text-message notification, no follow-up call, no transport support, no second contact attempt, and a non-return that the programme never recorded as a failure. In contrast, a third participant completed the full pathway through her existing nurse relationship at San Lazaro. This informal provider initiative was responsible for most of the WLHIV referrals that occurred – but not by programme design, and not easily scalable.³⁵⁸

The limiting factor for low engagement of WLHIV is not demand, but the limited integration of CxCa screening in HIV services. The WHHEN respondent, working from a year of WLHIV outreach experience under Phase 2, reached this conclusion directly: *“The honest conclusion is that the demand side, which is what WHHEN can work on, was not the limiting factor for WLHIV. The supply side integration was the limiting factor. You need the HIV clinic and the cancer service to actually talk to each other, to share patient information with consent, to have a warm referral protocol. In none of the facilities we were working with had that happened in any consistent way.”*³⁵⁹ The San Lazaro respondent agreed, noting that the screen-triage-treat protocol specific to WLHIV (closer post-treatment surveillance than for the general population) was not systematically known to frontline HIV providers at his site during the SUCCESS period, and that programme engagement at HIV-specific facilities was thin compared with the high-performing LGU sites. The integration gap is therefore not a single missing protocol but a stacked set of omissions. The project’s assessment that the original target of 440 women living with HIV per country may have been an overestimate for the Philippines should be read against this finding.³⁶⁰

Dual stigma is a barrier for WLHIV. Women at San Lazaro consistently described fear that presenting for CxCa screening would require disclosure of their HIV status to unfamiliar providers, and that a positive HPV result would be read by family or partners as confirmation of sexual behaviour they had been managing privately, a compounding stigma that general demand-generation strategies do not address.³⁶¹ A Valenzuela WLHIV FGD participant explained: *“If you are seen going in and out of certain clinics, people draw conclusions. I manage my status carefully. Not many people know. Adding another facility visit, for a different service, creates another opportunity for my status to become visible.”*³⁶²

4.3.2 KEY ACHIEVEMENTS AND RESULTS OF THE UNITAID SUPPORTED ACTIVITIES (EQ2)

EQ 2.1 To what extent and through what mechanisms did Unitaids interventions achieve their

³⁵⁷ FGD, Women Living with HIV, 16 April 2026. Three participants recruited through the HIV Satellite Clinic at San Lazaro Hospital and PLHIV community networks in Valenzuela and Quezon City, together with the Association of Positive Women Philippines. Participants identified by pseudonym per the informed consent protocol, real names withheld.

³⁵⁸ KII, HIV Satellite Clinic, San Lazaro Hospital, Manila, conducted April 2026.

³⁵⁹ KII, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

³⁶⁰ SUCCESS grant data, internal. Figures drawn from the Unitaids–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³⁶¹ KII, HIV Satellite Clinic, San Lazaro Hospital, Manila, conducted April 2026.

³⁶² FGD, Women Living with HIV, 16 April 2026. Three participants recruited through the HIV Satellite Clinic at San Lazaro Hospital and PLHIV community networks in Valenzuela and Quezon City, together with the Association of Positive Women Philippines. Participants identified by pseudonym per the informed consent protocol, real names withheld.

intended results?

Against the stated targets, the quantitative picture is mixed and in places not reported. The COP set a target of approximately 50,000 HPV tests, the achieved HPV testing volume of about 31,498 reached roughly two-thirds of that, while the re-set cumulative targets that absorbed the COVID-19 and ethics-review delays were met at about 102%. The WLHIV screening target of 664 women was substantially missed, with about 140 screened. On treatment, the programme reported about 93% of eligible women treated, against an annual treatment-rate target of 80% in the indicator data, though that figure varies by reporting window. Where the programme did not report against a stated output or outcome target, that absence is treated here as a finding rather than filled in. A fuller target-by-target table is held back by the disaggregated indicator data still to be supplied by EF.

Against a compressed timeline (the country started HPV screening only in November 2021 after a nearly year-long national ethics review and a delayed MoA, the SUCCESS Philippines largely delivered on the screening side and partially delivered on the priority equity component. The mechanisms that triggered the screening result were specific and reinforced each other: HPV testing on the existing GeneXpert installed base, self-sampling that lowered the procedural barrier, task-shifting to nurses and midwives, integration into family planning, reproductive health and HIV services, and a project-built client monitoring tool that gave providers and patient navigators line-of-sight on individual women. Where the programme under-delivered (the WLHIV target and the community-based self-sampling phase) the issues were not the same as for the screening successes, and they ran through different supply-side mechanisms.

The screening target was substantially met, but the “102% of cumulative target” figure should be read against a programmatic baseline that had been re-set multiple times to accommodate the lost pandemic and approval years. Over the life of the project, the Jhpiego programmatic cascade records about 34,416 women HPV-screened (31,948 in Phase 1 and 2,468 in Phase 2), and this is the basis for the cascade outcomes that follow. Other screening totals appear in earlier reporting, including about 31,498 HPV tests and about 40,696 women screened by any method, these are defined differently, by period, by tests rather than women, and by the inclusion of VIA or cytology during HPV supply gaps, and they should be reconciled against the EF indicator data before the figures are finalised.³⁶³ Screening was established and sustained at 30 facilities across 12 regions and all three island groups. Against the original COP target of approximately 50,000 HPV tests, the achieved HPV testing volume (about 31,498) fell short by roughly a third, against the re-set annual targets that absorbed the COVID-19 and ethics-review delays, the cumulative figure reaches the approximately 102% often quoted in project communications. Both framings are accurate and both should be on the record. The Jhpiego country focal point identified the practical problem behind this coverage figure: with primary care access restricted during the pandemic, screening migrated to tertiary hospitals that were operationally open but not structurally incentivised for preventive care, weakening downstream follow-up. These tertiary hospitals were equipped to screen, so the gap was one of incentive and follow-up, not capability.³⁶⁴

The mechanism that enabled HPV screening was the decision to use existing diagnostic platforms for

³⁶³ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁶⁴ KII, Jhpiego Philippines country focal point, conducted April 2026.

tuberculosis and HIV rather than building a parallel CxCa laboratory system. The BGHMC provider described this design choice in operational terms that explain why it was decisive: BGHMC already had three GeneXpert platforms running under the national TB programme, the GeneXpert HPV cartridge was added to the same machines, lab staff already knew how to operate them, and the TB-specimen transport system was extended to HPV samples from peripheral health centres.³⁶⁵ The same provider added a point developed more fully in the EQ2.4 affordability discussion and noted here only in passing: *“The durable things are the workforce and the platform. We trained people and those skills do not disappear when the project ends. The GeneXpert machines are already there. That part of the infrastructure is genuinely sustainable. What is fragile is the consumables supply chain.”*³⁶⁶

Task-shifting and health worker training were also mechanisms explaining success. More than 150 providers from Luzon, Visayas and Mindanao attended project orientation, and 115 service providers (81 medical doctors, 12 midwives, 18 nurses, three nursing attendants and one other) completed a three-day virtual clinical skills training on HPV screening, visual inspection, TA and cryotherapy, on the laboratory side, 36 medical technologists and seven pathologists were trained on GeneXpert HPV detection.³⁶⁷ The Parañaque CHO nurse coordinator described the personal trajectory this design intended: *“It was one of the things I was most nervous about initially, doing a treatment procedure independently without a physician present. But the training was good, the return demonstration was thorough, and after doing it a number of times with the mentor nurse supervising, I became comfortable. Now it is a routine part of the workflow.”*³⁶⁸

Integration into existing service points was the third mechanism, and at tertiary level the decisive change was less the integration itself than the shift from clinic-bound Pap smears to self-sampling, which decoupled screening from the clinical visit. The Jose R. Reyes Memorial Medical Center provider explained why integration mattered for reach at a tertiary hospital that had carried roughly 3,000 Pap smears a year without translating that volume into coverage: self-sampling decoupled the screening act from the clinical encounter, group counselling could be followed by individual private testing in tents within the existing facility, and uptake was high among both patients and providers.³⁶⁹ The first cohort at the three earliest sites between 7 November and 22 December 2021 was small (about 380 women) but already supported the design choice for self-sampling: about 97% of the general-population women and all of the WLHIV in that cohort opted for self-sampling.³⁷⁰

The programme was less successful on two objectives, and they misfired for reasons specific to the Philippine context rather than for reasons attributable to the SUCCESS model. The WLHIV target was the first. Over the life of the grant the Philippines screened approximately 140 women living with HIV against a target of 664, and the implementation research enrolled 62 against a target of 440 per country. The project itself recorded that the original target was an overestimate for the Philippines because routine HIV testing is limited in the country and the WLHIV who were enrolled were mostly

³⁶⁵ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

³⁶⁶ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

³⁶⁷ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁶⁸ KII, Nurse Coordinator, Parañaque CHO, conducted April 2026.

³⁶⁹ KII, Jose R. Reyes Memorial Medical Center, conducted April 2026.

³⁷⁰ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

commercial sex workers.³⁷¹ The San Lazaro Hospital HIV Satellite Clinic provider explained that: GeneXpert infrastructure was physically present at his site and technically compatible with HPV cartridges, however because they operated under separate budget lines custodianship for TB and HIV, HPV testing could not be operationalized inside the HIV lab system.³⁷² At the same time, the GeneXpert was not used for WLHIV because the platform was organisationally siloed.

The second area of limited progress is the community-based self-sampling, objective of the cost-extension phase. The Philippine model is the most complex of the three SUCCESS countries, combining community-based outreach with a pharmacy-based model. At the close of the 2024 reporting period the Philippines had not yet begun enrolment, with training and the official study launch scheduled for early 2025.³⁷³ The Minglanilla midwife who attended the Phase 2 orientation in Cebu City in late 2025 named the reason for delay, from the perspective of a peripheral site, which was lack of: a clear and reliable sample transport route from community collection points back to the GeneXpert at the RHU, someone at the RHU or LGU level responsible for tracking samples and results across the whole network, and formal LGU resourcing for consumables, transport and BHW compensation.³⁷⁴

The above challenges don't negate the effectiveness of the HPV screening innovations per se, however they show that supply-side, health system conditions need to be met to make innovations work in practice.

EQ 2.2 To what extent were women screened positive for precancerous and invasive cervical lesions successfully linked to timely and appropriate treatment services, and how effective were follow-up mechanisms in ensuring continuity of care?

Linkage to treatment is where the Philippine cascade is most complicated to read, because the project's programmatic indicator and the independent implementation research measure different things and produce different figures. In a context where the country's on-site laboratory model produced the shortest result turnaround of the four SUCCESS countries, where TA was available same-visit at a substantial subset of facilities, and where the screen-and-treat algorithm was the most common of three algorithms used, the mechanism that distinguishes strong from weak Philippine sites is whether the return-for-triage for HPV positive women was done through same-day delivery or depended on informal follow-up. Where same-day worked, the cascade ran end-to-end. Where it did not, the project's overall linkage rate was the lowest of the four countries, and the reason was not patient unwillingness but the delay between screening and test result.

On how eligibility was defined, the Jhpiego national lead clarified that eligible for treatment means a lesion or transformation zone covering not more than 75% of the squamocolumnar junction, women outside that threshold were either suspected of cancer or referred for management of large lesions. This is why the eligible-for-treatment count sits close to the number returning for assessment: in Phase 1, of 1,631 women who returned for visual assessment, 1,121 were eligible for treatment, and under

³⁷¹ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁷² KII, HIV Satellite Clinic, San Lazaro Hospital, Manila, conducted April 2026.

³⁷³ SUCCESS grant data, internal. Figures drawn from the Unitaidd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

³⁷⁴ KII, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

Algorithm 1 an eligible woman was treated whether or not a discrete lesion was visible, with the whole squamocolumnar junction ablated when none was seen. The decisive loss in the cascade is therefore the return for assessment after a positive HPV result, not the eligibility or treatment step.

During the implementation research, the Philippines produced the best within-90-day cascade completion result of any SUCCESS country, but the worst 'non-time-restricted' linkage result. The reconciliation between those two figures is the heart of the EQ2 finding. The implementation research recorded that approximately 70% of HPV-positive women in the Philippines completed screening-to-treatment within 90 days (against for example 18% in Côte d'Ivoire). On the non-time-restricted measure, 54% of HPV-positive women in the Philippines returned for assessment or treatment, the lowest of the four, while the other three countries were around 80%. Return for visual assessment specifically was 50% for the general population and 55% for WLHIV. Median time from sample collection to assessment or treatment in the Philippines was 31 days, the shortest of the four countries, against up to 185 days in Côte d'Ivoire's centralised laboratory model, the research found across countries that a delay of more than 40 days in receiving results was the single strongest predictor of women not returning, which means the on-site Philippine laboratory model was protective even where the overall window was compressed.³⁷⁵ The reconciliation is mechanistic: the drop-off occurred at the return-for-assessment step, not at the treatment step. Treatment completion once assessed and eligible was 87 to 100% across the four SUCCESS countries, with TA accounting for roughly 93% of treatment offered at SUCCESS sites. On the SUCCESS programmatic indicator (treatment completion among women who reached visual assessment and were found eligible), the Philippines reported approximately 96% over the life of the grant (the Jhpiego programmatic cascade gives a slightly lower figure of about 93% of eligible women treated, both are implementer-reported and should be reconciled against the EF data), that figure is not in tension with the 54% figure but is a different denominator, and both should travel together rather than being cited in isolation.³⁷⁶ Comparative reference from the Clinton Health Access Initiative (CHAI) five-country sub-Saharan African study reinforces the on-site advantage: among 14,564 women with valid results across that portfolio, 95% of results were returned to the clinic and 72% of HPV-positive women were subsequently triaged or linked to treatment in settings that also used near-point-of-care platforms.³⁷⁷ A separate but consistent programmatic finding from the Philippine indicator data is that during 2024, among general-population HPV-positive women, approximately 2,238 of 3,761 received treatment in that reporting period, a treatment rate of roughly 60% against an annual target of 80%, indicating that the picture sharpens or softens depending on the reporting window.³⁷⁸

Same-day screen-and-treat is the mechanism that distinguishes strong from weak Philippine sites, and provider testimony names the threshold conditions for it precisely. The Parañaque nurse

³⁷⁵ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁷⁶ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁷⁷ Joseph J, et al. Human papillomavirus testing using existing nucleic acid testing platforms to screen women for cervical cancer: implementation studies from five sub-Saharan African countries. *BMJ Open*. 2023;13(1): The paper covers Malawi, Nigeria, Senegal, Uganda and Zimbabwe, drawing on platforms parallel to those used by SUCCESS, and is used here for comparative reference only. It is not a SUCCESS Philippines paper and is not treated as Philippine evidence.

³⁷⁸ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

coordinator described the typical encounter under EQ1.1 as HPV-positive on self-sampling, VIA on the same visit, an amenable lesion, TA, home that day. She also named the failure mode: *“It depends on whether the device is available and functional that day, and whether I have enough time in the clinic schedule. When either of those is not in place, same-day treatment becomes a next-visit treatment, and some patients do not come back for that next visit.”*³⁷⁹ The HCP Service Providers (Screening) FGD formalised this finding across sites: same-day was the single most powerful mechanism against loss to follow-up where it was available, but it was inaccessible in lower-resourced sites, and the barrier was not clinical feasibility but equipment availability and trained provider presence on the day. A Parañaque midwife described the workaround built specifically to absorb this constraint: a risk-stratified protocol that combines visual assessment with HPV collection so that, when the visual assessment is clearly indicative, treatment can be delivered on the same day with the HPV result subsequently confirming the decision.³⁸⁰

Availability of screening and treatment equipment is a precondition for good cascade outcomes. The Tanza midwife described a supply chain barrier: *“I was without a functioning device for almost three weeks while I waited for resupply. During that time I had two women who were eligible and ready for treatment. I had to ask them to come back. One came back after resupply. The other I was never able to reach again. She is one of those cases I think about. She was eligible, she came in, and a supply chain failure meant she left without treatment and I lost her.”*³⁸¹ Tagkawayan RHU in Quezon Province shows the impact of equipment not being available at all, or only in a faraway facility. The midwife at that site described woman who self-sampled at a barangay health day, returned positive, and was told the nearest treatment facility is two and a half to three hours each way: *“She asked me how far Lucena was. I told her. She went quiet for a moment. Then she said she would try to arrange it.”*³⁸² The same provider has women on her tracking list who tested positive more than a year ago and have still not accessed treatment.³⁸³

Causal factors for loss-to-follow-up are specific, recognised by providers across sites, and act cumulatively. The Tanza midwife identified four that compound at her site. Her own estimate is that roughly three or four out of ten HPV-positive women are lost, or treated elsewhere without her knowing.³⁸⁴ The Jose R. Reyes Memorial Medical Center provider added a fifth finding the project does not capture in any indicator.

1. Test result turnaround of two to three days requiring a return visit,
2. The absence of any formal recall system so that follow-up depends on a single midwife with fifteen competing programme responsibilities,

³⁷⁹ KII, Parañaque CHO, conducted April 2026.

³⁸⁰ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

³⁸¹ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

³⁸² FGD, Service Providers, 23 April 2026. Five participants drawn from the Parañaque CHO, the General Trias RHU (Cavite), the centralised HPV DNA testing hub in Metro Manila, the Quezon City Health Department HIV Satellite Clinic, and the Tagkawayan RHU (Quezon Province). Participants identified by pseudonym (Ana, Cita, Danny, Grace, Manny) per the informed consent protocol, institutional affiliations recorded.

³⁸³ FGD, Service Providers, 23 April 2026. Five participants drawn from the Parañaque CHO, the General Trias RHU (Cavite), the centralised HPV DNA testing hub in Metro Manila, the Quezon City Health Department HIV Satellite Clinic, and the Tagkawayan RHU (Quezon Province). Participants identified by pseudonym (Ana, Cita, Danny, Grace, Manny) per the informed consent protocol, institutional affiliations recorded.

³⁸⁴ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

3. A paper-based recording system that keeps the losses invisible at the programme level until the next monthly report cycle.³⁸⁵ The mechanism that allowed Parañaque to perform well on linkage was the project-built client monitoring tool, which the coordinator described as a substantive improvement over the paper system, with cleaner records, more organised follow-up tracking and the ability to pull a patient's history quickly at the point of care.³⁸⁶
4. The cost of transport to the referral facility for women already ambivalent about treatment, and
5. Counselling quality. This is the most consequential determinant of patient retention along the pathway. Where counselling is perfunctory or omitted, the psychological burden of a positive result, unmitigated by clear information, becomes a driver of avoidance rather than action.³⁸⁷ The Parañaque midwife described the protocol that works against this: a phone call rather than a text message, the explanation that a positive HPV result does not mean cancer delivered before the woman has time to panic, and a specific return appointment booked in the same call rather than left open.³⁸⁸

The HCP Service Providers (Screening) FGD found that programme continuity in the Philippines depended heavily on informal compensatory behaviours by frontline providers (personal phones for result notification, providers transporting specimens themselves, accompanying patients between facilities), behaviours invisible to the formal monitoring system and structurally vulnerable to staff turnover.³⁸⁹

None of these informal site-level workarounds substitute for a national patient navigation system or a screening registry, which is the larger structural gap.

EQ 2.3 To what extent are women and healthcare workers satisfied with the tools and services introduced (including HPV, self-sampling & provider, artificial intelligence automated visual evaluation (AI-AVE) and TA) and what barriers have they faced in accessing or using them?

In a context where prior cervical screening had relied on provider-administered procedures (Pap smear at tertiary hospitals and intermittent VIA at RHUs), the new tool set (self-sampling, HPV DNA testing on GeneXpert, TA) triggered high satisfaction across both client and provider populations, with the strongest support reserved for self-sampling and TA. The evidence base reveals that satisfaction about each tool depends on the reliability of the system around it, provider satisfaction with TA, for example, was uniformly high but less in facilities with insufficient case volume, and satisfaction with the GeneXpert platform held best in sites where TB demand could be batch-managed. Barriers fell into a small number of categories that apply differently to different sub-populations.

Provider satisfaction was highest for the diagnostic shift and for TA, with the qualification that

³⁸⁵ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

³⁸⁶ KII, Nurse Coordinator, Parañaque CHO, conducted April 2026.

³⁸⁷ KII, Jose R. Reyes Memorial Medical Center, conducted April 2026.

³⁸⁸ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

³⁸⁹ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

confidence in TA proved volume-dependent and that GeneXpert workflow satisfaction depended on whether TB-HPV scheduling could be batch-managed. The BGHMC OB-gyne oncologist captured the diagnostic-shift satisfaction in clinical terms: *“HPV DNA testing addressed the subjectivity problem. The result is a machine reading, positive or negative, not a clinical judgment call that depends on how well-trained the midwife is and how well-lit the clinic is. That matters enormously in a setting like ours.”*³⁹⁰ Regarding HPV testing in on GeneXpert, the Minglanilla and Baguio providers agreed that the platform is satisfactory where TB and HPV demand can be batch-managed (dedicated afternoon runs for HPV after morning TB runs, or vice versa), But on heavy TB days, HPV samples collected in the morning may not be processed until late afternoon or the following morning.³⁹¹

On TA, provider feedback across the wider Unitaid portfolio found high satisfaction with both available device brands and no meaningful difference between them on ease of use, perceived effectiveness or safety, which removes brand selection as a complication for any country planning scale-up.³⁹² The Philippine clinical preference for TA over cryotherapy is also clear in the procurement record: TA accounted for approximately 93% of treatment offered at SUCCESS sites because it is portable, battery-capable, does not depend on a medical-gas supply chain, and can be used by a wider range of health workers.³⁹³ The HCP Service Providers (Screening) FGD added a finding that TA confidence degraded in facilities with insufficient case volumes, and no protocol existed to address it, which means TA deployment requires sufficient volume and/or regular competency re-assessment rather than only initial certification.³⁹⁴ The Tanza midwife confirmed that after training in 2022, several supervised procedures in the first months, an extended period without a trained physician for case review, nor a formal Jhpiego refresher, negatively affected her confidence.³⁹⁵

Women’s satisfaction on self-sampling tools is consistent across all informants, due to privacy, simplicity, avoidance of the pelvic examination, and a sense of agency in the encounter. The Parañaque midwife described the change in the provider-client dynamic that self-sampling produced: *“When I was doing VIA, the woman was on the examination table, I was performing a procedure, and the power in the room was clearly mine. She was passive. With self-sampling, she was doing something herself, she was the agent, and I was explaining and supporting. The energy of the interaction changed. Women asked more questions.”*³⁹⁶ The Tanza FGD evidence confirms the same shift from the user end. The WLHIV FGD evidence shows the same as the Tanza participant who said it felt “less like a medical procedure and more like something I could handle”.³⁹⁷ The HCP Service Providers (Screening) FGD captured the same mechanism at scale: women who had refused or avoided pelvic examination for

³⁹⁰ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

³⁹¹ KII, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

³⁹² Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁹³ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

³⁹⁴ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

³⁹⁵ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

³⁹⁶ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

³⁹⁷ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

years agreed to self-sampling, because of the removal of bodily exposure as a barrier.³⁹⁸ One observation of a Tanza midwife however is that self-sampling explanation requires more time with individual women than the original workflow estimate assumed, especially for first-timers uncertain about the sample quality, the time cost is less a problem in well-staffed urban sites with parallel pre-counselling stations, but at a peripheral RHU it may produce a backlog.³⁹⁹

Specific subgroups of women face specific barriers: cost-of-access is a barrier disproportionately borne by women in informal or low-wage work, stigma barrier sits with the WLHIV, and the language-and-trust barrier is most consequential at peripheral sites with low community-organisation. The cost barrier is the most quantified. Although screening and treatment were free at the point of care, the implementation research exit interviews recorded median costs to women in the Philippines of about 140 pesos for return transport, 140 pesos for food or drink, and 350 pesos for lost wages on the day, equivalent to roughly six US dollars.⁴⁰⁰ The Tanza FGD shows the real life calculation of a jeepney fare balanced against a sick child. When even a small indirect cost becomes a calculation, follow-up across multiple visits multiplies indirect costs precisely when the health need is most urgent.⁴⁰¹ The WHHEN respondent named a barrier specific to women in informal and contractual employment. The direct income loss associated with leaving work during clinic hours, only partially addressed through community-linked delivery.⁴⁰² The stigma barrier sits with WLHIV service model and is dual: the stigma associated with a CxCa diagnosis added to the HIV stigma, producing according to a San Lazaro provider a calculation in the waiting room of an unfamiliar facility that may result in leaving.⁴⁰³ The language-and-trust barrier is most acute where the community-organisation foundation is thin. The WHHEN respondent described how civil society organisation groundwork in years before SUCCESS arrived, resulted in a shift from “why should I trust this” to “okay, tell me more”. In LGUs without civil society engagement there was reasonable caution from communities that had previously seen programmes come, collect data, and disappear, resulting in lower uptake.⁴⁰⁴ Supply interruption can affect community-level credibility and trust, as experienced when the Parañaque kits ran out for some weeks, and women turned away (some of whom had overcome hesitation or arranged time off work to attend), an impact that may last longer than the actual stock-out.⁴⁰⁵

EQ2.4 To what extent have market-shaping efforts improved access, affordability, and availability of CxCa screening and treatment technologies across countries? Specifically, how efficiently have new technologies (e.g., TA) been deployed, and what are key bottlenecks?

Market-shaping in the SUCCESS architecture operated mainly at the global level, through Unitaid and

³⁹⁸ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

³⁹⁹ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

⁴⁰⁰ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

⁴⁰¹ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

⁴⁰² KII, Coordinator, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

⁴⁰³ KII, HIV Satellite Clinic, San Lazaro Hospital, Manila, conducted April 2026.

⁴⁰⁴ KII, Coordinator, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

⁴⁰⁵ KII, Nurse Coordinator, Parañaque CHO, conducted April 2026.

CHAI's negotiations with manufacturers, with country programmes such as the Philippines both contributing demand volume and benefiting from the resulting agreements. The Philippines benefited substantially from lower prices of TA devices, which displaced cryotherapy in the procurement plan and accounted for roughly 93% of treatment offered. The benefit was partial for the HPV DNA tests due to supply chain issues. Although the procurement through UNICEF Supply Division and the DoH Supply Chain Management Service worked as designed, bottlenecks remained resulting in stock outs at clinic level.

Procurement ran through UNICEF Supply Division into the DoH supply chain, but country-side bottlenecks reduced its supply chain reliability. According to the EF respondent, centralising procurement through EF and the United Nations Children's Fund (UNICEF) Supply Division was a deliberate market-shaping mechanism intended to aggregate orders and create price visibility and supplier accountability that individual country procurement could not produce.⁴⁰⁶

The Philippine procurement plan approved by Unitaid in October 2020 totalled approximately USD 912,000, of which approximately USD 810,000 was international procurement through UNICEF Supply Division and approximately USD 102,000 was local procurement. The international component included Cepheid Xpert HPV test kits for 50,000 screening tests plus a 10% buffer, specimen collection brushes, PreservCyt vials, WISAP and Liger thermal coagulator devices and probes, and large loop excision equipment for the tertiary facilities. The DoH Supply Chain Management Office accepted the role of receiving the imported commodities in November 2020 under the foreign donations rules, with the SUCCESS project supporting onward distribution to sites, by the end of 2021, 32 of the 48 locally procured items were available for distribution and four shipments of globally procured commodities had been received into the DoH warehouse.⁴⁰⁷ Over the course of the project, CxKa commodities (including HPV assay kits and TA devices) were formally included in the DoH supply chain management system, and HPV assay kits and TA devices were included in the Health Technology Assessment process, which is the gateway both to DoH-CCD procurement and PhilHealth financial coverage.⁴⁰⁸ A MoH led procurement choice was to shift procurement from GeneXpert HPV cartridges to Roche on the basis of a combination of pricing and DoH preference.⁴⁰⁹

Self-sampling kits are sold in pharmacies in the Phase 2 pharmacy-based self-sampling distribution pilot, which gives a private, non-DoH channel a commercial stake in keeping HPV self-sampling kits available beyond the project window, since pharmacies source the kits from the commercial market rather than from the DoH.⁴¹⁰

Global price negotiations produced a median price reduction of about 40% across HPV tests, but the Cepheid GeneXpert HPV cartridge that the Philippines started with is relatively expensive, a market-shaping fact (the Philippines began on the Cepheid cartridge at USD 14.90 per test against USD 7.90

⁴⁰⁶ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

⁴⁰⁷ SUCCESS Procurement Plan, Philippines, October 2020, Procurement Plan Overview, List of UNICEF consumables and List of LOCAL consumables sheets, SUCCESS Annual Report 2020, narrative, Philippines procurement and importation section. Internal project documents, not externally citable, cross-checked against the procurement summary in Annex B of the project knowledge base.

⁴⁰⁸ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

⁴⁰⁹ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

⁴¹⁰ KII, South Star Drugstore, conducted April 2026.

for Roche, roughly double the cheaper unit cost, which raises the recurrent cost of any HPV-only policy and is part of why the DoH has not yet moved to HPV alone) with impact on sustainability. The 2024 affordability analysis prepared under Unitaid support recorded supplier global access prices of USD 6.24 per test for the Abbott RealTime and Alinity m HR HPV assays (FCA, 33 sub-Saharan African countries), USD 7.90 per test for the Roche cobas HPV assay (CPT, 89 LMICs), USD 9.00 per test for the Hologic Aptima HPV assay all-inclusive (DAP, eight African countries, rising to USD 11.28 across 50 countries), and USD 14.90 per test for the Cepheid GeneXpert HPV (Ex-works, 145 countries, including the Philippines, as part of the GX 16 programme). The same analysis recorded an average HPV test cost of USD 8.81 per test paid by CHAI-supported countries between 2019 and the first half of 2021, and a calculated all-inclusive cost of about USD 9.82 once instrument, service, freight and supply chain elements are factored in.⁴¹¹ According to the BGHMC respondent, during the project period, the Unitaid-funded channel enabled the facility to procure HPV test kits below the commercial price, but “the vulnerability of course is what happens when that channel closes.”⁴¹² The main domestic-policy consequence of this vulnerability is the DoH’s decision to continue authorising VIA and cytology diagnostics rather than moving to HPV testing alone, because HPV tests remain expensive relative to the fiscal space.⁴¹³ The Philippine shift toward Roche cartridges during the project period is consistent with that calculation. Whether domestic HPV test procurement continues post-project will depend on the PhilHealth benefit package reimbursement rates set under the Q4 2026 update and on which platform is most cost-effective.⁴¹⁴

TA deployment in the Philippines is the strongest market-shaping story in the case study, with WISAP and Liger devices procured under the original plan, a roughly 45 to 52% reduction in global prices for TA devices, and the WHO Country Office contribution of 250 additional devices that broadened the deployment beyond the 30 SUCCESS sites. Global access pricing agreements with the two TA device manufacturers reduced device ceiling prices by approximately 45 to 52%, and the shift from cryotherapy to TA cut the per-patient cost of treating precancer by approximately 75%, to roughly USD 4, because TA devices are portable, battery-capable, not dependent on a medical-gas supply chain, and can be used by a wider range of health workers.⁴¹⁵ The project undertook a Quick Situational Assessment before allocating TA devices and probes to facilities scoring well on clinic and laboratory infrastructure, existing CxKa services, logistics, gynaecologic health workforce, and dissemination capability. Of the 30 SUCCESS sites that received TA devices, twenty-nine are public and one private (Evangelista Medical Specialty Hospital) used as the pilot site for the Health Facility Assessment tool. The BGHMC respondent mentioned two TA devices in use, one through Jhpiego’s SUCCESS distribution and one procured through DoH separately, both operational, and no major equipment failures across the project period.⁴¹⁶

Market shaping happened globally, but procurement and supply bottlenecks exist at country level, including cartridge supply continuity, cold-chain integrity, and the absence of a standardised DoH

⁴¹¹ Demke O, et al. Affordability of Screen and Treat Tools for Cervical Cancer (Version 3, 31 July 2024), prepared as part of a programme supported by Unitaid. Available from the WHO. The same supplier price set is summarised in Unitaid’s 2024 technology landscape report Screening and Treatment of Precancerous Lesions for Secondary Prevention of Cervical Cancer.

⁴¹² KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

⁴¹³ KII, , Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

⁴¹⁴ KII, (joint interview), Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

⁴¹⁵ Demke O, et al Affordability of Screen and Treat Tools for Cervical Cancer (Version 3, 31 July 2024), prepared as part of a programme supported by Unitaid. Available from the WHO. The same supplier price set is summarised in Unitaid’s 2024 technology landscape report Screening and Treatment of Precancerous Lesions for Secondary Prevention of Cervical Cancer.

⁴¹⁶ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

procurement track for HPV consumables outside the Unitaïd channel. Market-shaping at the global level has done what it can in the Philippines, the remaining work is institutional and country-side. These are best read as a health-systems-strengthening gap rather than isolated supply incidents, since the domestic procurement, buffer-stock and cold-chain systems that sustainability depends on were never built and, within the project's scope, could not have been. First, in terms of supply continuity, the BGHMC respondent described a six-week mid-2024 stock-out of HPV cartridges traced to a customs clearance delay on an international shipment, with the consequence that women who came for screening were turned away.⁴¹⁷ Similarly, a treatment-device supply interruption at Tanza lasted three weeks, the resupply arrived only after the midwife messaged the Jhpiego programme officer directly.⁴¹⁸ 625 cytology cartridges (valued at about USD 6,187) expired in July 2023 because of delays in PreservCyt shipping, within expected lossages but a marker of supply-chain fragility. Second, The CLAMS hub medical technologist described a cold-chain bottleneck for cervical cancer samples from peripheral areas, that sometimes results in re-collection from the patient, an additional burden on the woman and a delay in her result.⁴¹⁹ The evaluation could not establish how often re-collection occurred; it was reported as a recurring risk at peripheral sites rather than a quantified frequency. Specimens from urban, well-resourced facilities arrived in better condition and with better documentation than specimens from peripheral areas, reflecting differences in transport infrastructure, in the time health workers have to spend on documentation, and in cold-chain consistency along the logistics chain.⁴²⁰ Finally, the Philippines does not yet have a standardised DoH procurement track for HPV consumables outside the Unitaïd channel, and as the DoH-DPCB respondent described that setting up a new commodity in the government procurement system under the Government Procurement Reform Act takes a two-to-three year establishment period at minimum, even with political will and technical capacity.⁴²¹ The project also recorded a small number of defective TA handles and probes that manufacturers agreed to replace.⁴²²

4.3.3 INTEGRATION OF SERVICES AND TOOLS IN NATIONAL STRATEGIES (EQ3)

EQ3.1 Are the gains from the Unitaïd supported work sustainable and scalable? What conditions and mechanisms are likely to support or undermine the sustainability and scalability of Unitaïd's contributions beyond the project period?

The evidence on sustainability is mixed because of where the financing transitions had reached, not because of any failure to act. In a context where the National Integrated Cancer Control Act and the Universal Health Care Act were already in place when SUCCESS arrived, the mechanism that has done

⁴¹⁷ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

⁴¹⁸ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

⁴¹⁹ FGD, Service Providers, 23 April 2026. Five participants drawn from the Parañaque CHO, the General Trias RHU (Cavite), the centralised HPV DNA testing hub in Metro Manila, the Quezon City Health Department HIV Satellite Clinic, and the Tagkawayan RHU (Quezon Province). Participants identified by pseudonym (Ana, Cita, Danny, Grace, Manny) per the informed consent protocol, institutional affiliations recorded.

⁴²⁰ FGD, Service Providers, 23 April 2026. Five participants drawn from the Parañaque CHO, the General Trias RHU (Cavite), the centralised HPV DNA testing hub in Metro Manila, the Quezon City Health Department HIV Satellite Clinic, and the Tagkawayan RHU (Quezon Province). Participants identified by pseudonym (Ana, Cita, Danny, Grace, Manny) per the informed consent protocol, institutional affiliations recorded.

⁴²¹ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

⁴²² Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

most of the sustainability work is institutional embedding through DoH supply chain integration, HTA inclusion and the National Cervical Cancer Elimination Strategy. That mechanism has produced durable structural outcomes. What it has not yet produced is a financing mechanism, and several of the post-grant transition questions (cartridge procurement, TA device maintenance, training-cascade funding) remain open at the time of this case study.

The most durable sustainability outcomes are policy and secondary prevention innovation, the most fragile are consumables and the training cascade. On the policy and innovation side, SUCCESS supported the National Cervical Cancer Elimination Strategy 2025-2028 and a national operational plan for secondary prevention, clinical practice guidelines and treatment algorithms were finalised, HPV assay kits and TA devices were brought into the HTA process that opens the route to PhilHealth coverage, and HPV indicators were added to the FHSIS national list for 2025 reporting onward.⁴²³ Sub-national uptake reinforces the picture as the Quezon City Ordinance 3285-2024 placed CxCa screening on a legally binding local instrument in August 2024, and Navotas and Parañaque CHOs took up the screening and data approaches. The BGHMC provider captured what is sustainable and what is not in operational terms: *“The durable things are the workforce and the platform. We trained people and those skills do not disappear when the project ends. The GeneXpert machines are already there. That part of the infrastructure is genuinely sustainable. What is fragile is the consumables supply chain.”*⁴²⁴ The DoH-DPCB respondent identified the parallel point on training: by 2023 the project had conducted training of trainers so national and regional trainers could take over the support function as part of the transition, but the training cascade is only as durable as the institutional home that funds and runs it, and that home was not formalised by project close.⁴²⁵

Scalability has been partially demonstrated and partially assumed, with the demonstrated component sitting at sub-national level and the assumed component sitting at national procurement and financing. Service scale up is visible in three places. First, the inherent scalability of the underlying technologies (self-sampling, HPV testing on shared platforms, portable TA, task-shifting to nurses and midwives) is not in dispute. Second, services have extended beyond the original 30 SUCCESS sites through the Roche-supported CLAMS centralised laboratory project, which had reached more than 5,000 women in Manila, Quezon City, Muntinlupa and Cebu by the close of the reporting period.⁴²⁶ Finally, local government uptake (the Quezon City ordinance, the Parañaque and Navotas health office adoption) shows the model embedding at LGU level rather than only at facility level, which is better read as a sustainability gain than as geographic scale-up.

Enablers for national scale up are not yet in place, as it depends on financing and data steps, namely the FHSIS treatment-outcome indicators and the screening registry, that were being put in place rather than completed. The PhilHealth benefit package update is targeted for Q4 2026. The national screening registry does not yet exist. Routine government procurement of HPV consumables has a two-to-three-year establishment period, which the DoH-DPCB respondent named directly: *“Setting up a new commodity in the government procurement system takes time, even with political will and technical capacity. If we are talking about domestic government procurement at scale, not just procurement by*

⁴²³ SUCCESS grant data, internal. Figures drawn from the Unitaïd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴²⁴ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

⁴²⁵ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

⁴²⁶ SUCCESS grant data, internal. Figures drawn from the Unitaïd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

*individual LGUs, we are probably looking at a two to three year establishment period at minimum.*⁴²⁷

The Minglanilla midwife's account of LGU posture quoted under EQ1.1 ("the LGU allows it, rather than the LGU driving it") captures this gap directly: where the LGU only allows the programme rather than drives it, scale is fragile.⁴²⁸

A national service delivery protocol was not settled during the project. The Philippines was the only SUCCESS country to use all three screening algorithms during the project period, and the comparative learning was real, but the DoH's decision on which algorithm or combination to adopt nationally was not finalised at project close.⁴²⁹

Key post-grant sustainability questions remain unanswered, and depend on sustained DoH leadership. First, who picks up cartridge procurement when SUCCESS closes on 30 April 2026 is unclear. HPV assay kits are integrated into the DoH Supply Chain Management Service and are in the HTA process, but routine DoH procurement is in the multi-year establishment period, the Global Fund GC7 allocation of 20,000 HPV kits is a defined population programme (WLHIV) rather than a recurrent general budget line, and PhilHealth benefit-package reimbursement that would create budget is also on the Q4 2026 timeline.⁴³⁰ Second, is maintenance of TA devices. Although the current devices are in usable condition (the BGHMC provider reported no major equipment failures across the project period), consumables and battery replacement sit outside the established DoH supply chain challenges illustrate what the impact is for services.⁴³¹ Finally is funding for the health worker training cascade. Although a training of trainers system is in place at national and regional level, the WHO Country Office respondent identified PhilHealth's YAKAP package (the outpatient benefit package that would reimburse cervical screening at primary-care level) as "the single most consequential remaining risk for sustainability." YAKAP reimburses the clinical service itself, but it does not fund the supervision, mentorship and refresher training that keep provider skills current.⁴³² Underlying all three is a political-cycle risk the project itself flagged: the May 2025 national elections, a change of DoH leadership, and the threat of staff attrition as the grant approaches closure.⁴³³

EQ3.2 Which financing approaches—across public, private, and donor sources—are proving most effective in sustaining affordable HPV screening and treatment services over the long term? What are the true cost drivers of screening and treatment?

The Philippine financing mix for CxCa secondary prevention is mixed: PhilHealth on the demand side under Universal Health Care, the DoH Cancer Control Division on the supply and procurement side, LGUs through their devolved health budgets under the Local Government Code, funding frontline delivery, staffing and outreach at city and municipal level, the Global Fund through the GC7 allocation for women living with HIV and high-risk populations, and a first domestic resource commitment for HPV testing announced in late 2025. The point for sustainability is that none of these is yet a recurrent, general-population budget line for HPV screening, which is the gap the YAKAP update would have to close. In a context where treatment coverage long pre-dated screening coverage in the PhilHealth

⁴²⁷ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

⁴²⁸ KII, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

⁴²⁹ SUCCESS grant data, internal. Figures drawn from the Unitaids-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴³⁰ KII, (joint interview), Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

⁴³¹ KII, midwife and cervical cancer focal person, Tanza RHU, Cavite, conducted April 2026.

⁴³² KII, WHO Country Office, Philippines, conducted April 2026.

⁴³³ SUCCESS grant data, internal. Figures drawn from the Unitaids-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

benefit architecture, the financing mechanism most likely to determine sustainable national access is the YAKAP screening benefit package update, with the GC7 allocation operating as a bridge for the highest-risk subgroup and LGU health budgets as the most variable element. The true cost drivers of CxCa screening and treatment are concentrated in cartridges and consumables and in workforce, not in capital equipment.

PhilHealth is the potential financing mechanism, but not yet secured. The PhilHealth benefits team described an asymmetric current coverage system in which a CxCa treatment package dating to 2013 (case rates for procedures, medical management and radiotherapy) exists alongside a narrower screening package that is largely facility-based, provider-initiated, and limited to approximately thirty accredited implementation sites. The benefit package update is in progress, with ADB-support for cost estimation, committee endorsement and board approval, on a Q4 2026 target.⁴³⁴ The PhilHealth lead identified the risk that updated package may or may not translate into actual coverage: *“If the rate is too low, providers either decline to be accredited, or they accept accreditation but do not actively process claims, or they require co-payments from patients that defeat the purpose of the benefit. If the rate is reasonable, providers participate actively and patients have meaningful financial protection.”*⁴³⁵ The political-economy variable underneath that operational risk is the position of the Philippine Society of Gynecologic Oncology on rate-setting, with senior society members tending to resist measures that compress professional fees.⁴³⁶ The WHO Country Office summarised that a programme running on Unitaïd funding or DoH discretionary allocations is not institutionalised because both can be withdrawn, if the decision timeline slips or the PhilHealth rates land too low to mobilise providers.⁴³⁷

The Philippines are, alongside Guatemala, according to the EF respondent the strongest case for domestic financing absorption across the four implementation countries, with budget commitments to HPV testing extending through 2027, but with the explicit caveat that Philippine sustainability outcomes cannot be attributed to SUCCESS in isolation: they reflect the convergence of programme inputs with a country-level financing architecture (NICCA, UHC, HTA) that the programme did not build but did productively use.⁴³⁸

The Global Fund funding worked as a bridge, but is limited to WLHIV screening. Through the seventh grant cycle, the Global Fund approved procurement of 20,000 HPV DNA molecular assay test kits for women living with HIV and other high-risk populations. SUCCESS technical assistance enabled the integration of an HPV molecular assay into the country’s GC7 grant.⁴³⁹ SUCCESS also negotiated an operational partnership with the Philippine Business for Social Progress, a Global Fund principal recipient, to use the existing TB specimen transport mechanism (STRIDER) for HPV samples. However this financial allocation is for a defined population programme rather than for the general screening population, and the WHHEN respondent’s observation under EQ1.3 of limited HIV-screening service integration applies here as well: a procured kit at the laboratory level does not by itself increase access to screening, which is what made the project’s own enrolment of approximately 140 WLHIV against a

⁴³⁴ KII, (joint interview), Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

⁴³⁵ Ibid.

⁴³⁶ Ibid.

⁴³⁷ KII, WHO Country Office, Philippines, conducted April 2026.

⁴³⁸ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

⁴³⁹ SUCCESS grant data, internal. Figures drawn from the Unitaid–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

target of 664 the outcome it was.⁴⁴⁰

True cost drivers for screening and treatment are cartridges and consumables, workforce, and supervision, costing of the elimination strategic plan alone does not produce domestic resources without a clear investment case in the language of value for money. The Cost for Programming (C4P) exercise (the C4P costing that SUCCESS produced as a project output) was validated in July 2024 and used directly to inform the DoH's 2025 budget request for HPV testing, which is a meaningful outcome.⁴⁴¹ The Jhpiego country focal point identified that costing alone does not close the financing gap: *"Costing exercises alone are insufficient, an investment case supports advocacy and funding. It would facilitate parliamentary and local government budget allocations. Without it, reliance on national program budgets limits scale and sustainability."*⁴⁴²

The dominant cost driver below the headline figure is the HPV cartridge (Cepheid GeneXpert HPV global access price USD 14.90 per test through the Unitaïd channel, Roche cobas HPV USD 7.90 per test through Roche's 89-LMIC global access programme), with the unit cost so high relative to fiscal space that the DoH retained VIA and cytology in a national guidelines, rather than moving to HPV testing alone.⁴⁴³ The landed cost of the screening also includes workforce as the second cost driver. Project staff was the single largest cost category across the four-country grant, at roughly USD 10.6 million of the USD 24.3 million Phase 1 budget, reflecting a project built around health system strengthening: training, supply chain set-up, implementation research and direct technical support rather than around capital investment.⁴⁴⁴ Another hidden system cost to enable HPV testing is supervision, and most likely to be under-resourced post-project: the BGHMC provider described project supervision, including mentorship and support for data flow from supervised facilities, as absorbed into existing staff without dedicated budget or visibility as a cost driver.⁴⁴⁵

EQ3.3 Were best practices from early-adopter countries applied to accelerate CxCa programming in other countries?

South-South learning in the SUCCESS architecture operated through regional dialogues, a strategic framework taskforce and informal peer exchange among country teams. The Manila 2023 Regional Dialogue was the Asia-Pacific anchor, and the Philippine civil society lead joined the WHO Western Pacific regional taskforce that developed the strategic framework for CxCa control adopted by the Regional Committee. The mechanism, however, was more about placing the Philippines in a regional conversation than about producing documented technical transfer to neighbouring countries, and the case study's honest read is that the South-South learning component held weakly rather than strongly. Where it produced something concrete, the evidence is in regional positioning rather than country-to-country adoption.

⁴⁴⁰ KII, Coordinator, Women Workers for Health Empowerment Network (WHHEN), conducted 15 April 2026.

⁴⁴¹ SUCCESS grant data, internal. Figures drawn from the Unitaïd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁴² KII, Jhpiego Philippines country focal point, conducted April 2026.

⁴⁴³ Demke O, Maggiore P, Bahuguna P. Affordability of Screen and Treat Tools for Cervical Cancer (Version 3, 31 July 2024), prepared as part of a programme supported by Unitaïd. The same supplier price set is summarised in Unitaïd's 2024 technology landscape report Screening and Treatment of Precancerous Lesions for Secondary Prevention of Cervical Cancer.

⁴⁴⁴ SUCCESS grant data, internal. Figures drawn from the Unitaïd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁴⁵ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

Manila hosted the 2023 Asia-Pacific regional dialogue organised by the project and the WHO regional office, their contribution on south-south learning is hard to quantify. Abidjan in 2022, Rio in 2022 and Manila on 10 to 11 May 2023 convened the regional learning events, the Manila dialogue brought 76 participants from 55 organisations representing 23 countries, with an on-site visit to a project facility.⁴⁴⁶ The EF respondent was candid about what the portfolio can and cannot claim: *“I will be candid that the follow-up reporting on those dialogues was thinner than I would have liked, so what we can say about their downstream effects is limited. They placed the Philippines in a regional conversation, and they likely contributed to the visibility of the programme among neighbouring countries. Beyond that, the documentation does not let us claim more, and we should not over-claim.”*⁴⁴⁷ The EF respondent identified Cambodia’s national guideline update and conversations about World Bank funding for CxCa as possibly linked to portfolio regional influence (and to the French diplomatic and technical assistance network), with Vietnam named in similar terms. *“I cannot claim the spillover with certainty because we have not tracked it systematically. So this is more of a hypothesis to test than an established finding.”*⁴⁴⁸ The Philippine experience under SUCCESS has been documented through implementation research outputs and the protocol publication, which are technical publications. But this has not yet been packaged in a form that other Asia-Pacific countries can readily adopt as a model, e.g. a regional practice guide or an operational toolkit. That gap is consequential for the next round of regional learning investment. The South-South learning hypothesis held only weakly in this case.

A complementary regional contribution was enabled because the WHO Regional Office for the Western Pacific is based in Manila, and Philippine engagement could feed regional strategy directly. The Philippine civil society lead was invited to join the taskforce that developed the regional strategic framework for CxCa control and elimination in the Western Pacific, and the Regional Committee for the Western Pacific adopted a resolution endorsing the framework for 2023 to 2030.⁴⁴⁹

UICC’s portfolio role in the dialogues was concentrated at global level advocacy and national coalition-building, rather than at the level of national policy dialogue or awareness raising, and UICC’s transition from consortium partner in Phase 1 to service provider in Phase 2 structurally reduced UICC’s direct engagement in Phase 2 South-South work, with subsequent advocacy capacity-building flowing through new partners such as ACHA, primarily in Africa.⁴⁵⁰

4.3.4 IMPLEMENTATION EFFICIENCY (EQ4)

EQ4.1 How timely, cost-efficient/ cost-effective was implementation and what factors have been considered to ensure that value for money has been achieved from an efficiency standpoint? What mechanisms contributed to efficiency gains in different contexts?

⁴⁴⁶ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁴⁷ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

⁴⁴⁸ Ibid.

⁴⁴⁹ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁵⁰ KII, Ms. Lisa Huang, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

SUCCESS in the Philippines was not implemented on time and was not implemented inefficiently. Those two statements both hold. In a context where the project lost close to two years to a combination of COVID-19, a nearly year-long ethics review, a delayed MoA, and a change of DoH leadership, value for money was achieved through three mechanisms that compounded: leveraging the existing GeneXpert platform rather than building parallel laboratory infrastructure, embedding training and supervision into existing DoH personnel rather than hiring a project-only workforce, and running international procurement through UNICEF Supply Division to capture global access pricing rather than contract directly. The qualitative value for money judgment is positive, the timeliness judgment is honest about a slow start that the project did not control.

The timeline slippage was substantial, specific and largely beyond the control of the project management. The grant was signed between Unitaïd and EF in December 2019. The in-person scoping mission to the Philippines was cancelled because of COVID-19, with a virtual introductory meeting with the DoH held on 28 July 2020. The MoA between the DoH and Jhpiego was executed on 12 April 2021, sixteen months after the grant start, partly due to the need to re-contract at global level a new SUCCESS consortium partner, a portfolio-wide delay that affected the whole programme rather than the Philippines alone for country level support. National ethics review of the implementation research protocol took close to a year, shifting the research start by roughly twelve months and meaning the planned twelve-month follow-up could not be fully collected within the Philippine timeline. The first women were screened on 7 November 2021, just under two years after the grant signing.⁴⁵¹ A subsequent change of DoH leadership in 2023 briefly slowed the national cancer control work that the project depended on. The first no-cost extension of twelve months, granted to all Phase 1 outputs in response to pandemic-related delays, identified the Philippines as the project country most affected by COVID-19 and absorbed the largest activity shift from 2021 into 2022 and 2023.⁴⁵² Once services started in late 2021, the project moved quickly: facility-level training was completed and all 30 sites were providing screening and treatment services by 2022, and by 2024 the project supported the DoH to develop the National Cervical Cancer Elimination Strategy 2025-2028. The pattern is a slow, pandemic-constrained start followed by steady acceleration, not a project with persistent timeliness problems.

Value for money was achieved through reinforcing cost-effectiveness mechanisms, although supervision produced an inefficiency. The first mechanism for cost-saving is the decision to use existing GeneXpert lab equipment for HPV testing, also described under EQ2.1. The BGHMC provider characterised the efficiency story as: “On efficiency, the GeneXpert integration is a good efficiency story. Using existing infrastructure removed the need for capital investment in new equipment. That was smart”. The second cost-saving mechanism is central to the portfolio’s market shaping strategy: pooled procurement of equipment, global price negotiations and use of UNICEF Supply Division, resulting in a portfolio-wide reduction of approximately 40% on HPV tests and 45 to 52% on TA devices, and yielded a per-patient treatment cost of roughly USD 4 once TA displaced cryotherapy. The third efficiency measure was using and training existing DoH health workforce for project implementation, instead of recruiting dedicated project staff. This mechanism however also hides an efficiency trade-off, according to the same BGHMC provider: “The supervision function, absorbing it into existing staff without dedicated budget, may have seemed efficient on paper but it meant supervision was rationed.

⁴⁵¹ SUCCESS grant data, internal. Figures drawn from the Unitaïd–EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁵² Ibid.

Visits were delayed, mentorship was inconsistent, and the data coming back from supervised facilities was incomplete.[...]. So it looked lean but it was actually under-resourced in ways that created inefficiencies elsewhere.”⁴⁵³ The Jhpiego country focal point confirmed that “..lack of regional and rotating field coordinators reduced efficiency and resource use. Dedicated project and regional coordinators would have improved implementation significantly.”⁴⁵⁴

On grant absorption, the Philippine first-phase COP budget of approximately USD 2,832,681 was tracked discretely through the transition into Phase 2, with project staff as the single largest cost category across the four-country grant, consistent with a project built around training, supply-chain set-up, implementation research and direct technical support rather than capital investment.⁴⁵⁵

EQ 4.2 Has learning been captured and shared strategically, and how has project learning been incorporated in the lifetime of the investments?

SUCCESS in the Philippines produced a richer learning archive than most country case studies, and used it unevenly. In a context where the project carried implementation research, costing and policy guideline development on top of service delivery, the learning outputs (the BMJ Open protocol publication, the Final Draft Global SUCCESS Implementation Research Study Report, the C4P costing exercise, the komiks demand-generation booklet) functioned as instruments for decision making: they were used to inform the DoH’s 2025 budget request, the National Cervical Cancer Elimination Strategy 2025-2028, the Manual of Operations for organised screening, and the HTA submission. Missed opportunities were in translating cost evidence into investment-case advocacy for (domestic) resource mobilisation and packaging the country experience for use by neighbouring countries (see also EQ 3.3).

The Philippines operations research learning fed directly into national policy and strategies. The project tracked three algorithms across the four countries, and the Philippines was the only country to use all three: screen-and-treat with visual assessment for eligibility (the most common across the supported sites), screen-triage-and-treat, and screen, triage, diagnose and treat with histology confirmation, used at a minority of sites. The Jhpiego national lead has since confirmed that there was no pathway in which women positive for HPV 16/18 went straight to treatment without visual assessment: all women passed through visual assessment for treatment (VAT) as per protocol. In Phase 1 the majority of sites used what the programme calls Algorithm 1, under which an HPV-positive woman who returned for VAT and was eligible was treated whether or not the visual assessment showed a discrete lesion, with the whole squamocolumnar junction ablated when none was seen. This deliberate flexibility produced comparative evidence the DoH used in the national algorithm discussion.⁴⁵⁶ The implementation research findings fed the national strategy. For example, they confirmed the acceptability and preference for self-sampling at 94% across the Philippine sample, which removed the empirical question from the strategy document. The research also indicated the correlation between loss to follow up and late notification of HPV positive results, which gave the DoH a specific operational target: shorten the time between sample collection and result return. They generated the cost-to-women evidence (approximately USD 6 per visit in transport, food and lost

⁴⁵³ KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

⁴⁵⁴ KII, Jhpiego Philippines country focal point, conducted April 2026.

⁴⁵⁵ SUCCESS grant data, internal. Figures drawn from the Unitaied-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁵⁶ Ibid.

wages from the IR exit interviews) that informed the Phase 2 community-based design.⁴⁵⁷ The C4P costing exercise validated in July 2024 was used directly to underpin the DoH's 2025 budget request for HPV testing.⁴⁵⁸

The learning-to-practice gap is at the translation layer between costing and investment case. The Jhpiego country focal point identified the gap precisely. Costing exercises were completed, an investment case that translates costing into the language of value for money and fiscal impact for parliamentary and LGU budget advocacy was not.⁴⁵⁹ A second gap is at the regional translation layer, where the Manila 2023 dialogue placed the Philippines in the conversation but did not produce documented technical transfer to neighbouring countries, as set out under EQ3.3.⁴⁶⁰ The implication is consistent across both gaps. SUCCESS Philippines generated rigorous evidence and made it available, what was missing was the next-stage packaging that would convert evidence into policy and fiscal change. The next phase of the Portfolio should treat investment-case development as a deliberate component of any future Unitaid programming round in similar settings, not as an add-on activity.

EQ 4.3 How effectively have strategic, implementation and sustainability/scalability risks been identified and managed throughout implementation?

Two clarifications frame this section. First, risk management in the SUCCESS theory of change means identifying risks and assumptions in advance and mitigating them as they arise, so the assessment separates what the project foresaw and managed from what it did not. The risks it did identify and adapt to were mainly the pandemic and approval delays, handled through the two grant amendments and the shift toward tertiary and then community-based delivery. The risks it arguably should have foreseen are on the institutional and data-systems side: that the national monitoring system was not built to capture treatment outcomes, and that no national screening protocol would be settled by project close.

The Philippine engagement faced a set of risks that were largely identified in real time and managed unevenly. In a context of pandemic disruption, ethics-review delay, devolved governance, shared diagnostic infrastructure across TB-HIV-COVID-HPV demands, persistent high unit price of HPV tests relative to fiscal space, weak national data systems and political-administrative change, the project responded to most through structural adaptation (the COVID-driven pivot to tertiary hospitals, the cost-extension to community-based self-sampling) and to others through workaround rather than resolution (the FHSIS treatment-outcome gap, the unresolved national algorithm decision). The Second Amendment grant document is itself the most consequential risk-management document, because it formalised the timeline extension and the Phase 2 design that absorbed the lessons of Phase 1.

Inside the project, the COVID-19 response itself was a documented risk-management adaptation. The Jhpiego country focal point described the early-pandemic pivot with primary care access restricted,

⁴⁵⁷ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

⁴⁵⁸ SUCCESS grant data, internal. Figures drawn from the Unitaid-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁵⁹ KII, Jhpiego Philippines country focal point, conducted April 2026.

⁴⁶⁰ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

screening migrated to tertiary hospitals that were operationally open but not structurally incentivised for preventive care, which weakened follow-up, and the monitoring data later showed that women screened in community settings had stronger linkage than tertiary-only women, prompting the Phase 2 strategic shift toward community-based self-sampling.⁴⁶¹ The Phase 2 cost-extension is therefore both a value-add (testing a more ambitious community model) and a risk-driven adaptation (responding to the tertiary-hospital weakness observed in Phase 1).

Supply-chain vulnerability was a further unmanaged risk, illustrated by the BGHMC six-week mid-2024 cartridge stock-out (a customs-clearance delay rather than a forecasting failure), the 625 cytology cartridges that expired in July 2023 because of PreservCyt shipping delays (USD 6,187, within expected loss percentages), and the treatment-device supply interruption at Tanza that ran three weeks. Each is a single event but together they describe a supply chain operating without domestic buffer stock and without redundancy for foreseeable customs and shipping risk.⁴⁶² The DoH leadership change in 2023 and the political-cycle risk around the May 2025 national elections were identified by the project as ongoing risks but their management depended on factors outside the project's direct control, which is the honest framing rather than a claim of effective management.⁴⁶³

4.3.5 OVERVIEW OF KEY LESSONS FOR THE SIX LEARNING THEMES

Service delivery models and commodity supply. *(This theme examines various service delivery models to increase access and coverage. It will assess the effectiveness of these supply chains and the utilisation of commodities, especially TA devices, within the context of CxCa elimination programmes)*

Key lessons, for lifting into the main report:

- Build on what already exists. HPV testing ran on the installed GeneXpert TB and HIV base, so no parallel laboratory system and no new capital outlay were needed.
 - The model fails on the operating environment, not the model itself: TB demand on shared machines, specimen transport from peripheral sites, and supply continuity are where it breaks.
 - Start domestic procurement early.
 - Protect treatment quality at low-volume sites. TA competency needs minimum patient volumes or periodic re-assessment.
1. Service delivery in the Philippines worked because the project did not build a parallel system. HPV testing ran on the existing GeneXpert installed base used for tuberculosis and HIV diagnostics, TA devices displaced cryotherapy in the procurement plan and accounted for roughly 93% of treatment offered, and self-sampling was the default sampling mode at 30 facilities across Luzon, the Visayas and Mindanao. Cervical cancer screening was integrated

⁴⁶¹ KII, Jhpigo Philippines country focal point, conducted April 2026.

⁴⁶² KII, OB-gyne oncologist and cervical cancer focal point, BGHMC, Cordillera Administrative Region, conducted April 2026.

⁴⁶³ SUCCESS grant data, internal. Figures drawn from the Unitaïd-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

into family planning, reproductive health and HIV services rather than into a vertical CxCa programme.

2. Where it under-performed, the cause was not the model but the operating environment: TB demand on shared GeneXpert platforms and the six-week mid-2024 HPV cartridge stock-out at BGHMC traced to a customs clearance delay. The durable assets are the workforce and the platform, the fragile assets are the consumables and the supervision.⁴⁶⁴
3. The implication for any post-Unitaid scale-up is that domestic procurement of cartridges and consumables has a two-to-three-year establishment period,
4. and that the workforce competency for TA requires minimum-patient volumes or regular re-assessment rather than only initial certification.⁴⁶⁵

Continuum of care. (*This theme focused on understanding how effectively women who screened positive for HPV, as well as for precancerous or invasive cervical lesions were linked to appropriate treatment, including the effectiveness of the follow-up mechanisms that support these women through the continuum of care.*)

Key lessons, for lifting into the main report:

- The binding loss is at return for assessment, not treatment. Once a woman returns and is found eligible, treatment completion is high, about 87 to 100% across SUCCESS countries.
 - The cascade holds where someone actively follows up and breaks where no one does. At strong sites this rested on informal provider effort, which is fragile.
 - Fund patient navigation and recall as a named function, not an add-on to an overloaded provider.
 - Speed protects linkage to care. A shorter time from sample to result predicts return, so the on-site laboratory model was protective.
1. The Philippine cascade is best read from the Jhpiego programmatic record: of the HPV-positive women, about 57% returned for visual assessment and about 38% were ultimately treated, with the largest loss at the return-for-assessment step. The implementation-research cohort, a smaller actively-followed group, separately recorded about 70% within-90-day completion and about 54% non-time-restricted linkage, reconciled by
 2. the finding that the drop-off occurred at the return-for-assessment step rather than at the treatment step. On-site laboratory model produced the shortest median time-to-result (31 days) of any SUCCESS country, against up to 185 days in Côte d'Ivoire under centralised processing.⁴⁶⁶

⁴⁶⁴ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

⁴⁶⁵ KII, Cancer Control Division, Disease Prevention and Control Bureau, Department of Health, conducted April 2026.

⁴⁶⁶ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

3. Treatment completion once assessed and eligible was 87 to 100% across the SUCCESS countries. The mechanism that largely determines linkage to treatment is same-day screen/triage/treat, available routinely at Parañaque CHO and BGHMC but unavailable at Tagkawayan RHU (where the nearest treatment facility in Lucena City is a two-and-a-half-hour journey) and intermittent at Tanza RHU.
4. Continuity at the high-performing sites depends on informal provider efforts (personal phone calls, BHW tracing, the Parañaque phone-not-text result-notification protocol) that does not appear in the formal monitoring system and is structurally vulnerable to staff turnover.
5. The implication is that the cascade outcome is a function of system design at the return-for-assessment step, more than of women's willingness.⁴⁶⁷

Leave No One Behind (LNOB), equity & gender barriers. *(This theme focused on lessons regarding gender, equity and social inclusion, and how services increase access for vulnerable women, including women living with HIV, rural women and those living in poverty)*

Key lessons, for lifting into the main report:

- Self-sampling is the gendered design choice that worked, removing the pelvic-exam barrier and producing the highest self-sampling preference in the portfolio.
 - It did not work for women living with HIV. Enrolment fell well short of target because screening was not integrated into HIV care, not because women refused.
 - Indirect follow-up costs (fare, childcare, lost wages) are a real equity barrier and shaped the Phase 2 community-based design.
 - Equity has to be designed in through integration and cost support, not assumed from a general-population offer.
1. The gendered design choice that worked was self-sampling. Philippine women recorded the highest self-sampling preference of the four SUCCESS countries at 94%, with privacy, simplicity and avoidance of the pelvic examination as the named reasons across the Tanza FGD and the WLHIV FGD. The Parañaque midwife described the change in the client-provider dynamic that self-sampling produced as a shift from clinical passivity to agency.
 2. Equity design did not work for women living with HIV: the project enrolled approximately 140 WLHIV against a target of 664 over the grant, and the implementation research enrolled 62 against a target of 440 per country.⁴⁶⁸ The WLHIV FGD evidence and the San Lazaro Hospital KII together identify the mechanism: GeneXpert infrastructure was physically present at HIV-platform sites but organisationally siloed, dual stigma (HIV plus CxCa disclosure) raised the cost of presenting at a new facility, and the screen-triage-treat pathway specific to WLHIV was not systematically known to frontline HIV providers. The WHHEN respondent reached the same

⁴⁶⁷ FGD, Service Providers of Screening Services, 22 April 2026. Five participants drawn from the Quezon City Health Department, the Parañaque CHO, the Tanza RHU (Cavite) and the San Lazaro Hospital HIV Satellite Clinic (Manila). Participants identified by first-name pseudonym (Maria, Rowena, Dennis, Nenita, Carla) per the informed consent protocol, institutional affiliations recorded.

⁴⁶⁸ Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024, sections 4.1, 4.3, 4.5 and 4.8 (Philippines cohort cascade) and section 5 (limitations), SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields for indicators O3.1, O3.2 and O3.4. Both are internal project documents and are not externally citable.

conclusion from the supply side: demand was not the limiting factor for WLHIV, supply-side integration with HIV care was.

3. A separate equity finding emerged from the Tanza FGD: the indirect costs of follow-up (jeepney fare, childcare, lost wages on the order of USD 6 per visit in IR exit interviews) are highest at the treatment stage, not the screening stage, which means screen-positive women bear the largest indirect cost precisely when the health need is most urgent.⁴⁶⁹

Programming at scale. *(This theme interrogates factors that facilitate the national scale-up of successful interventions different steps/phases of country journey to achieve scale, and how pilot projects can be effectively transitioned to national-level implementation.)*

Key lessons, for lifting into the main report:

- Scale was shown sub-nationally through extension beyond the 30 sites, but not yet through routine national DoH procurement or a national protocol. The number of additional sites taking up the model was not systematically tracked, so this is described qualitatively rather than quantified.
 - The architectural strength that enabled a fast start, running on existing platforms, also limits national scale, which needs standardised procurement and financing the project could not build alone.
 - Honest framing: a sub-national success not yet converted into a national, self-financing programme in a country of over 100 million.
1. Programming at scale in the Philippines is constrained by the same architectural feature that explains site-level variation: a devolved health system in which LGUs set budgets, priorities and screening algorithms. The most consequential structural variable is not training, not equipment, not technology choice, and not provider competency: it is LGU commitment. Quezon City's August 2024 Integrated Cancer Control Ordinance is the rare instance of legally binding institutional commitment at LGU level, Parañaque and Navotas show the model embedding through health-office practice, Minglanilla shows the limit of "the LGU allows it, rather than the LGU driving it."⁴⁷⁰
 2. The model has demonstrated scalability through extension beyond the 30 SUCCESS sites via the Roche-supported CLAMS network⁴⁷¹ (more than 5,000 women screened by close of reporting) and through LGU uptake,
 3. it has not yet demonstrated scalability through routine national DoH procurement through a national screening registry, or through PhilHealth YAKAP benefit-package operational coverage.

⁴⁶⁹ FGD, Women Users, Tanza RHU catchment area, Cavite, 20 April 2026. Participants identified by pseudonym per the informed consent protocol, real names withheld.

⁴⁷⁰ Kil, Senior Midwife and cervical cancer focal person, Minglanilla RHU, Cebu, conducted April 2026.

⁴⁷¹ The CLAMS network in the Philippines refers to the Centralized Laboratory Model for HPV DNA Screening (CLAMS), a public-health initiative designed to expand access to cervical cancer screening using HPV DNA testing. Roche Diagnostics supports the network by providing diagnostic technology, expertise, and partnerships with local governments and healthcare organizations. It is not supported by Unitaaid.

4. The case study's honest framing is that the Philippines, with a population well over 100 million, is a successful proof of concept for woman-centred screening using a high-performance test with self-sampling, but not yet a national programme operating at full scale.⁴⁷²

Sustainable financing. *(This theme examines the primary cost drivers associated with screening and treatment and explores which financing approaches have the greatest potential to enable the sustainable scale-up of CxCa elimination efforts.)*

Key lessons, for lifting into the main report:

- Financing is the longest and most decisive SUCCESS-enabled transition and is still pending.
 - The PhilHealth YAKAP benefit-package update is the decisive step, until it and procurement are in place, domestic access is not secured.
 - Costing is necessary but not sufficient. The C4P exercise fed the budget request but does not by itself create a recurrent budget line, an investment case is needed for advocacy.
1. Sustainable financing is the longest of the SUCCESS-enabled transitions and the one most likely to determine whether the Philippine model survives the end of donor funding. The financing mix is plural: PhilHealth on the demand side under UHC (PhilHealth reimburses accredited providers for covered screening and treatment services), the DoH Cancer Control Division on the supply side, LGUs through their devolved health budgets, the Global Fund GC7 allocation of 20,000 HPV test kits for women living with HIV and high-risk populations, and a first domestic resource commitment for HPV testing announced in late 2025.
 2. Until the YAKAP benefit package is operational and until DoH procurement is established, the Philippine programme depends on external channels (UNICEF Supply Division, GC7) that are not permanent. The WHO Country Office respondent stated the implication directly: a programme running on Unitaids funding or DoH discretionary allocations is not institutionalised in any meaningful sense because both can be withdrawn.⁴⁷³
 3. The PhilHealth YAKAP benefit-package update targeted for Q4 2026 is the decisive step, and the operational risk identified by the PhilHealth benefits team is that reimbursement rates set too low cause providers to decline accreditation or to require co-payments that defeat the purpose of the benefit.⁴⁷⁴
 4. The analytical gap that the C4P costing exercise alone does not close: cost data is necessary but not sufficient for parliamentary and LGU budget advocacy, which requires an investment case in the language of value for money and fiscal impact.

South-South learning. *(This theme considers mechanisms for effective collaboration and knowledge sharing between countries, with a particular emphasis on South-South learning. The evaluation will*

⁴⁷² SUCCESS grant data, internal. Figures drawn from the Unitaids-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

⁴⁷³ KII, WHO Country Office, Philippines, conducted April 2026.

⁴⁷⁴ KII, (joint interview), Philippine Health Insurance Corporation (PhilHealth), benefits development team, conducted April 2026.

consider the role of knowledge products and other means of enhancing learning and collaboration across different contexts).

Key lessons, for lifting into the main report:

- It held only weakly and should not be over-claimed. The Manila 2023 Regional Dialogue gave regional visibility, but documented downstream diffusion is thin.
- It becomes more than a visibility event only when country-to-country exchange is monitored and resourced, which was not here.
- A regional operational toolkit would give the learning a concrete vehicle to travel through.
 1. The case study's lesson is that South-South learning will function as more than a regional visibility event only if the early-adopter country experience is deliberately packaged for adoption by neighbouring countries in the form of operational toolkits, costed practice guides and structured technical-assistance arrangements rather than left as a peer-network deliverable.⁴⁷⁵
 2. South-South learning in this case held only weakly, and the case study should not over-claim it. The Manila 2023 Regional Dialogue convened 76 participants from 55 organisations representing 23 countries on 10 to 11 May 2023, with an on-site project facility visit. Beyond the regional positioning, the documented downstream effects are thin. The EF respondent was candid that the follow-up reporting on the dialogues was thinner than she would have liked, that the dialogues placed the Philippines in a regional conversation and contributed to programme visibility among neighbouring countries, and that the documentation does not let the portfolio claim more than that.
 3. Philippine civil society lead joined the WHO Western Pacific regional taskforce that developed the strategic framework for CxCa control adopted by the Regional Committee for 2023-2030.⁴⁷⁶
 4. Cambodia and Vietnam diffusion signals exist (Cambodia's national guideline update, conversations on World Bank funding) but were not systematically tracked, and the analytically appropriate framing is that these are hypotheses to test rather than findings to claim.

4.3.6 OVERVIEW OF SIX HYPOTHESES

Table 29: Hypothesis testing

Hypothesis	Key Findings (in bullet form)
1. Proof of feasibility of community HPV self-sampling triggers national	Verdict: Held strongly at facility level, community component still launching.

⁴⁷⁵ KII, EF (Unitaid primary grantee for SUCCESS), conducted April 2026.

⁴⁷⁶ SUCCESS grant data, internal. Figures drawn from the Unitaid-EF grant agreement face sheet, the 2023 project plan amendment (cost-extension), and SUCCESS annual narrative reports for 2020 through 2024. These project documents are not externally citable.

adoption as a standard service model	• Self-sampling acceptance was 97% among general-population women and 100% among WLHIV at the first three Philippine sites, and 94% across the implementation research portfolio (the highest of the four SUCCESS countries, Final IR Study Report, 30 Sept 2024). • HPV testing and self-sampling are embedded in the National Cervical Cancer Elimination Strategy 2025-2028, the Manual of Operations for organised screening, and the HTA process, HPV indicators are being added to the FHSIS national list from 2025 reporting onward. • The Phase 2 community-based self-sampling study began enrolment only in the first week of February 2025, later than Burkina Faso and Guatemala, so the community-level proof of concept is still being generated rather than complete.
2. Integration into existing services + same-day testing/treatment triggers client convenience and HW confidence, reducing LTFU	Verdict: Partially held, mechanism worked where the threshold conditions held. • The cascade outcomes below are built on programmatic figures supplied by Jhpiego Philippines, the implementing partner. The evaluation has not been able to verify these independently against EF's own indicator data, and the two sources should be reconciled before the cascade is treated as final, where they differ, the EF indicator data is the reference point for an independent evaluation. On the Jhpiego figures, across Phase 1 and Phase 2 about 34,416 women were HPV-screened, 3,216 (9.3%) were HPV-positive, 1,839 (about 57%) returned for visual assessment, 1,310 were found eligible with a pre-cancer lesion, and 1,216 were treated. The single largest loss is at the return for visual assessment, where about two in five HPV-positive women did not come back. Once a woman returned and was found eligible, treatment was likely, at about 93% of eligible women treated. • One figure warrants caution before publication: about 69% of the women who returned for visual assessment were recorded as eligible with a pre-cancer lesion (1,121 of 1,631 in Phase 1). That is a high positive share for visual assessment, where a much lower proportion of HPV-positive women would usually be expected to have a treatable lesion. It is not clear whether eligible here means a visible lesion meeting ablation criteria or a broader treatment indication, and this should be confirmed with the data owner. If the threshold was set loosely it would point to some women being treated who did not need to be, which is the over-treatment risk raised in review. • Among the same-day screen-and-treat sites (Paranaque CHO, BGHMC), treatment completion once assessed and eligible was reported at about 96%. For the programme as a whole the Jhpiego cascade puts this nearer 93%

	(1,216 of 1,310 eligible women across both phases), so the 96% reflects the better-resourced sites rather than the national figure. - Where one of the threshold conditions failed, the cascade broke: the treatment-device supply interruption at Tanza lost an eligible woman in mid-2023, the BGHMC six-week mid-2024 cartridge stock-out turned women away during a customs delay, the Tagkawayan referral to Lucena (2.5-3 hours each way) produced women on tracking lists who tested positive more than a year ago and have still not accessed treatment. - Two further figures come from the implementation-research cohort, which is a smaller, actively-followed group and not the full programmatic population: within-90-day completion of about 70%, against the roughly 38% of all HPV-positive women treated in the programmatic cascade. The most likely reason the research cohort completed at almost twice the programmatic rate is that active follow-up: research staff traced, reminded and brought women back in a way the routine service could not sustain at scale. That is itself a finding, not a footnote, and it is consistent with the wider pattern that the cascade holds wherever someone takes responsibility for chasing women back, as the Tanza midwife did, and breaks where no one does. The non-time-restricted linkage figure of about 54% from the same cohort should be read against the programmatic cascade above, not merged with it. In both the programmatic and the research figures the drop-off is at the return-for-assessment step, not at treatment. (Final IR Study Report, 30 Sept 2024.)
3. AI-AVE and HPV DNA testing increase HW diagnostic confidence, improving continuity of care	Verdict: Held with qualifications, GeneXpert integration strong, TA competency volume-dependent. - GeneXpert integration was efficient because lab staff already operated the platform under the national TB programme: BGHMC added the GeneXpert HPV cartridge to three existing machines without procuring new equipment. - Task-shifting trained 115 service providers (81 medical doctors, 12 midwives, 18 nurses, 3 nursing attendants, 1 other) in HPV screening, visual inspection, TA and cryotherapy, plus 36 medical technologists and 7 pathologists on GeneXpert HPV detection (RRL1, section 5.3). - TA competency degraded predictably in facilities with insufficient case volumes (HCP Service Providers Screening FGD), exemplified by the Tanza midwife trained in 2022 who experienced confidence loss after an extended period without a trained physician for case review and without a formal Jhpiego refresher.
4. Proof of concept triggers national	Verdict: Partially held, policy adoption real, financial adoption

government buy-in, leading to policy and budget inclusion	pending. • Policy adoption is real: National Cervical Cancer Elimination Strategy 2025-2028, national operational plan for secondary prevention, HPV assay kits and TA devices in the HTA process, clinical practice guidelines finalised, FHSIS indicator addition for 2025 reporting. • Financial adoption is pending: PhilHealth YAKAP benefit package update targeted for Q4 2026, first domestic resource commitment for HPV testing announced in late 2025 but not yet a recurrent budget line. • DoH Administrative Order retaining three screening modalities (HPV, VIA, cytology) rather than moving immediately to HPV alone, driven by the unit price of HPV tests relative to fiscal space, signals that full HPV transition is deferred.
5. Price negotiation and volume procurement trigger MoH procurement otherwise financially infeasible	Verdict: Partially held, price reductions captured, but post-project DoH procurement not yet established. • Global access prices captured through Unitaid channel: Cepheid Xpert HPV at USD 14.90 Ex-works (145 countries, GX 16 programme), Roche cobas HPV at USD 7.90 CPT (89 LMICs). Median portfolio price reduction was approximately 40% on HPV tests and 45-52% on TA device ceiling prices (Demke et al. 2024, Affordability of Screen and Treat Tools, WHO/Unitaid). • TA cut the per-patient cost of treating precancer by approximately 75% to roughly USD 4 versus cryotherapy. • BUT setting up HPV consumables in the government procurement system has a two-to-three year establishment period at minimum (KII, DoH-DPCB), the country never paid commercial price during the project period because of the Unitaid channel, and the vulnerability is what happens when that channel closes (KII, BGHMC).
6. Structured knowledge sharing from early adopters shortens innovation-to-scale timeline in later-adopter countries	Verdict: Held only weakly, regional positioning real, country-to-country adoption thin. • Manila 2023 Regional Dialogue convened 76 participants from 55 organisations representing 23 countries (10-11 May 2023), the Philippine civil society lead joined the WHO Western Pacific regional taskforce for the strategic framework 2023-2030. • Follow-up reporting on the regional dialogues was thinner than EF would have wanted, documentation does not let the portfolio claim systematic technical transfer to neighbouring countries. • Cambodia and Vietnam diffusion signals exist (Cambodia's national guideline update, World Bank funding conversations) but were not systematically tracked (KII, EF), the case study should treat these as hypotheses to test rather than findings.

4.4 CONCLUSIONS AND CONSIDERATIONS FOR THE WAY FORWARD

On responsiveness (EQ1), SUCCESS fitted the Philippines because it ran on the country's own architecture: HPV testing on the existing GeneXpert installed base, self-sampling, integration into family planning and HIV services, task-shifting to nurses and midwives, and civil-society demand-generation. The binding mechanism was institutional embedding through DoH structures, not parallel delivery. Two design intentions misfired: the WLHIV target (140 against 664) because GeneXpert was physically present at HIV-platform sites but organisationally siloed, and the Phase 2 community-based phase, which did not begin enrolment until February 2025.

On achievement (EQ2), the Philippines screened approximately 40,696 women, including roughly 31,498 HPV tests, meeting the re-set cumulative target while falling short of the original 50,000-test COP target by about a third. The cascade analysis works from the Jhpiego programmatic figures (about 34,416 women HPV-screened across both phases), which are implementer-supplied and still to be reconciled against the EF indicator data. Treatment was reliable once a woman returned, at about 93% of those found eligible, and the binding loss was the return for visual assessment, not treatment. In the implementation-research cohort about 70% completed within 90 days against roughly 38% programmatically, a gap that most likely reflects active follow-up by research staff. The cross-country comparison and the population and service-model breakdown still depend on the disaggregated indicator data requested from EF. Same-day screen-and-treat worked at well-resourced sites (Parañaque, BGHMC) and broke at peripheral sites (Tanza, Tagkawayan). Market-shaping captured price reductions (Cepheid USD 14.90, Roche USD 7.90, TA ceiling cut 45-52%, per-patient cost ≈4 USD) and only partially the test-side, the customs-driven six-week BGHMC stock-out in mid-2024 illustrates the country-side bottleneck.

On integration and sustainability (EQ3), policy adoption is real and financing adoption is pending. The NCCES 2025-2028, the National Operational Plan, HTA inclusion, FHSIS indicator addition from 2025, and Quezon City Ordinance 3285-2024 are concrete structural outputs. The PhilHealth YAKAP outpatient benefit-package update (Q4 2026 target) is meant to pay screening providers but not yet operational, the Global Fund GC7 allocation of 20,000 HPV kits is meant for WLHIV only, routine DoH procurement of HPV test kits has a two-to-three-year establishment period. The FHSIS does not yet capture treatment outcomes, the national algorithm decision was not finalised at project close, and the supply chain operated without domestic buffer or customs-delay redundancy.

South-South learning was weak: the Manila 2023 Regional Dialogue placed the Philippines in a regional conversation, and country-to-country diffusion to Cambodia and Vietnam was not monitored.

On efficiency (EQ4), the project lost close to two years to COVID-19, the year-long ethics review, the delayed MoA (12 April 2021) and a 2023 DoH leadership change. Once started, the project moved efficiently, capturing global access prices, leveraging the GeneXpert installed base, and embedding training and supervision into existing DoH personnel.

Attribution discipline. SUCCESS demonstrably contributed the 30-site network, the IR evidence base including the three-algorithm comparison the Philippines uniquely produced, the C4P costing that fed the DoH 2025 budget request, the HTA submission, and the training of 115 service providers and 36 medical technologists.

Already in motion or driven by other actors: RA 11215 (NICCA, 2019), RA 11223 (UHC Act, 2019), the

GeneXpert installed base from the national TB programme, the Cancer Warriors Foundation, the Roche-supported CLAMS programme, and the Global Fund GC7 allocation.

Any contribution claim about the Philippine sustainability outcomes should reflect the convergence of programme inputs with a pre-existing financing architecture,

4.4.1 HIGH LEVEL (STRATEGIC OR URGENT) RECOMMENDATIONS

The five recommendations below specify action, actor, timeline, resource implication, and traceable finding.

1. **Unitaid: embed health financing perspective in country selection and design in the next portfolio cycle, not as a midstream addition.** Philippine sustainability outcomes reflect convergence with a pre-existing financing architecture (RA 11215, RA 11223, the HTA process). The same model will not produce the same outcome in countries without that architecture. Audience: Unitaid Board and portfolio leads. Finding: EQ3.2.
2. **WHO Philippines and DoH-SCMS: facilitate a documented bridging mechanism between Unitaid channel closure on 30 April 2026 and routine DoH-CCD procurement** Elements: UNICEF Supply Division procurement extension for HPV cartridges through 2027, GC7 cartridge eligibility extension where defensible, LGU bulk-purchasing for high-performing sites, a public-sector cartridge buffer-stock target, and a public local-supplier list for TA consumables. Timeline: mechanism agreed by Q1 2026. Finding: EQ2.4, EQ3.1 (BGHMC stock-out, DoH-DPCB).
3. **PhilHealth: re-open the YAKAP outpatient benefit package design for CxCa screening rather than refine it incrementally.** The screening side is structurally inadequate relative to the treatment side, refining an under-rated package will reproduce the operational risk (providers declining accreditation or requiring co-payments). Re-opening means rates calibrated to actual market service costs, provider co-payment caps, and claims structured so HIV clinics can bundle CxCa screening with antiretroviral refill. Timeline: rate-setting Q2 2026, Board approval Q4 2026. Resource: ADB-supported cost data in place, outstanding work is political alignment between PhilHealth, DoH and PSGO senior membership. Finding: EQ3.1, EQ3.2.
4. **DoH-DPCB: issue an administrative order specifying the national screening algorithm by Q3 2026 and update FHSIS treatment-outcome indicators in the same instrument.** The Philippines piloted all three algorithms, the comparative evidence now exists. Without the decision, scale-up beyond the 30 SUCCESS sites cannot be standardised, without the FHSIS update, the country cannot measure progress against the 90-70-90 framework. Resource: under existing DoH-DPCB authority. Finding: EQ4.2, EQ4.3.
5. **DoH-DPCB and the HIV, AIDS and STI Prevention and Control Program: issue a joint administrative order by Q4 2026 requiring HIV satellite clinics to offer CxCa screening as routine annual care for women living with HIV, with YAKAP coverage of both encounters in a single visit.** Supported by peer-navigator roles embedded at HIV satellite clinics through WHHEN, funded via Global Fund GC7 or LGU CHW allocations. The 140-vs-664 WLHIV outcome is a structural integration failure, the mechanism that solves it is co-located service delivery under a single visit and a single billing event. Resource: provider training (existing DoH-CCD training cascade), cartridge supply via Global Fund GC7. Finding: EQ1.3, EQ2.1, EQ2.3 (San Lazaro, WHHEN, WLHIV FGD).

4.4.2 OPERATIONAL RECOMMENDATIONS

The operational recommendations are addressed to LGU executives and Provincial Health Offices, to Jhpiego and successor implementers, to civil-society organisations, to facility-level health workers and to supply chain managers.

1. **Successor partners (ACHA) and DoH-CCD: regional operational toolkit.** By Q4 2026, package the Philippine experience into a regional operational toolkit for the WHO Western Pacific Region (three-algorithm comparison, CMT design, komiks demand-generation framework, C4P costing template). Resource: ACHA capacity, DoH-CCD coordination. Finding: EQ3.3 EF.
2. **Jhpiego handover of Client Monitoring Tool.** By 30 April 2026, transfer the CMT and paperless QR-code patient navigation system to DoH-CCD with training materials, source code, maintenance arrangement, and a twelve-month technical-support undertaking. Finding: EQ2.2-2.3 Parañaque CHO.
3. **DoH-DPCB cartridge allocation.** By Q2 2026, issue a Department Memorandum specifying cartridge allocation criteria across Centers for Health Development based on LGU screening targets, absorptive capacity and the QSA scoring framework. Finding: EQ2.4 BGHMC stock-out, DoH-DPCB.
4. **PhilHealth and DoH-CCD operational guidance.** By Q3 2026, issue joint guidance for YAKAP implementation at SUCCESS-supported facilities, covering accredited provider lists, billing codes for HPV DNA testing and TA, reimbursement workflow, and a six-month transition grace period. Finding: EQ3.2 the PhilHealth respondents.
5. **LGU executives and PHOs: TA consumables registry.** By Q3 2026, establish a TA device maintenance and spares registry with at least one named local supplier per project facility, verified contacts, indicative pricing, and an annual continuity review. Finding: EQ2.3 Tanza RHU.
6. **Facility-level patient-recall protocols.** By Q4 2026, each SUCCESS-supported facility should have a documented recall protocol: phone-not-text first contact for HPV-positive results, BHW home-visit on third failed attempt, and BHW honoraria at an LGU-set rate. Replaces the informal protocols currently sustained by individual provider effort. Resource: LGU CHW budget. Finding: EQ2.2 Parañaque CHO, Tanza RHU, HCP Screening FGD.
7. **DoH-CCD TA minimum patient-volume guidance.** By Q3 2026, issue minimum-volume guidance for site-level competency. Where facility caseload falls below the threshold for two consecutive quarters, trigger a refresher cycle within the following quarter. Resource: existing DoH-CCD authority. Finding: EQ2.3 HCP Screening FGD.
8. **DoH-SCMS: domestic buffer stock.** By Q1 2026, establish a three-month domestic buffer stock for HPV cartridges and TA consumables across Centers for Health Development to absorb customs clearance delays. Resource: project closeout commodity transfer, DoH-CCD operating budget. Finding: EQ4.3 BGHMC mid-2024 customs stock-out.
9. **DoH-CCD and Bureau of Epidemiology: complete FHSIS indicator update.** By Q4 2026, complete the FHSIS indicator update for HPV screening, screening-positive, return for assessment and treatment outcome, structured to enable LGU-level reporting and to feed the 90-70-90 framework. Resource: existing DoH-CCD and Bureau of Epidemiology authority. Finding: EQ4.3 WHO Philippines.

ANNEX 12.D.A. LIST OF STAKEHOLDERS AND PEOPLE CONSULTED

Data collection drew on 13 key informant interviews reaching 16 named respondents grouped across nine stakeholder categories, supplemented by four focus group discussions with seventeen pseudonymous participants (five HCP general, five HCP screening, three WLHIV, four women users in the Tanza catchment). Pseudonymous FGD participants are listed by category and site rather than by name, in accordance with the consent protocol approved for this evaluation. Real names are withheld.

- 1. DoH national policy and procurement.** Cancer Control Division, Disease Prevention and Control Bureau (KII)
- 2. National insurance.** Two respondents (joint KII), benefits development team, Philippine Health Insurance Corporation
- 3. WHO Country Office.** WHO Philippines (KII)
- 4. Tertiary hospital CxCa specialists.** Jose R. Reyes Memorial Medical Center, Manila (KII), OB-gyne oncologist and CxCa focal point, BGHMC, Cordillera Administrative Region (KII), HIV Satellite Clinic, San Lazaro Hospital, Manila (KII)
- 5. Primary care / LGU facility-based providers.** Nurse Coordinator, Parañaque CHO, NCR (KII), midwife and CxCa focal person, Tanza RHU, Cavite (KII), Senior Midwife and CxCa focal person, Minglanilla RHU, Cebu (KII)
- 6. Civil society and community organising.** Convenor and Coordinator, Women Workers for Health Empowerment Network (WHHEN) (KII)
- 7. Implementing partner.** Jhpiego Philippines country focal point (KII)
- 8. Primary grantee.** EF (Unitaid primary grantee for SUCCESS) (KII)
- 9. Private sector / pharmacy.** Two respondents (joint KII), South Star Drugstore
- 10. FGD: Service providers (general).** 5 participants (pseudonyms): Parañaque CHO, General Trias RHU (Cavite), centralised HPV DNA testing hub Metro Manila, Quezon City Health Department HIV Satellite Clinic, Tagkawayan RHU (Quezon Province). 23 April 2026.
- 11. FGD: Service providers (screening).** 5 participants (pseudonyms): Quezon City Health Department, Parañaque CHO, Tanza RHU (Cavite), San Lazaro Hospital HIV Satellite Clinic (Manila). 22 April 2026.
- 12. FGD: Women living with HIV.** 3 participants (pseudonyms) recruited through the HIV Satellite Clinic at San Lazaro Hospital, PLHIV community networks in Valenzuela and Quezon City, and the Association of Positive Women Philippines. 16 April 2026.
- 13. FGD: Women users.** 4 participants (pseudonyms) from the Tanza RHU catchment area, Cavite. 20 April 2026.
- 14. Documentary partners and additional respondents consulted in the case-study scoping phase.** DoH Bureau of Epidemiology (FHSIS), DoH National Tuberculosis Programme (GeneXpert installed base), UICC representatives (regional dialogue follow-up), Cancer Warriors Foundation (civil society implementation partner under Phase 2 transition), UNICEF Supply Division Philippines (consigned commodity supply), Likhaan Center for Women's Health (Phase 2 community-based organisation partner), Association of Positive Women Advocates (Phase 2 community partner).

ANNEX 12.D.B. DOCUMENTS REVIEWED FOR THE COUNTRY CASE STUDY

The following sources were reviewed during this case study. Internal SUCCESS programme documents are not externally citable but were used to triangulate findings, peer-reviewed and policy-instrument citations are listed in the Reference List (Annex D).

Internal SUCCESS programme documents (Expertise France and Jhpiego Philippines):

- Grant Agreement, 2019-37-SUCCESS, Unitaaid Board Resolution 2019 R19-e (December 2019).
- First No-Cost Extension instrument (twelve-month extension for Phase 1 outputs to November 2023).
- Second Amendment, effective 1 December 2023, increasing the project ceiling to USD 29,572,600 and adding Phase 2 (Outputs 5-9) of USD 5,250,000 through 30 April 2026.
- COP, Philippines (February 2021).
- Procurement Plan, Philippines (October 2020), including international (UNICEF Supply Division) and local (Jhpiego) procurement lines and the projected commodities ceiling of approximately USD 912,000.
- SUCCESS Annual Narrative Reports for 2020, 2021, 2022, 2023 and 2024.
- SUCCESS 2024 Annual Report Flash Report, indicator dataset, Philippines comment fields.
- Final Draft Global SUCCESS Implementation Research Study Report, 30 September 2024 (Philippines cohort cascade and limitations).
- C4P costing exercise output (validated July 2024), used to inform the DoH 2025 budget request.
- Quick Situational Assessment (QSA) scoring records for the 30 SUCCESS facilities (October 2020).
- Health Facility Assessment (HFA) tool and outputs.
- Client Monitoring Tool (CMT) exports (Philippines facility-level monitoring data).
- SUCCESS field stories (2024-2025) including the CeCaRTS motorcycle-courier model and the komiks demand-generation booklet.
- Implementation Research Advisory Group (IRAG) meeting records.
- Joint Project Implementation Committee (JPIC) meeting records.

Philippine policy instruments:

- Republic Act No. 11215, National Integrated Cancer Control Act, 14 February 2019.
- Republic Act No. 11223, Universal Health Care Act, 20 February 2019. • Republic Act No. 12009, Government Procurement Reform Act.
- Republic Act No. 7160, Local Government Code of 1991.
- DoH Administrative Order 2005-0006 (VIA primary screening modality, women aged 25 to 55).
- DoH Administrative Order 2020-0001 (consignment rules for foreign donations of health products).
- DoH Department Circular 2021-034 (9 August 2021), authorising sub-national engagement with SUCCESS.
- DoH Department Memorandum 2021-0393 (15 September 2021), authorising the use of GeneXpert platforms in TB diagnostic laboratories for HPV DNA screening under the project.
- DoH Department Personnel Order 2021-1637, creating the Joint Project Implementation Committee (JPIC).
- DoH Department Personnel Order 2021-2713, creating the Implementation Research Advisory Group (IRAG).
- Memorandum of Agreement between the Department of Health and Jhpiego, executed 12 April 2021.
- Quezon City Ordinance 3285-2024, Integrated Cancer Control Ordinance, August 2024.
- PhilHealth YAKAP outpatient benefit package (CxCa screening, benefit package update on Q4 2026 target, specific Circular numbers not verified, referenced by package name only).
- PhilHealth Konsulta+ outpatient benefit package (referenced by package name only).
- National Cervical Cancer Elimination Strategy 2025-2028 (DoH).
- National Operational Plan for Secondary Prevention Strategies (DoH).
- Manual of Operations, Procedures and Standards for Organised Screening (DoH, WHO Country Office, Jhpiego).

ANNEX 12.D.C. EVALUATION QUESTION MAPPING

The mapping below shows how the four evaluation questions and their sub-questions link to data sources, the six cross-portfolio hypotheses, and the six learning themes. The mapping is included as a navigational reference for future readers of this case study.

Evaluation question	Sub-questions	Primary data sources	Hypotheses tested	Learning themes
EQ1. Responsiveness to country needs and contexts	EQ1.1, EQ1.2, EQ1.3	Kilis Jhpiego, EF, DoH-DPCB, WHO Philippines, Parañaque CHO, Minglanilla RHU, WHHEN, San Lazaro, South Star Drugstore, FGDs Women Users (Tanza), Women Living with HIV	H1, H4	Service delivery models and commodity supply, Leave No One Behind
EQ2. Achievement of intended outcomes	EQ2.1, EQ2.2, EQ2.3, EQ2.4	IR Study Report (PH cohort cascade), Kilis JRMMC, BGHMC, San Lazaro, Parañaque CHO, Tanza RHU, Jhpiego, EF, DoH-DPCB, FGDs Service Providers (general and screening)	H1, H2, H3, H5	Service delivery models and commodity supply, Continuum of care, Programming at scale
EQ3. Integration of services and tools into national strategies	EQ3.1, EQ3.2, EQ3.3	Kilis DoH-DPCB, the PhilHealth respondents, WHO Philippines, Jhpiego, EF, WHHEN, project documents (COP, C4P costing, Annual Reports)	H4, H5, H6	Programming at scale, Sustainable financing, South-South learning
EQ4. Implementation efficiency	EQ4.1, EQ4.2, EQ4.3	Kilis Jhpiego, EF, DoH-DPCB, project financial dataset, Second Amendment grant face sheet, Final IR Study Report	All six (indirectly): EQ4 evidence on efficiency, learning capture and risk informs all hypotheses	Service delivery models and commodity supply, Sustainable financing

ANNEX 12.D.D. REFERENCE LIST

This Reference List compiles every external footnote citation used in the case study. Each entry has been verified via DOI, PMID, ISBN, RA or WHO publication number, or working URL where applicable. Internal SUCCESS programme documents are listed separately in Annex B (Documents Reviewed) rather than here, since they are not externally citable. A short list of citations flagged or pulled appears at the end.

I. Peer-reviewed papers

- Domingo and Dy Echo 2009 Domingo EJ, Dy Echo AV. Epidemiology, prevention and treatment of cervical cancer in the Philippines. *Journal of Gynecologic Oncology*. 2009,20(1):11-16. DOI: 10.3802/jgo.2009.20.1.11.
- Gale et al. 2013 Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*. 2013,13:117. DOI: 10.1186/1471-2288-13-117.
- Wong et al. 2016 Wong G, Westhorp G, Manzano A, Greenhalgh J, Jagosh J, Greenhalgh T. RAMESES II reporting standards for realist evaluations. *BMC Medicine*. 2016,14(1):96. DOI: 10.1186/s12916-016-0643-1.
- Joseph et al. 2023 Joseph J, Demke O, Ameyan L, Bitilinyu-Bango J, Bourgoin B, Diop M, Guèye B, Kama J, Lubega M, Madzima B, et al. Human papillomavirus testing using existing nucleic acid testing platforms to screen women for cervical cancer: implementation studies from five sub-Saharan African countries. *BMJ Open*. 2023,13:e065074. DOI: 10.1136/bmjopen-2022-065074. Note: this paper covers Malawi, Nigeria, Senegal, Uganda and Zimbabwe, it is used in this case study as comparative reference only.
- Kabue et al. 2023 Kabue M, Gauvreau CL, Dacene N, Bertram MM, Shissler T, Reis V, Dodo M, Garces A, Llave C, Dao B, Mohan D, Huang L. Understanding integrated HPV testing and treatment of pre-cancerous cervical cancer in Burkina Faso, Cote d'Ivoire, Guatemala and Philippines: study protocol. *Reproductive Health*. 2023,20(1):167. DOI: 10.1186/s12978-023-01696-8. PMID: 37957689.

II. WHO and international guidance

- WHO 2019 (thermal ablation) World Health Organization. WHO guidelines for the use of thermal ablation for cervical pre-cancer lesions. Geneva: WHO, 2019. ISBN: 978-92-4-155059-8.
- WHO 2020 (Global Strategy) World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: WHO, 2020. ISBN: 978-92-4-001410-7. (Source of the four per 100,000 incidence elimination threshold and the 90-70-90 targets.)
- WHO 2021 (screening guideline, 2nd ed.) World Health Organization. WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition. Geneva: WHO, 2021. ISBN: 978-92-4-003082-4.
- Demke, Maggiore and Bahuguna 2024 Demke O, Maggiore P, Bahuguna P. Affordability of Screen and Treat Tools for Cervical Cancer (Version 3, 31 July 2024), prepared as part of a programme supported by Unitaaid. Available at: <https://cdn.who.int/media/docs/default-source/cervical-cancer/hpv-pricing-slides-2024.pdf>.
- Ferlay et al. 2024 (GLOBOCAN) Ferlay J, Ervik M, Lam F, Laversanne M, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F. Global Cancer Observatory: Cancer Today. Lyon: International Agency for Research on Cancer, 2024. Philippines fact sheet, GLOBOCAN 2022 (v1.1, released 8 February 2024). Available at: <https://gco.iarc.who.int/today/>.

III. Methodology

Pawson and Tilley 1997 Pawson R, Tilley N. Realistic Evaluation. London: Sage Publications, 1997. ISBN: 9780761950097.

IV. Philippine policy instruments

Republic Act No. 7160 Local Government Code of the Philippines, 1991.

Republic Act No. 9184 Government Procurement Reform Act of the Philippines.

Republic Act No. 11215 An Act Institutionalizing a National Integrated Cancer Control Program and Appropriating Funds Therefor (National Integrated Cancer Control Act). Official Gazette of the Philippines, 14 February 2019. Available at: <https://www.officialgazette.gov.ph/>.

Republic Act No. 11223 An Act Instituting Universal Health Care for All Filipinos, Prescribing Reforms in the Health Care System, and Appropriating Funds Therefor (Universal Health Care Act). Official Gazette of the Republic of the Philippines, 20 February 2019. Available at: <https://www.officialgazette.gov.ph/>.

DoH AO 2005-0006 Department of Health, Administrative Order 2005-0006. Visual inspection with acetic acid as a primary screening modality for women aged 25 to 55.

DoH AO 2020-0001 Department of Health, Administrative Order 2020-0001. Consignment rules for foreign donations of health products.

DoH Department Circular 2021-034 Department of Health, Department Circular 2021-034, 9 August 2021. Direction to national and sub-national programme managers, project sites and the National TB Programme to support and coordinate with SUCCESS.

DoH Department Memorandum 2021-0393 Department of Health, Department Memorandum 2021-0393, 15 September 2021. Authorisation to use GeneXpert platforms in TB diagnostic laboratories for HPV DNA screening under SUCCESS.

DoH Department Personnel Order 2021-1637 Department of Health, Department Personnel Order 2021-1637. Creation of the Joint Project Implementation Committee (JPIC).

DoH Department Personnel Order 2021-2713 Department of Health, Department Personnel Order 2021-2713. Creation of the Implementation Research Advisory Group (IRAG).

Quezon City Ordinance 3285-2024 Quezon City Ordinance 3285-2024, Integrated Cancer Control Ordinance, August 2024.

V. Internal SUCCESS programme documents (not externally citable, full list in Annex B)

Internal SUCCESS documents (grant face sheet and Second Amendment, COP, Procurement Plan, Annual Reports 2020-2024, Final Draft Global SUCCESS Implementation Research Study Report 30 September 2024, C4P costing exercise, Quick Situational Assessment records, Health Facility Assessment outputs, Client Monitoring Tool exports, IRAG and JPIC meeting records, field stories) are listed in Annex B and were used to triangulate findings throughout this case study. These documents are not externally citable and are listed here for transparency only.

VI. Primary data sources (KIs and FGDs)

13 KI transcripts (16 named respondents) and 4 FGD transcripts (17 pseudonymous participants) collected April 2026 inform the body. Stakeholder details are listed in Annex A, pseudonymous FGD participants are referenced by category and site, not by name, per the consent protocol.

VII. Citations flagged or pulled

Pre-implementation HPV market price band The USD 80-USD 160 per-test private-sector HPV DNA price band cited in the Background section is from internal SUCCESS pre-implementation market scoping in Metro Manila (footnote 7). The figure is consistent with externally observable Philippine private-sector pricing in the relevant period: a standalone HPV DNA test offered by The Medical City and equivalent

tertiary private providers, HPV DNA add-on of roughly PHP 500-1,000 on top of a private Pap smear ranging from PHP 1,200-3,800, with bundled consultation and follow-up bringing the per-encounter cost into the USD 60-USD 200 range. The internal scoping band is retained as the source figure, external corroboration is partial rather than from a single published study, and the framing in the Background paragraph reflects that.

DoH-NTP GeneXpert installed base The figure of more than 500 GeneXpert instruments cited as the pre-SUCCESS Philippine installed base (footnote 8) is drawn from the SUCCESS COP (February 2021), with the underlying number recorded as 528 modules across 466 DoH-NTP sites. External corroboration from the Philippine Private Sector Diagnostics Consortium (Innovations in Research and Development, 2020-2021) records 488 facilities operating GeneXpert in the Philippines in the same period, of which approximately 4% were in the private sector. The two figures are consistent in magnitude and confirm that the "more than 500" framing is defensible. A single primary-source DoH-NTP publication aggregating these figures has not been located for this case study.

PhilHealth Circular numbers Specific PhilHealth Circular numbers for the YAKAP outpatient benefit package and Konsulta+ are not verified by this case study and are intentionally omitted. The benefit packages are referenced by name only across the document. The Q4 2026 timeline for the YAKAP update is sourced from the PhilHealth benefits team KII (the PhilHealth respondents), April 2026.

Annex B comparison table (Kenya / Malawi / Burkina Faso / Philippines) The pre-populated Philippines cell originally read 40,000 HPV tests. This case study has corrected the cell to 55,000 on the grounds that the Philippine Procurement Plan (October 2020) provided for 50,000 screening tests plus a 10% buffer (approximately 55,000 cartridges). If the column is intended to track tests used rather than tests procured, the figure should be approximately 31,498. Editorial decision flagged for sign-off.

