HEALTH PROGRAMS EVALUATIONS SHOW PROMISING RESULTS

In a step toward improving Uganda's healthcare delivery, the Ministry of Health hosted the National Dissemination Workshop of Program Evaluations held on 30th April 2025 at Speke Resort Munyonyo. The Acting Director General, Dr. Charles Olaro officially opened the event, which was organized by Makerere University School of Public Health's Monitoring and Evaluation Technical Support (MakSPH-METS) Program in collaboration with the Ministry's AIDS Control Program with support from the Centres for Disease Control (CDC).

The workshop brought together key stakeholders, partners, and policymakers to share findings and recommendations from the health program evaluations. Participants included officials from the Ministry of Health, international development partners (CDC, USAID, DOD, UNAIDS, WHO), Directors of Regional Referral Hospitals, implementing partners, District Health Officers, and representatives from academic institutions and media.

Four innovative healthcare models took centre stage during the discussions:

The Group-Antenatal Care Differentiated Service Delivery Model (G-ANC DSD) presented by Dr. Linda Kisaakye showed promising approaches to maternal care. The Young People and Adolescent Peer Support (YAPS) program evaluation revealed remarkable improvements in HIV care among young people, with implementation sites demonstrating ten times better retention rates after six months.

Dr. Bosco Ddamulira shared insights on the Integrated Community-Based HIV Service Delivery Model (ICSDM), while Dr. Mina Nakawuka presented on Non-Communicable Diseases (NCD) models. The fourth program showcased how leveraging Orphan and Vulnerable Children (OVC) platforms significantly improved TB case finding, preventive therapy, and treatment outcomes.

Following the presentations, a robust discussion addressed audience questions, focusing on implementation challenges and success factors. Recommendations highlighted the need for strengthened leadership and governance, improved reporting systems, and better integration of health services. Participants emphasized developing more efficient health education messaging and creating clear policies to guide national health programming.

The Ministry of Health committed to developing policy briefs based on the evaluation findings to influence future healthcare initiatives. The well-attended event was also broadcast online, extending its reach to virtual participants across the country.

As Uganda continues to face healthcare challenges, this dissemination workshop presented evidence-based insights that could transform service delivery and improve health outcomes nationwide.

The summaries of the evaluations are presented below:

THE REPUBLIC OF UGANDA

PEPFAR
U.S. President's Emergency Plan for AIDS Relief

U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

MONITORING AND EVALUATION TECHNICAL SUPPORT (METS) PROGRAM
MAKERERE UNIVERSITY

National Evaluation of Non-Communicable Diseases (Hypertension, Diabetes Mellitus, Obesity and Mental Health Disorders) Management among Persons Living with HIV in Uganda

Introduction

As HIV treatment programs expand and more people living with HIV (PLHIV) live longer on antiretroviral therapy, there is a growing concern about non-communicable diseases (NCDs) affecting the population. The most common NCDs among adult PLHIV include hypertension (HTN), diabetes mellitus (DM), obesity, and mental health. In 2022, the Uganda HIV guidelines were revised to integrate the management of NCDs into HIV care. This evaluation sought to describe the burden, predictors, and outcomes of NCDs among PLHIV in Uganda, and assess the capacity of the Ugandan health system to offer NCDs services to PLHIV.

Methods

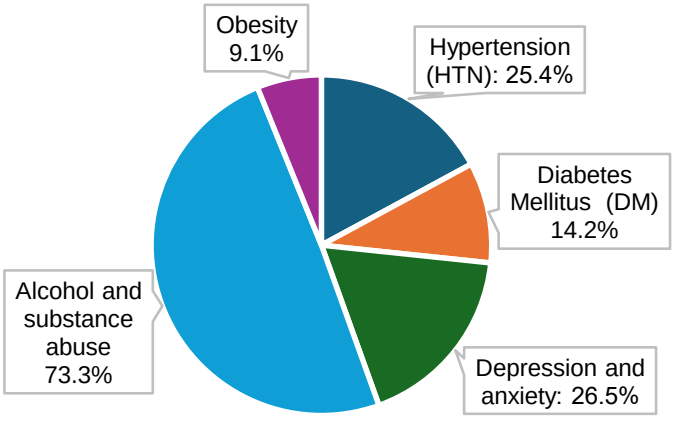
This was a cross-sectional assessment using PLHIV records in the routinely collected health facility data to determine the prevalence, treatment outcomes and management of key NCDs among PLHIV aged ≥ 15 years. The evaluation was conducted among 7,872 PLHIV selected from 160 systematically sampled health facilities across 15 health regions of the country. Data on NCDs among PLHIV were abstracted from health facility records. The assessment took place between August and September 2024.

Results

Objective 1. Prevalence of NCDs among PLHIV

NCD screening among PLHIV was moderately high for obesity (70%), low for HTN (57.7%), but very low for DM (5.6%) and depression and anxiety (2.7%). Among the PLHIV screened, alcohol and substance abuse were the most prevalent (73.3%); followed by depression and anxiety (26.5%), hypertension (25.3%), diabetes mellitus (14.2%), and obesity (9.1%) (Figure 1)

Prevalence of NCDs among PLHIV



Objective 2. Factors associated with NCDs among PLHIV

Demographic and clinical factors showed significant associations with non-communicable diseases. Hypertension was associated with the male gender, aged ≥55 years, residing in urban areas, with advanced HIV disease. Diabetes mellitus was more prevalent among urban residents and those with low CD4 counts. For mental health conditions, depression and anxiety were associated with urban residence, intermediate ART duration (6-12 months), low CD4 counts, and treatment with AZT or DTG-based regimens. Obesity was more common among females and urban residents (Table 1).

Table 1. Factors associated with NCDs among PLHIV

NCD Condition	Predictors with significance levels of <0.05%
Hypertension	Men Older age (>=55) Urban areas Low baseline CD4 count WHO stage IV (Advanced HIV disease).
Diabetes mellitus	Urban areas Low baseline CD4 count
Depression and anxiety	Urban area Duration on ART (6-12 months) CD4 (200-500 counts) AZT baseline regimen DTG baseline regimen WHO clinical stage III
Obesity	Female Duration on ART (6+ months) Urban residence

Objective 3: HIV outcomes among PLHIV with NCDs

HIV viral load monitoring achieved high coverage (>96%) across all comorbidity groups. Viral suppression rates varied, with the highest levels observed among PLHIV with obesity (95.9%) and lowest among those with anxiety and depression (90.7%). Retention in care remained a challenge across all groups, particularly among PLHIV with alcohol and substance use disorders, where retention dropped to 57.9%. Advanced HIV disease was relatively uncommon (2.5-7.0%) in most groups, though highest among diabetic patients. Tuberculosis comorbidity was most prevalent among those with substance and alcohol abuse (15.8%). Both TPT initiation and completion rates were high across most comorbidity groups. (Table 2)

Table 2. HIV outcomes among PLHIV with NCDs

Outcome	Non-communicable disease (NCD)				
	Hypertension	Diabetes mellitus	Obesity	Anxiety and depression	Substance and alcohol abuse
Viral load coverage (%)	98.2	98.3	97.4	97.3	100
Viral load suppression (%)	94.9	93.1	95.9	90.7	90.9
Retention in care (%)	80.5	77.4	75.7	76.4	57.9
Advanced HIV disease (%)	2.9	7.0	2.9	3.2	3.5
TB comorbidity (%)	3.7	4.8	2.8	7.2	15.8
TPT Initiation (%)	96.6	93.3	93.8	94.2	96.5
TPT Completion (%)	91.0	90.3	90.3	86.7	86.0
Presence of multi-morbidity (%)	44.9	98.2	79.1	98.0	91.5

Objective 4: Health-system-related strengths, opportunities, and challenges in the provision of NCDs services among PLHIV in Uganda

The health system factors considered included training of health workers, availability of NCD screening tools and services including functionality of equipment for screening NCDs and availability of medicines for management of NCDs. Training of health providers on integrated HIV and NCD care was generally low and varied by level of care and region. NCD screening tools and services were generally available but missing in Acholi, Ankole and Bukedi subregions

Medicines for management of NCDs (hypertension and diabetes mellitus) were available in >60% of health facilities. For example, Nifedipine and Metformin which were part of the old Essential Medicines List (EML) were available in over 65% of health fcailities. However, medications that were introduced in the new EML of 2023 such as Amlodipine were available in <30% of health facilities (Table 3)

Table 3. Availability of medicines for treatment of hypertension and diabetes mellitus

Variable	Category	Amlodipine		Nifedipine		Metformin	
		Facilities assessed (N)	Drug always available (%)	Facilities assessed (N)	Drug always available (%)	Facilities assessed (N)	Drug always available (%)
Level of care	General Hospital	11	55	11	90	11	73
	Health center II	1	0	1	0	1	0
	Health center III	105	22	122	53	119	71
	Health center IV	21	48	22	64	21	76
	NRH	1	0	1	100	1	0
	RRH	2	0	2	0	2	0
	Specialized Clinics	1	0	1	100	1	100
Health Facility Region	Acholi	9	0	9	56	9	100
	Ankole	13	31	14	57	13	69
	Bunyoro	5	0	8	52	8	50
	Bugisu	8	13	8	38	8	75
	Bukedi	8	13	8	66	8	75
	Busoga	9	0	9	22	9	56
	Kampala	14	79	15	53	13	85
	Karamoja	8	13	8	50	8	92
	Kigezi	8	75	8	92	8	91
	Lango	10	20	10	70	10	30
	North Central	17	18	17	56	19	58
	South Central	11	36	16	50	15	51
	Teso	8	13	8	25	8	75
	Tooro	6	50	11	91	12	100
	West Nile	8	25	8	93	8	63

Conclusion and recommendations

The findings from this evaluation build on existing evidence revealing a high prevalence of NCDs among PLHIV and underscore the critical need for integrated care. Moreover, the health system readiness assessment highlighted that many health facilities lacked the necessary screening tools, trained personnel, and commodities required to provide integrated care. Stakeholders and policy makers are encouraged to consider strengthening of integrated care for NCDs and scaling up the services nationally.

ACKNOWLEDGEMENTS

- Ministry of Health
- USG/PEPFAR
- CDC Staff
- All investigators
- Implementing Partners
- Data Collection Teams
- District Health Officers
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MONITORING AND EVALUATION TECHNICAL SUPPORT (METS) PROGRAM
MAKERERE UNIVERSITY

Evaluation of the Uganda National PMTCT Group Antenatal Care/Postnatal Care Service Delivery Model, 2021-2023

Introduction

The Uganda Ministry of Health (MoH), together with PEPFAR and other partners adopted group antenatal/postnatal (G-ANC/PNC) differentiated service delivery (DSD) model of care to improve access to and utilization of sexual, reproductive, maternal and child health services including prevention of mother-to-child HIV transmission (PMTCT) by pregnant and breastfeeding adolescent girls and young women (AGYW). The model was piloted at 33 sites, from June 2018 through June 2019 and later scaled up nationally to more than 685 health facilities. An evaluation to measure uptake, effectiveness, enablers, barriers, and cost of implementing the model to inform further investment and scale-up was conducted.

Methods

The evaluation adopted a mixed methods design that included quantitative and qualitative data collection approaches. To determine the uptake and effectiveness of the model, conducted was a retrospective cohort analysis of AGYW data for July-December 2021 abstracted from records of 144 sampled health facilities (72 intervention and 72 control facilities). Uptake of the G-ANC/PNC model was measured as the percentage of AGYW receiving ANC services who enrolled for the model. The effectiveness of the model was determined by comparing maternal and infant outcomes among AGYW enrolled in the model (intervention group) and those not enrolled (control group)

To determine the barriers and enablers of the G-ANC/PNC model, a total of 43 Key Informant Interviews (KIIs) were conducted with representatives from the MoH (05), Implementing Partners (06), District Health Officers (6), Health facility G-ANC focal persons (13) and G-ANC/PNC peer mothers (13). Additionally, 26 Focus Group Discussions (FGDs) with PBF AGYW enrolled in G-ANC/PNC for at least six months were conducted.

To estimate the cost of implementing the model, 25 health facilities were purposively selected from the 72 facilities that were implementing the model. Bottom-up and top-down approaches were used to gather all key G-ANC/PNC related cost data over a 12-month period. Data abstraction, interviews and physical counts were done to obtain financial and economic data from the health facilities.

Results

Objective 1: Uptake of G-ANC/PNC model

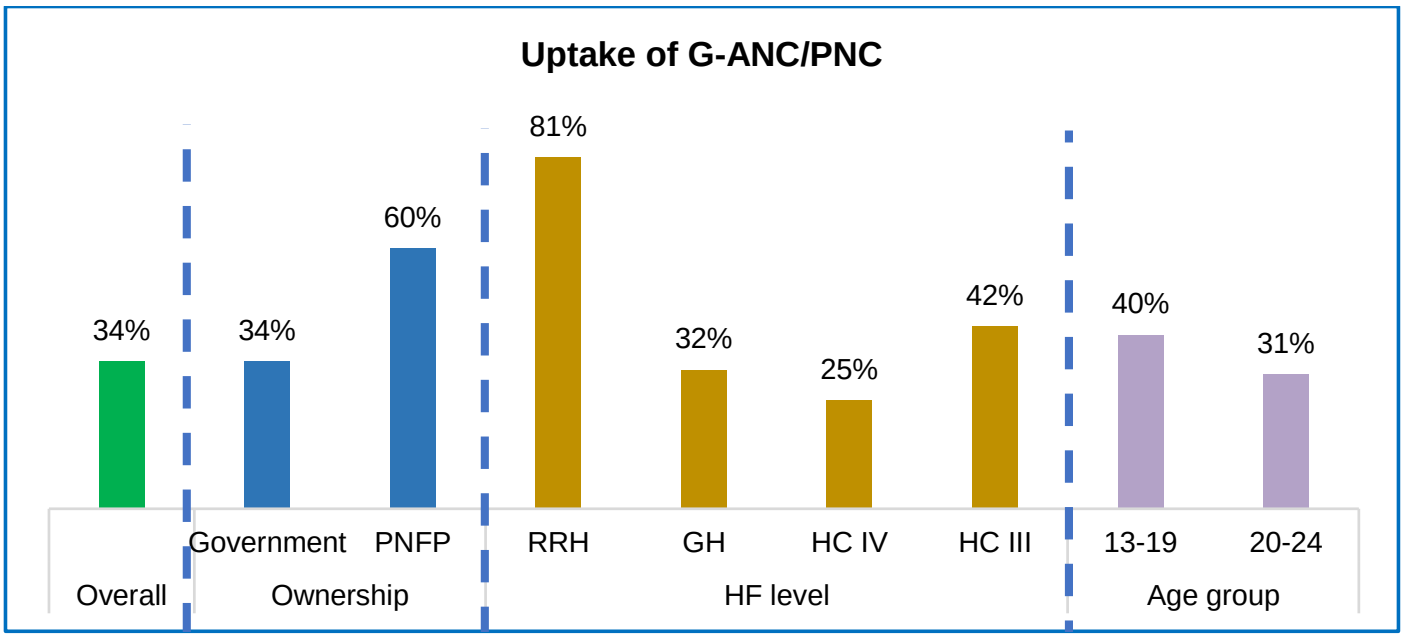


Figure 1. Percentage of AGYW enrolled in the G-ANC/PNC model

Overall, uptake of the G-ANC/PNC DSD model of care was 34%. Uptake of the model varied by age group, health facility ownership and level. Uptake was higher among AGYW aged 13-19 years (40%); among those attending PNFP (60%) and among AGYW attending care at RRHs (81%).

Objective 2: Effectiveness of the G-ANC/PNC DSD model

The model was effective in increasing maternal HIV retesting, health facility deliveries, PNC attendance and uptake of modern contraception. AGYW who enrolled in the G-ANC/PNC model were: five times more likely to retest for HIV during pregnancy; twice more likely to deliver from a health facility where they attended their first ANC visit; three times more likely to attend PNC at 6 weeks; four times more likely to attend PNC at 6 months and four times more likely to use modern contraception compared to their counterparts who did not (Table 1).

Table 1. Effectiveness of the G-ANC/PNC DSD model

AGYW enrolment	Adjusted		
	IRR	p-value	95% CI
Maternal HIV retesting			
Routine ANC services	1		
G-ANC/PNC model	4.85	0.000	4.18-5.64
Delivery at health facility			
Routine ANC services	1		
G-ANC/PNC model	1.93	0.000	1.77-2.11
PNC attendance at 6 weeks			
Routine ANC services	1		
G-ANC/PNC model	3.50	0.000	2.98-4.12
PNC attendance at 6 months			
Routine ANC services	1		
G-ANC/PNC model	4.10	0.00	3.32-5.06
Uptake of modern contraception			
Routine ANC services	1		
G-ANC/PNC model	3.66	0.000	3.02-4.44

Objective 3. Enablers and barriers of the G-ANC/PNC model

Category	Key themes
Benefits of G-ANC/PNC program	• Builds confidence among pregnant and breastfeeding AGYW • Improved relationships between the health workers and peer mothers • Improved knowledge and utilization of MNCH services among AGYW • Improved capacity of the health work force • Peer social support improves the mental wellbeing of the AGYW
Enablers	• Friendly and well-trained health workers and peer mothers at the facilities • Improved human resource capacity (numbers and skills) at health facilities • Telephone calls to AGYW by the peer mothers for appointment reminders • Availability of dedicated clinic days or sessions for AGYWs and their active recruitment • Availability of skills building and education options for AGYW • Support supervision is provided by MoH and the implementing partners, • Availability of HMIS tools for both G-ANC/PNC and routine ANC • Linkage of AGYW to skilling organizations and service packages
Barriers	**Health care workers' perspectives** • Delays at the facility for both the health care workers and AGYW • Limited space at the facilities for group activities • Delays to receive payment for the peer mothers • Challenges in following-up the AGYW due to lack of dedicated phones for the program, inadequate airtime, long distances, etc. • Failure of the AGYWs to keep appointments for group activities • High staff turnovers, resulting in low number of health workers • Stigma among AGYW • Negative attitude of some health workers towards PBF AGYW. • Limited funding for the G-ANC/PNC program

	AGYW perspectives
	• Long waiting time at the health facility to receive G-ANC/PNC services • Lack of spousal support and/or refusal to join G-ANC/PNC • Fear of the PBF AGYW being stigmatized due to lack of privacy • Negative attitude and behavior of some health workers towards AGYW • Lack of awareness and interest among some AGYW to attend G-ANC/PNC • Transport challenges to access the health facilities by some AGYW

Objective 4. Cost of implementing the G-ANC/PNC model

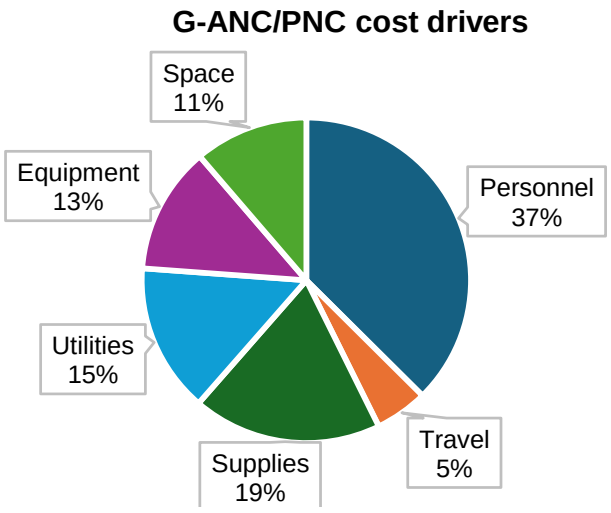
The estimated total annual cost of implementing G-ANC/PNC services at 25 health facilities was $71,386, with an average of over 1,000 beneficiaries per facility. The largest cost driver was personnel time ($26,766), accounting for 37.5% of the total cost, followed by G-ANC/PNC related supplies ($13,738, 18.6%) and utilities ($10,574, 14.8%). The annual unit cost per beneficiary was estimated at $2.7 (Table 2)

Table 2. Cost of implementing the G-ANC/PNC model

Cost centers	Total annual cost (USD)
Personnel	$26,766 (37.5%)
Travel	$3,738 (5.2%)
Supplies	$13,296 (18.6%)
Utilities	$10,574 (14.8%)
Equipment	$8,982 (12.6%)
Space	$8,030 (11.2%)
TOTAL	$71,386
Unit cost per beneficiary	**$2.70**

Conclusions and recommendations

Although uptake of the G-ANC/PNC DSD model is low, there are significant benefits to maternal outcomes in the continuum of care. Future programming should address the identified barriers while scaling up the enabling factors to improve uptake of the model more especially among the younger adolescents.



ACKNOWLEDGEMENTS

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THE REPUBLIC OF UGANDA

PEPFAR
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CDC
U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

MONITORING AND EVALUATION TECHNICAL SUPPORT (METS) PROGRAM
MAKERERE UNIVERSITY

Evaluation of the Integrated Community-Based HIV Service Delivery Model (ICSDM)in Uganda: Analysis of outcomes, experiences, and cost

Background

In 2022, the Ministry of Health developed the Integrated Community HIV Services Delivery Model (ICSDM) to enhance HIV epidemic control at community level by addressing the determinants of new infections and advanced HIV disease. The model integrates service delivery at community and household levels to reach the most vulnerable individuals and promote person-centered care and efficiencies. In 2023, ICSDM was implemented in four regions of Uganda namely, Acholi, Mubende, Rwenzori, and Kayunga-Mukono. This evaluation examined the ICSDM implementation fidelity, outputs and outcomes, facilitators and challenges, as well as the implementation cost.

Methods

The evaluation adopted a mixed methods design that included quantitative and qualitative data collection approaches. Data were collected between October and November 2024 at 25 randomly sampled health facilities in the four health regions where the model was implemented. Quantitative data were abstracted from health facility records of PLHIV who enrolled in the model from October 2023 through May 2024. In addition, a total of 711 PLHIV receiving care under the model were interviewed. Qualitative data was collected through 27 key informant interviews with policy makers, health managers and Implementing Partners (IPs), and 34 in-depth interviews with the beneficiaries of the model. Cost evaluation used the bottom-up and top-down approaches to gather all key ICSDM related cost data over a 12-months period. Financial and economic ICSDM cost data were obtained at health facilities. Additional cost data were obtained from the Ministry of Health and IPs who supported ICSDM related activities at the health facility level.

Results

Objective 1: ICSDM implementation fidelity

Generally, in all the four regions, the ICSDM implementation process was well aligned with the national guidelines and all the key steps were followed (Table 1).

Table 1. Implementation of the ICSDM core activities by the region

No	Description of activity	Region			
		ACH	MDE	MKY	RWZ
1.	Training of health care providers in delivery of ICSDM services	Yes	Yes	Yes	Yes
2.	Line Listing and mapping of PLHIV with non-suppressed VL	Yes	Yes	Yes	Yes
3.	Enrolment and attachment of PLHIV to community health worker	Yes	Yes	Yes	Yes
4.	Directly observed therapy (DOTs) at home	Yes	Yes	Yes	Yes
5.	Home-based/community support to PLHIV and family members	Yes	Yes	Yes	Yes

ACH=Acholi, MBE=Mubende, MKY= Mukono-Kayunga, RWE= Rwenzori

Objective 2. ICSDM implementation outputs and outcomes

Outputs: About 8.0% of PLHIV active in care at 25 health facilities had unsuppressed viral load (VL), the majority being in Acholi region (13.3%). Overall, 34.4% of the PLHIV with unsuppressed VL were enrolled in ICSDM, most of whom were from Rwenzori region (64.4%). Overall, more than 90% of the PLHIV with unsuppressed VL were attached to a community health worker (Table 2).

Table 2. Implementation of the ICSDM core activities by region

variable	Region				Overall
	ACH	MDE	MKY	RWZ	
Number of health facilities sampled	**N=6**	**N=5**	**N=8**	**N=6**	**N=25**
Number of PLHIV who are active in care	9,946	13,896	16,436	9,944	50,222
Number and percentage of PLHIV active in care, not virally suppressed	1,323 (13.3%)	767 (5.5%)	1,077 (6.6%)	868 (8.7%)	4,035 (8.0%)
Number and percentage of PLHIV not virally suppressed enrolled in ICSDM	428 (32.4%)	145 (18.9%)	255 (23.7%)	559 (64.4%)	1,387 (34.4%)
Number and percentage of PLHIV not virally suppressed enrolled in other community models	126 (9.5%)	76 (9.9%)	42 (3.9%)	90 (10.4%)	334 (8.3%)
Number of PLHIV not virally suppressed enrolled in facility models	769 (58.1)	546 (71.2)	780 (72.4)	219 (25.2)	2314 (57.3)

ACH=Acholi, MBE=Mubende, MKY= Mukono-Kayunga, RWE= Rwenzori region

Outcomes: Overall, viral load re-suppression among PLHIV in the ICSDM was 74.5 %. Viral re-suppression levels were more than 50% across all regions, highest in Mubende (93.8%) and lowest in Acholi region (57.7%). Viral re-suppression was higher among PLHIV attending care in PNFP facilities (90.0%) (Table 3).

Table 3 : Viral load re-suppression rate among PLHIV enrolled in the model

Characteristics	Percent re-suppressed	Percent unsuppressed
Total	**74.5**	**24.5**
Region		
Acholi	47.8	52.2
Mubende	90.5	9.5
Mukono-Kayunga	78.2	21.8
Rwenzori	91.5	8.5
Health facility level		
Hospital	77.5	22.5
HCIV	74.4	25.6
HCIII	71.4	28.6
Ownership		
Government	74.3	25.7
PNF/NGO/Mission	90.0	10.0
Sex		
Male	75.0	25.0
Female	74.1	25.9
Age group		
10-24	66.5	33.5
25-49	76.9	23.1
Socioeconomic status		
Lowest	68.5	31.5
Middle	72.6	27.4
Highest	84.2	15.8

Facilitators and Challenges of Implementing the ICSD Model	
Facilitators	• Home-based services saved time and transport costs for patients • Strong bonds formed between healthcare providers and patients • Longer provider-client contact time compared to facility services • Extensive counseling during home visits • High client satisfaction with ICSDM services (over 90%)

Facilitators and Challenges of Implementing the ICSD Model	
Challenges	• Inadequate and delayed facilitation for community health workers • Limited logistical support for health workers at health facilities • Long distances to reach patients in remote areas • Few healthcare providers trained on ICSDM • HIV-related stigma causing some patients to decline home visits • Limited knowledge of healthcare providers on ICSDM • stigma and discrimination towards individuals PLHIV

Costing

The cost of implementing the ICSD Model in the 25 health facilities varied across regions with key cost drivers being human resource (60.8%) as the highest, and utilities cost (1.1%) as the least. Mubende region followed by Acholi region had a higher annual mean cost per facility implementing ICSDM services. The total annual cost for implementing ICSDM was $79,395 and the unit cost per beneficiary was estimated at $57.20.

Conclusion and Recommendations

The findings show that the model aligns with national ICSD guidelines, and the adaptations offer solutions to implementation challenges. Significantly, many PLHIV with non-suppressed viral loads enrolled in the ICSDM achieve re-suppression.

Based on the findings, we recommend expanding training for community health workers, investigating facility adaptations to the ICSDM, studying its effectiveness compared to other models for re-suppressing people living with HIV (PLHIV) with unsuppressed viral loads, and assessing its cost-effectiveness for both short-term and long-term outcomes.

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- Ministry of Health
- USG/PEPFAR
- CDC Staff
- All investigators
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THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Evaluation of integrating Comprehensive TB services into OVC programs in Rwenzori region in Midwestern Uganda (Oct 2021-Sept 2023)

INTRODUCTION

National TB programs often miss paediatric cases due to diagnostic limitations and healthcare worker capacity. Orphans and Vulnerable Children (OVC), particularly those affected by HIV, face higher TB risks from malnutrition, poor ventilation, overcrowding, and inadequate support. Despite limited research on TB case-finding among these children, OVC programs have established community-based approaches for vulnerability assessment and service linkage. We integrated comprehensive TB services into these existing platforms to evaluate impacts on case finding and treatment outcomes.

OBJECTIVES

General Objective: Evaluate the effect of integrating comprehensive TB/HIV services into OVC programs on TB case finding and outcomes in Rwenzori region.

Specific objectives:

1) Compare TB case finding and treatment outcomes before and after implementing accelerated TB-OVC integrated services.
2) Evaluate contextual factors affecting implementation of the accelerated TB-OVC integration services by civil society organizations' (CSO) staff.

INTERVENTION

We supported CSOs to conduct quarterly screening of all OVC household members on top of the core OVC services package as summarised below

INTERVENTION

BASELINE: Core OVC Package (October 2021 – September 2022)

- **TB diagnosis depended on Self-reporting of symptoms during a home visit by a Para social worker (PSW) or presumption during a health facility visit.**
- Suboptimal contact tracing and tracking of referrals and linkages.
- More emphasis on ART counselling support.

INTERVENTION: Integrated TB Services (October 2022 – September 2023)

- **Introduced Quarterly screening of all OVC household members by CSO staff – social and PSWs).**
  - Training was conducted using the community actors training curriculum and guide from MoH
  - Lay workers steered in-home specimen collection, accompanied presumptive TB patients to the health facility, and tracked their diagnostic and treatment cascades.
- Contact tracing among household members.
- Intensified HIV and TB treatment counselling support

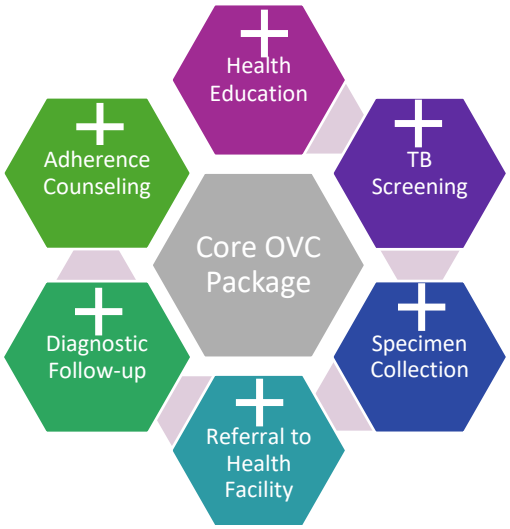
Figure 1: Illustrative summary services provided in addition to the Core OVC package

Baseline
Period: October 2021 – September 2022

Core OVC Package:

1. Child care and protection – safe
2. Education and development - schooled
3. Child survival and health
4. Economic strengthening

Intervention
Period: October 2022 – September 2023



METHODS

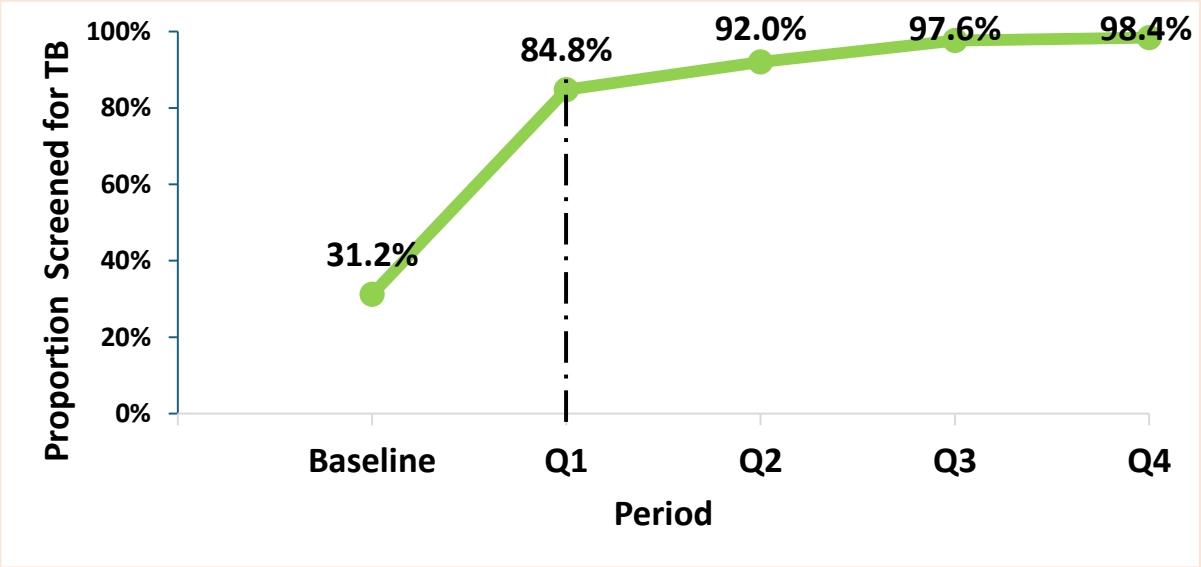
Mixed methods were used: cross-sectional studies to compare pre/post-intervention outcomes and key informant interviews to assess implementation. TB case detection, screening rates, diagnostic completion, and treatment outcomes were compared between baseline (17,564 OVC household members, Oct 2021-Sept 2022) and intervention periods (21,536 members, Oct 2022-Sept 2023). Implementation factors were evaluated through 23 in-depth interviews with health workers, CSO staff, and parasocial workers, with data thematically analyzed using the Atlas.ti software.

RESULTS

Objective 1: Comparing TB case finding and treatment outcomes before and after implementing accelerated TB-OVC integrated services

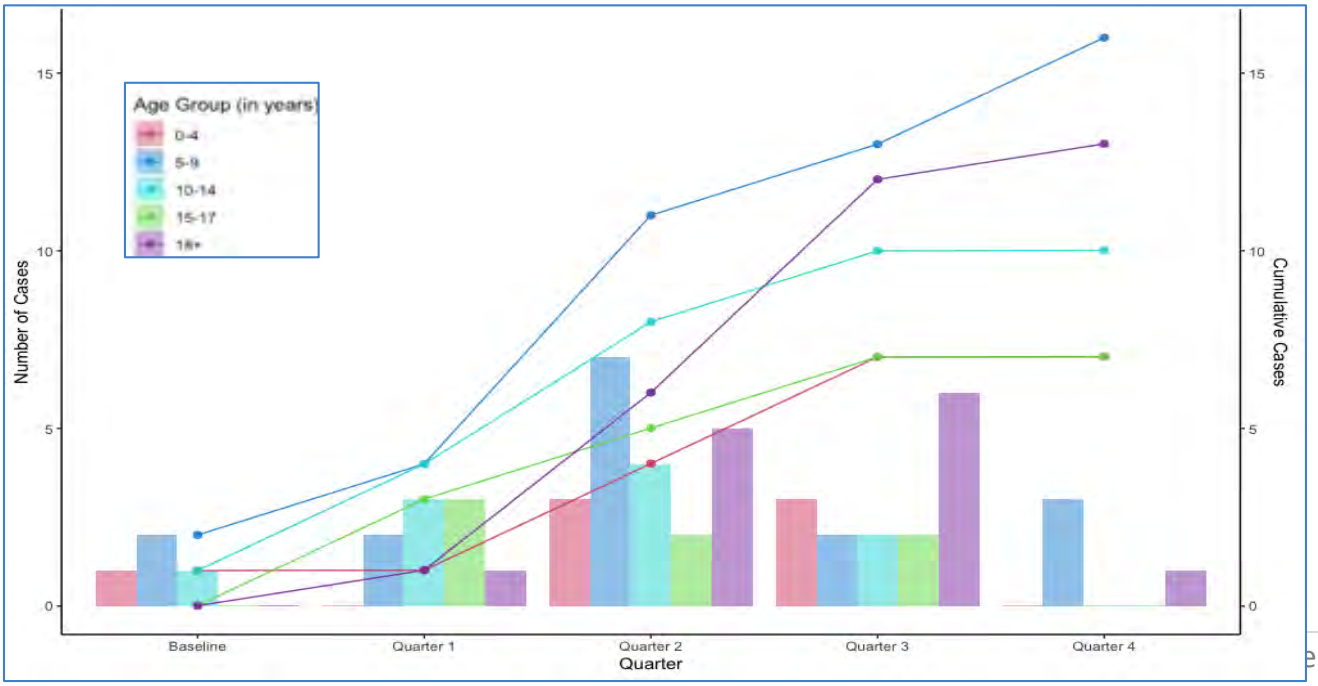
Screening: The project registered a 3-fold increase in screening of household members for TB during the intervention period compared to the baseline as shown in figure 2 below:

Figure 2: TB screening coverage among OVC household members before and during services integration



Age specific trends in TB case finding: A total of 49 TB cases were diagnosed during the intervention compared to 4 TB cases at baseline. Unlike at the baseline where all TB cases were among children under 18 years of age, 13/49 (16.5%) of the TB cases during the intervention were adults 18 years and above. Case finding reached a peak in the second quarter of implementation and then declined over the subsequent period.

Figure 3: Age specific trends in TB case finding



TB diagnosis and treatment cascade: The intervention more than tripled the proportion of household members screened for TB threefold (97.8% during the intervention compared to 31.2% at baseline); and increased by more than 10 times the presumptive TB cases that were investigated and a diagnosis made. Linkage to treatment and treatment completion were excellent (100%) throughout the intervention.

Objective 2: Evaluate contextual factors affecting implementation of the accelerated TB-OVC integration services by CSO staff.

Overall perceptions of impact: All staff cadres overwhelmingly perceived the intervention as successful in:

- Finding more TB cases
- Encouraging Adherence
- Improving TB-specific knowledge
- Decreasing Stigma

Success, feasibility and acceptability of the intervention: The main themes regarding the success of the intervention were as illustrated below:

- Pre-existing relationships & trust critical to acceptance
- Clear roles & responsibilities ensure linkage to care
- Health education reduced stigma & encouraged
- health-seeking
- Accompanied referral/home specimen collection improved linkage to care
- Additional support (extra pay, transport, supplies & training) required to sustain additional

CONCLUSIONS AND RECOMMENDATIONS

OVC services are an important platform for TB case finding in children and its benefits extend to adults within their households. Empowered community structures and positive relations played a critical role in the success of integrating TB services into OVC program. Future public health programming should consider streamlining community structures and building their capacity when integrating OVC/TB services.

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- Ministry of Health
- USG/PEPFAR
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- All investigators
- Implementing Partners
- Data Collection Teams
- District Health Officers
- Health Care Workers
- **Participants for the evaluation**
- Added data collection teams

THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Outcome Evaluation of the Young People and Adolescent Peer Support (YAPS) Program Implementation in Uganda

Introduction

Adolescents and young people (AYP) are one of the most critical demographic in Uganda's efforts to end HIV by 2030. Despite global progress on all HIV indicators, they continue to consistently lag behind on every key HIV indicator. In 2019, Uganda adopted the WHO recommendation on the use of peer-led models for lagging groups and implemented the Young and Adolescent Peer Supporters (YAPS) model. Between November and December 2024, this model was evaluated to assess: the fidelity to program implementation, the effect of the program on key indicators in the treatment cascade for adolescents and young people living with HIV (AYPLHIV), the perspectives of the programs' key stakeholders and the cost of implementing such a model

Methods

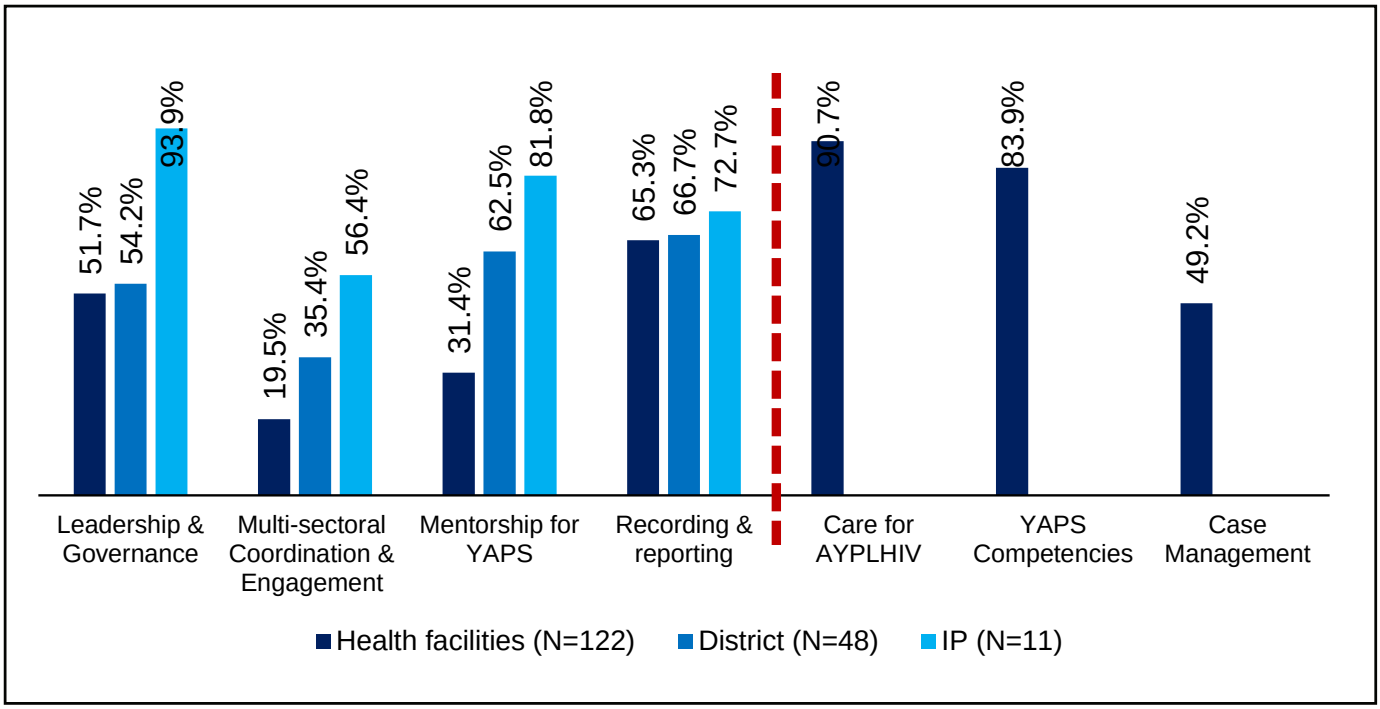
A mixed-methods comparative design examined both quantitative and qualitative aspects. The study sampled 122 health facilities with two-year YAPS program implementation history by December 2023, plus 122 non-YAPS facilities from the same 14 regions. Data collection involved checklists and abstraction to assess program fidelity and effects on the AYPLHIV clinical cascade. Stakeholder perspectives were gathered through key informant interviews (eight national stakeholders, 14 district officials, two regional implementing partners), 14 focus group discussions with YAPS, and 56 in-depth interviews with AYPLHIVs. The analysis included program setup and implementation costs using government and implementing partner data.

Results

Objective 1. Implementation to fidelity of the YAPS model

This was highest at implementing partner level, scoring above 70% across standards, and the lowest at the health facility level with suboptimal scores (<50%) across most standards.

Figure 1: Performance on different fidelity measures by level



Objective 2. Effect of the YAPS model on the treatment cascade for AYPLHIV

We observed 10 times better 6 months retention in care in the implementation sites. AYPLHIV in stable differentiated service delivery (DSD) model in the YAPS implementing facilities had four times better viral load testing compared to the non-YAPS implementing facilities. Additionally, AYPLHIV in YAPS implementing facilities were twice as likely to be virally suppressed than those in the control.

Table 1. Effect of the YAPS model on Viral Load Suppression among AYPLHIV

Characteristic	6 Months OR (95% CI)	12 Months OR (95% CI)	18 Months OR (95% CI)	24 Months OR (95% CI)
YAPS site	2.17 (1.07–4.39)	1.65 (0.72–3.79)	1.16 (0.54–2.48)	0.94 (0.36–2.46)
Region				
Acholi	0.88 (0.18–4.29)	3.27 (0.40–26.74)	2.69 (0.33–21.73)	1.14 (0.13–10.26)
Ankole-Kigezi	0.99 (0.12–8.15)	1.40 (0.08–24.64)	1.21 (0.07–21.25)	1.58 (0.09–28.29)
Bugisu-Bukedi	0.18 (0.03–1.15)	0.83 (0.09–8.05)	0.41 (0.04–4.20)	0.36 (0.03–4.27)
Lango	0.66 (0.10–4.22)	1.06 (0.09–13.20)	3.51 (0.37–32.99)	
North Central	3.72 (0.80–17.20)	3.78 (0.46–30.94)	1.96 (0.24–16.07)	1.17 (0.13–10.26)
South Central	0.79 (0.16–4.06)	1.68 (0.19–14.81)	0.76 (0.08–7.33)	0.96 (0.10–9.46)
West Nile	1.22 (0.24–6.19)	1.77 (0.19–16.48)	1.25 (0.14–11.34)	0.90 (0.08–9.98)
Health facility level				
Health Centre	**0.58 (0.34–0.98)**	1.06 (0.55–2.04)	0.71 (0.38–1.32)	1.44 (0.54–3.86)
Age group				
20–24 years	1.04 (0.61–1.77)	**0.44 (0.24–0.81)**	1.36 (0.70–2.67)	1.82 (0.64–5.13)
Sex				
Male	1.74 (0.94–3.21)	1.75 (0.85–3.63)	1.26 (0.61–2.60)	0.19 (0.02–1.48)
Marital Status				
Not Married	0.73 (0.45–1.20)	0.76 (0.41–1.41)	0.72 (0.40–1.28)	1.00 (0.44–2.27)
Baseline DSD model				
Stable model	1.11 (0.39–3.19)	0.37 (0.05–3.01)	3.00 (1.01–8.91)	4.87 (1.29–18.39)

Perspectives of YAPS and AYPLHIV on the benefits of the model

YAPS and AYPLHIV appreciated the role of the program in stigma reduction, improved disclosure, improved emotional resilience and self-confidence better treatment and clinic appointment adherence which all led to better HIV treatment outcomes.

Figure 2. Perspectives of YAPS and AYPLHIV

Benefits to YAPS	Benefits to AYPLHIV
• Improved ART adherence • Improved viral load suppression • Improved viral monitoring and awareness • Improved ability to manage and cope with stigma [internalized (self) & external (community)] • Easier disclosure • Improved physical well-being after engaging with the YAPS program • Reduced social and economic vulnerabilities • Improved self-confidence and ability to support others • Positive family dynamics and relationships.	• Improved ability to manage and cope with self-stigma • Improved disclosure readiness and ability to manage disclosure reactions • Improved ability to manage HIV status • Improved emotional resilience • Reduced social and economic vulnerabilities • Improved ART adherence • Improved health • Improved viral load suppression • Improved viral monitoring and awareness

Objective 3. Cost analysis for implementing the YAPS model

The cost of reaching one AYPLHIV was USD 1,386 (UGX 5,058,900). The cost of facilitating a YAP peer was USD 1,401 (UGX 5,109,750) in the initial year and USD 1,047 (UGX 3,820,000) per annum, in each of the subsequent years.

Table 2. Overall Cost of implementing the YAPS model

	USD	UGX
• Estimated overall cost of implementing the YAPS program for the four-year period	68,591,754	250,359,902,100
• Average annual cost of implementation	17,147,939	62,589,975,525
• Average cost of reaching one AYPHLIV per annum	1,386	5,058,900
• Estimated costs of facilitating a YAPS peer – initial year	1,401	5,109,750
• Estimated costs of facilitating a YAPS peer – subsequent year	1,047	3,820,000
• Cost drivers [of overall cost]	• Training - 33% • personnel - 19%	
• Cost by level [of the overall costs]	• community 41%, • health facility level 35% • regional at 3% & • national at 7%	

Conclusions

The YAPS program improved outcomes of AYLHIV across the 95-95-95 cascade, however, the improvement was not uniform across all AYLHIV. The YAPS beneficiaries appreciated the role of the program in stigma reduction, improved emotional resilience and self-confidence, improved disclosure, better treatment and clinic appointment adherence which all led to better HIV treatment outcomes. Challenges such as suboptimal case management by the YAPS, multi-sectoral coordination gaps and financial constraints hindered full realization of program goals.

Recommendations

Integration of the YAPS program into district level multi-sectoral coordination structures, and an institutionalized YAPS program review at district level to identify and address challenges timely would strengthen the YAPS program and accentuate the achievement of its goals. There is need for development of a minimum costed package for YAPS implementation to accentuate feasibility of countrywide implementation.

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