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Rwanda Biomedical Centre
Healthy People, Wealthy Nation

RWANDA NGOs FORUM ON HIV/AIDS & HEALTH PROMOTION

THE GLOBAL FUND

TOWARDS AN INTEGRATED HIV, TUBERCULOSIS, AND MALARIA: COMMUNITY LED MONITORING (ICLM) MODEL FOR RWANDA

Pilot Phase Implementation Report: "Findings and Recommendations from **Gasabo, Rwamagana**, and **Bugesera Districts**"

Kigali, Rwanda
August 2025

ACRONYMS

AAAQ	Availability, Accessibility, Acceptability, and Quality
ACT	Artemisinin-based Combination Therapy
AIDS	Acquired Immuno Deficiency Syndrome
AGYW	Adolescent Girls And Young Women
ARV	Anti-Retroviral Drug
CLM	Community-Led Monitoring
cEMR	Community Electronic Medical Record (System)
CHW	Community Health Workers
CSO	Civil Society Organizations
FSW	Female Sex Workers
HMIS	Health Management Information System
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counseling
iCLM	Integrated Community Led Monitoring
IEC	Information, Education And Communication
IRS	Indoor Residual Spraying
KP	Key Populations
KVP	Key And Vulnerable Populations
LLIN	Long Lasting Insecticide Treated Nets
MoH	Ministry of Health
MSM	Men Who Have Sex With Men
NCD	Non Communicable Diseases
NGO	Non-Governmental Organizations
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV
PMTCT	Prevention of Mother-to-Child Transmission
PrEP	Pre-Exposure Prophylaxis
RBC	Rwanda Biomedical Centre
RDT	Rapid Diagnostic Test
RNGOF	Rwanda NGOs Forum on HIV/AIDS and Health Promotion
RPHIA	Rwanda Population-based HIV Impact Assessment
TB	Tuberculosis
TPT	TB Preventive Therapy
U=U	Undetectable = Untransmittable
UHC	Universal Health Coverage
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development

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INTRODUCTION

Rwanda NGOs Forum on HIV/AIDS and Health Promotion (RNGOF on HIV AIDS & HP) is a national network of NGOs that engages its membership in policy advocacy and development, and the design and implementation of HIV, TB, Malaria, neglected tropical diseases (NTDs), non-communicable diseases (NCDs), Reproductive, Maternal, New-born, Child, Adolescent Health and Mental Health. Its mission is to promote, coordinate, build capacity, advocate for; monitor and evaluate activities of member NGOs engaged in the Health and Human Rights response in Rwanda; Networking and advocate for civil society involvement in all national health related Programs and Human Rights and policy development in order to improve the living conditions of the affected and or infected communities. The organizational vision is to eradicate barriers that could compromise the behavior change of the Rwandan population by way of which men, women, youth and children are protected from HIV/AIDS, and Health Promotion and are all able to partake in the same rights as all citizens.

Community-Led Monitoring (CLM) is a powerful approach recognized by a number of key actors in the health field as an effective and useful tool for improving availability, accessibility, acceptability and quality of health services for key and vulnerable populations and other service users. The Global Fund defines CLM as a "Mechanism that service users or local communities use to gather, analyze and use information on an ongoing basis to improve access to, quality and the impact of services, and to hold service providers and decision makers to account"[1]. The Global Fund supports community-led monitoring as it is an effective way to learn from communities on how to improve health services and respond to human rights and gender barriers to health [1]. On the other hand, UNAIDS defines CLM as an accountability mechanism for the improvement of service quality and access. CLM is led and implemented by local community-led organizations of people living with HIV, networks of key populations and other affected groups. CLM uses a structured platform and rigorously trained peer monitors to systematically and routinely collect and analyze qualitative and quantitative data on service delivery. It uses these data to establish rapid feedback loops with programme managers and health decision-makers. CLM data builds evidence on what works well, what is not working and what needs to be improved, with suggestions for targeted action to improve outcomes. Through the CLM process, community-led organizations and key population groups increase their technical capacity to gather, analyze, secure, use and own data. The data collected complement local and national monitoring and provide key information to fill critical gaps in the decision-making process that leads to evidence-informed action to improve services.

The government of Rwanda has prioritized primary health care, aiming to improve access to health services and make progress towards universal health coverage (UHC), and epidemiological data for HIV, TB and Malaria indicate that the country is on track, and with targeted improvements may realize its national goals and objectives. With this understanding and in consultation with community led organizations and the respective communities, and the HIV, TB and Malaria programs under the Rwanda Biomedical Centre (RBC) an integrated community led monitoring (iCLM) model was conceptualized. The iCLM model sought to assess the Availability, Accessibility, Acceptance and Quality (AAAQ) of health services for

[1]https://www.theglobalfund.org/en/updates/2020/2020-05-18-resources-for-community-based-monitoring/

HIV, TB and Malaria within health services delivered within health facilities and at community level.

BACKGROUND

HIV/AIDS, TB, and Malaria remain a public health priority in Rwanda, and the country continues to make progress in the fight against those three diseases through multifaceted evidence-based approaches such as early diagnosis and effective management of cases as guided by the National Strategies. Rwanda's has a national HIV prevalence rate of 2.6% among adults aged 15-49, 3.2% among women and 2.0% among men in adult population (RPHIA 2018-2019)[2], the highest rates are concentrated among certain specific and key populations with 34% among female sex workers (FSW) and 6.5% among men who have sex with men (MSM). RPHIA 2020 shows that the HIV prevalence remains higher among women (7.4%) aged 50-54 and men aged 55-59 years (6.5%). Rwanda is not among the high burden TB countries, and estimated TB incidence rates in Rwanda are lower than the Global and AFRO Regional average[3]. The incidence of Tuberculosis in Rwanda fell gradually from 100 cases per 100,000 in 2003 to 56 cases per 100,000 people in 2022[4]. However, despite great progress, challenges remain to eliminate TB, including people at risk of developing TB disease, asymptomatic and symptomatic patients being missed by the health system. Malaria continues to be a public health concern in Rwanda. In response to Malaria infection, Rwanda implemented integrated Malaria control interventions including LLIN distribution through mass campaigns and routine channels, IRS, behavior change communication, and improved access to diagnostics and treatment and those combined interventions resulted in significant Malaria infection reduction. As per the Malaria annual report, almost all 30 districts of Rwanda registered a decline in Malaria from 76 per to 47 per 1,000 person per year in FY 2021-2022[5] (39% reduction).

Rwanda is well placed to build on progress to advance the fight against the three diseases in the country. This will however require that the programs identify and respond to challenges that affect access to availability, the affordability and the quality of services received. It is against this background that Rwanda developed and piloted the iCLM for HIV, TB and Malaria to get feedback from users notably high risks groups including Key and Vulnerable Populations (KVPs) of HIV, TB and Malaria services in a routine and systematic manner that will translate into action and change.

[2] The Rwanda Population-based HIV Impact Assessment (RPHIA), a national household-based study conducted in 2018–19.

[3] Tuberculosis and Lung Diseases National Strategic Plan, Mid 2019 - mid 2024, Extended to June 2027 PEPFAR, Community-Led Monitoring Fact Sheet, 2020

[4] https://knoema.com/atlas/Rwanda/Incidence-of-tuberculosis

[5] https://rbc.gov.rw/fileadmin/user_upload/report22Malaria%20Annual%20Report%20FY2021-2022-1.pdf

GEOGRAPHICAL SCOPE OF THE PILOT

The districts and health facilities for the iCLM pilot phase were purposefully selected during the Conceptualization and validation of iCLM Model for HIV, TB and Malaria by stakeholders of the three diseases who included HIV and TB communities, community led and civil society organizations implementing HIV, TB and Malaria programs, technical partners namely UNAIDS, PEPFAR and USAID and the Ministry of Health through RBC/ program heads and team members of the HIV, TB and Malaria.

The Gasabo, Rwamagana and Bugesera districts were selected for the pilot because collectively they presented a balanced representation of the three diseases, notably where there was a high incidence of the diseases, and where challenges were experienced. In each district, four Health Centres were sampled to represent the rural and urban dichotomy of the districts. Epidemiological data identifies the City of Kigali (Kicukiro and Gasabo districts) with the highest number of men who have sex with men (MSM), with Gasabo district having the highest number of female sex workers (FSW). Gasabo district also has the highest number of adolescent girls and young women (AGYW) who are pregnant. The city also has the highest cases of TB (27.3%) with Gasabo district having the highest number of TB cases (772 (in the FY 2023-2024. According to the 2023/2024 Malaria incidence data, Malaria is also high Gasabo is district with an incidence of 71 per 1000 of the population[6]. Health Centres sampled for the pilot in Gasabo district are Gihongwe, Kagugu and Kinyinya, and Gikomero

Rwamagana district in the eastern province was sampled due to its high number of adolescent girls and young women (AGYW) who are pregnant. The district is among those with a high positivity rate through HTC services and PMTCT with newly diagnosed individuals (HIV-NSP 2018-2024 MTR). The overall decrease (-9) in the TB notifications the reporting period could be attributed to a 70% drop in notifications in Rwamagana District (from 2,559 to 772 cases) a district that accounted for 27% of national TB notification in the 2022-2023 fiscal year TBORD annual report 2023-2024. Health Centres sampled for the pilot in the district are Avega, Mwulire, Nzige, and Rwamangana HC.

Bugesera district is one district located in the Eastern Province. It was sampled given the province's high HIV prevalence among adolescent girls and young women, specifically teen mothers. Recent census analytics show the adolescent fertility rate is highest in Eastern Province (36 births per 1,000 girls aged 15-19), and RDHS district profiling notes Bugesera has the largest gap between wanted and total fertility in the province, flagging heightened vulnerability among AGYW.[7]

In HIV, Bugesera has featured among districts with notable clusters of recent infections, reinforcing the case for intensified HTC and PMTCT outreach in high-mobility corridors linked to Nyamata District Hospital.[8]

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[6] https://rbc.gov.rw/fileadmin/user_upload/report24/Malaria%20Annual%20Report%20FY2023-2024-1.pdf

[7] https://statistics.gov.rw/sites/default/files/documents/2025-02/RPHC5%20Thematic%20Report_Fertility.pdf?

[8] https://rbc.gov.rw/fileadmin/user_upload/report_2024/hiv/HIV_Annual_Report_FY_2020-2021_Final_vers_31_Aug_2021.pdf

On TB, the national FY2023/24 program reported 8,551 notifications, with community platforms and diagnostics scaling nationwide; while the public report does not publish a district-level TB breakdown for Bugesera, the district hospital is an established TB/HIV integration point in the Eastern Province network. [9]

Over the past three years, Bugesera has consistently ranked among the 15 districts with the highest malaria incidence. In response, the district has implemented a targeted package of interventions: indoor residual spraying in hotspot sectors, mass and continuous distribution of long-lasting insecticide-treated nets (LLINs), house-to-house vector control (including larval-source management and environmental sanitation), and strengthened community case management. Together, these measures are designed to reduce Malaria transmission, blunt seasonal spikes, and protect high-risk households.

The selected pilot Health Centres are Nyamata, Gashora, Mayange, and Ruhuha, all under Nyamata DH's catchment area.

Table for Selected Pilot Health Centres From Gasabo, Bugesera, And Rwamagana Districts

Districts	Health Centres in Urban Areas	Health Centres in Rural Areas
Gasabo	Kinyinya	Gihogwe
	Kagugu	Gikomero
Bugesera	Nyamata	Gashora
	Mayange	Ruhuha
Rwamagana	Rwamagana	Nzige
	Avega	Mwulire

[9] https://www.rbc.gov.rw/fileadmin/user_upload/report_2024/TB/TBORD_annual_report_2023-2024.pdf?

METHODOLOGY

The iCLM pilot was undertaken after a series of consultative meetings with communities, CSOs, the HIV, TB, and Malaria national programs, and technical partners, including UNAIDS, PEPFAR, CDC and USAID, that culminated in a week-long conceptualization workshop. The conceptualization workshop agreed to have an integrated model for HIV, TB, and Malaria that would assess the AAAQ of health services delivered at the health facility level and at community level. Three districts and four Health Centres from each district were sampled for the pilot iCLM mechanism. The conceptualization workshop also endorsed the need for an iCLM model that is digital, paperless, and capable of providing real-time feedback from service users accessing health services. The iCLM mechanism was summarized in the Protocol for iCLM, which was validated by stakeholders, including communities, community-based and community-led CSOs, the HIV, TB, and Malaria programs, and SPIU from RBC, CCM-Rwanda, the Ministry of Health, and Technical partners including UNAIDS, WHO, PEPFAR, CDC, USAID, and PIH, before the onset of the pilot.

The iCLM pilot entailed the design of the iCLM system for data collection, recruitment, and orientation of staff and community monitors from communities to undertake the collection of feedback from communities, introductory and orientation meetings at district and health facility levels, training of community monitors and health facility focal points. For each health centre, four community monitors were deployed to the health facility and four to the community. This was followed by facility-level introduction meetings, and the start of the iCLM pilot collection of data from service users in twelve Health Centres across the three districts Gasabo (Gihogwe), Gikomero, Kinyinya and Kagugu), Rwamagana (Nzige, Mwulire, Rwamagana and Avega) and Bugesera (Gashora, Mayange, Nyamata and Ruhuha health centres).

The pilot process was supported by daily check-ins and on-site field support, and supervision of the community monitors,health facility focal points and iCLM District Coordinators. Monthly analysis of feedback collected used to inform this report.

LIMITATIONS

- Conceptualization and External Delays: The initial conceptualization of the iCLM model took longer than anticipated. This necessary delay was a result of the extensive, in-depth consultation required with all HIV, TB and Malaria stakeholders during the system's design phase for data collection and reporting.
- Implementation of the pilot phase was delayed due to late fund disbursements for the July–December 2024 period, compounded by the suspension of PEPFAR-supported activities. As a result, the iCLM model—designed to assess the Availability, Accessibility, Acceptability, and Quality (AAAQ) of HIV, TB, and Malaria services at both facility and community levels could not fully evaluate the civil society component during the first month. Community-based services provided by CHWs and CSOs, which were central to the assessment scope, were not active at the time, limiting the comprehensive measurement of community-level service delivery.
- The pilot was further disrupted by the Marburg virus outbreak, which triggered heightened national preparedness measures, redirected health workforce capacity, and constrained routine community engagements.

KEY LESSONS LEARNED

i. Although the iCLM model combines information for the three diseases, the analysis and reporting must be disaggregated by disease. This specialization ensures that the data is relevant and actionable for the distinct stakeholders and communities involved in HIV, TB, or Malaria programs. By focusing the findings, the report can precisely identify areas for improvement, directly guiding each program toward better quality service delivery.

ii. The core purpose of CLM is to empower communities to verify service standards, not to run elaborate research projects. Therefore, the data collection tools must be lean, highly focused, and designed only to collect the essential information necessary to check service compliance with the AAAQ standards. Overly detailed or complex data collection dilutes the monitoring mission and burdens peer monitors unnecessarily.

iii. Given that community monitors and peer educators are often stronger in HIV knowledge than in TB and Malaria, the implementation revealed a critical need for extensive, disease-specific training. This comprehensive capacity building must be coupled with rigorous quality assurance processes, specifically involving the consistent review of data collected and prompt provision of feedback to monitors. This ensures the accurate interpretation of complex questions and reliable documentation of qualitative data probes, which are essential for quality iCLM reporting.

iv. The implementation of the iCLM model proved complex due to the heavy volume of integrated data. The principal lesson is that the system's management, from design through execution, must be **s**trategically well thought out to avoid overburdening the process. Comprehensive preparation is required to efficiently accommodate the varied AAAQ issues and ensure the community component is monitored at an adequate depth to facilitate accurate understanding and documentation of improvement areas.

v. To implement iCLM effectively, a key lesson is the need for comprehensive training coupled with hands-on support for community monitors. This requires that Program staff and iCLM District Coordinators conduct worksite visits to guide monitors. This direct guidance is essential to ensure they collect complete and accurate data—not just quantitative numbers and that they correctly ask all questions, including those that require detailed qualitative responses, thus enabling them to accurately capture people's experiences and explanations.

vi. A critical lesson is that the digital collection and analysis of integrated HIV, TB, and Malaria data cannot function effectively in isolation. The system must be consistently supported by robust programmatic expertise to ensure **e**fficient administration of questionnaires, facilitate the timely review of incoming data, and enable the rapid, informed identification and resolution of priority issues of concern.

vii. The hosting organization (Rwanda NGOs Forum on HIV/AIDS and Health Promotion) for iCLM digital System (Community system for data management) needs to have

enough technical team so that the team can support tracking and timely responding to identified issues without necessarily waiting for a week, a month, and a quarter.

viii. Review and update of the iCLM Model and Tools using information and experience from the pilot phase is crucial for effective use.

ix. There is a need for additional investment in upgrading and strengthening the iCLM system/software to enhance data analysis and reporting, enabling real-time or more timely processing.

x. Integrating Artificial Intelligence (AI) is critical to achieving full system functionality and improving overall performance of the community data management platform.

xi. Strengthening CSO systems and equipping community monitors with the necessary skills and access to digital devices is essential to ensure effective use and sustainability of the enhanced iCLM system

xii. Service users feel valued when asked about services offered to them by their peers. This way they feel more comfortable to open up about their health status and the challenges

FINDINGS

8. Social-Demographic Information of the Participants

The findings presented herein are a summation of feedback received from the iCLM pilot phase on HIV, TB and Malaria from twelve (12) Health Centres in the districts of Rwamagana, Gasabo and Bugesera from 24 March to 25 April 2025. The findings for four Health Centres in each district have been consolidated to present consolidated feedback for the district.

The data was analyzed based on the AAAQ for the three diseases (HIV, TB and Malaria) in the three districts. The results are presented in two forms, one part for facility based and the other from the community level. Data were extracted and analyzed from N services users to be able to compile these findings.

Table represents Total Number of Respondents by Condition in the 3 districts surveyed

Respondents by Condition per District	Community Based Service			Health Facility Service			Grand Total
	Female	Male	Total	Female	Male	Total	
HIV	**651**	**520**	**1,171**	**3,296**	**1,471**	**4,767**	**5,938**
Bugesera	62	54	116	1,096	574	1,670	**1,786**
Gasabo	156	107	263	1,343	417	1,760	**2,023**
Rwamagana	433	359	792	857	480	1,337	**2,129**
Malaria	**968**	**934**	**1,902**	**3,806**	**2,269**	**6,075**	**7,977**
Bugesera	387	492	879	1,000	753	1,753	**2,632**
Gasabo	382	335	717	2,054	1,205	3,259	**3,976**
Rwamagana	199	107	306	752	311	1,063	**1,369**
Tuberculosis	**113**	**173**	**286**	**192**	**176**	**368**	**654**
Bugesera	1	17	18	47	70	117	**135**
Gasabo	46	87	133	66	44	110	**243**
Rwamagana	66	69	135	79	62	141	**276**
Grand Total	**1,732**	**1,627**	**3,359**	**7,294**	**3,916**	**11,210**	**14,569**

8.1. HIV

8.1.1 Facility Based HIV Services Delivery

Across all districts, ARV collection or refills was the dominant reason for visiting health facilities, accounting for 62% (N=686) of all visits in Rwamagana, 60% (N=1038) in Gasabo, and 68% (N=1172) in Bugesera. HIV testing and counselling was the second most common service sought, representing 15% (N=170) of visits in Rwamagana, 20% (N=249) in Gasabo, and 14% (N=351) in Bugesera. Other services including PMTCT, PrEP, condom provision, lubricants, and viral load testing each represented less than 5% of district-level service demand, underscoring that routine ART refills and HIV testing remain the primary drivers of clinic attendance across the three districts

Those who did not receive the services they sought attributed it to the unavailability of community health workers, commodity stockouts of condoms and test kits, and the lack of health workers at Health Centres.

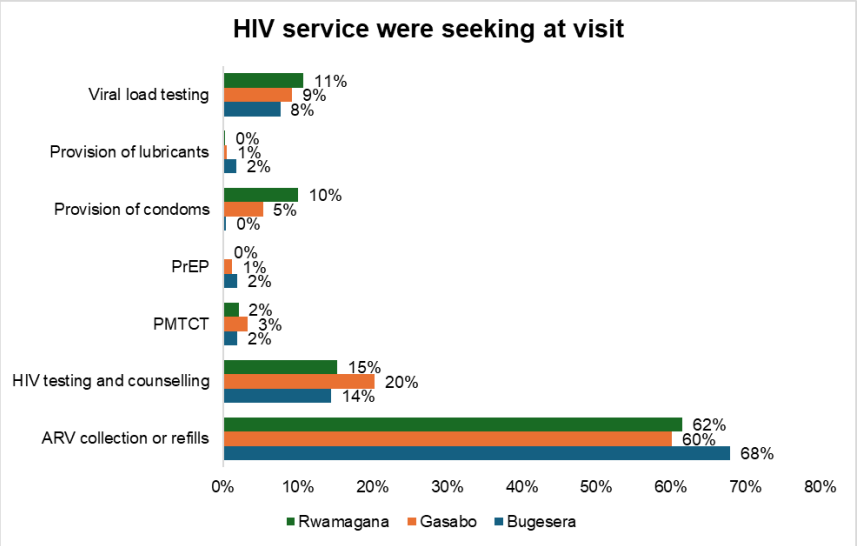

Figure 1 - Graph represents HIV services sought (by percentage)

TB testing amongst HIV positive service users was reportedly moderately high across the three districts, with 21% (N=51), Bugesera, 23% (N=37) Gasabo, and 52% (N=172) in Rwamagana reporting not being tested for TB. Cumulatively, there is a significant population of PLHIV who are not testing for TB in each of the districts.

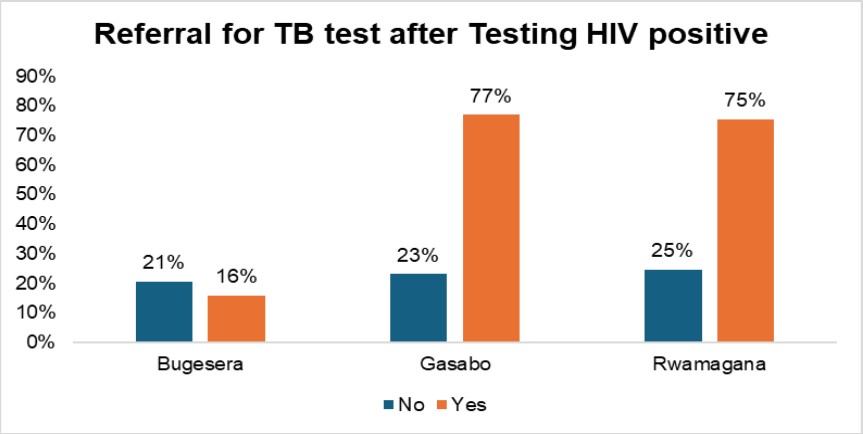

Figure 2 - Graph represents Referral for TB Testing after HIV Positive Result

A high number of HIV service users who have ever received HIV testing and counseling services reported having received pre-test HIV counseling (Bugesera 82% (N=1476), Gasabo 72% (N=1317), and Rwamagana 74% (N= 650) and post-test HIV counseling (Bugesera 77% (N= 1519), Gasabo 77% (N= 1412), and Rwamagana 79% (N=1476). Cumulatively, across the three districts, a significant proportion of HTC service users are not getting the requisite pre- and post-test counseling.

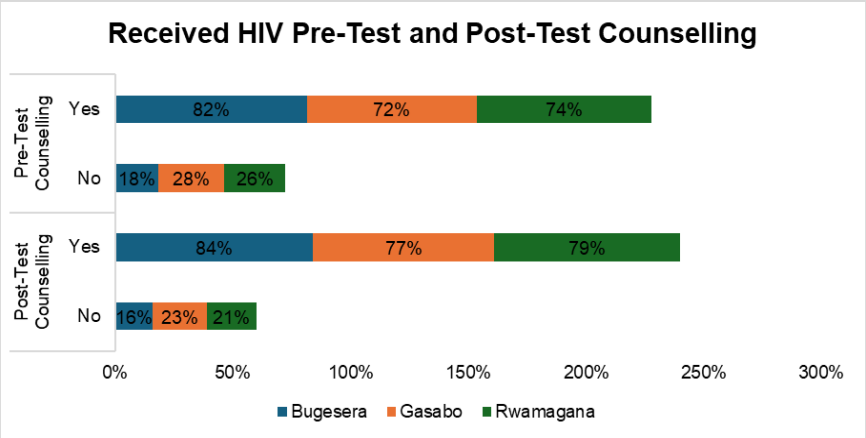

Figure 3 - Graph represents Percentage of HTC Service Users who received Pre and Post Test Counseling

The majority of the PLHIV service users (Bugesera 97% (N=1529), Gasabo 95% (N= 1405), Rwamagana 95% (N= 1056) reported being able to access their ARVs from the health centre. However, limited access to ARVs was reported equally in Rwamagana and Gasabo at 5% (N=72), while Bugesera reported 3% (N=40), highlighting persistent gaps in ARV access across health centres for key populations.

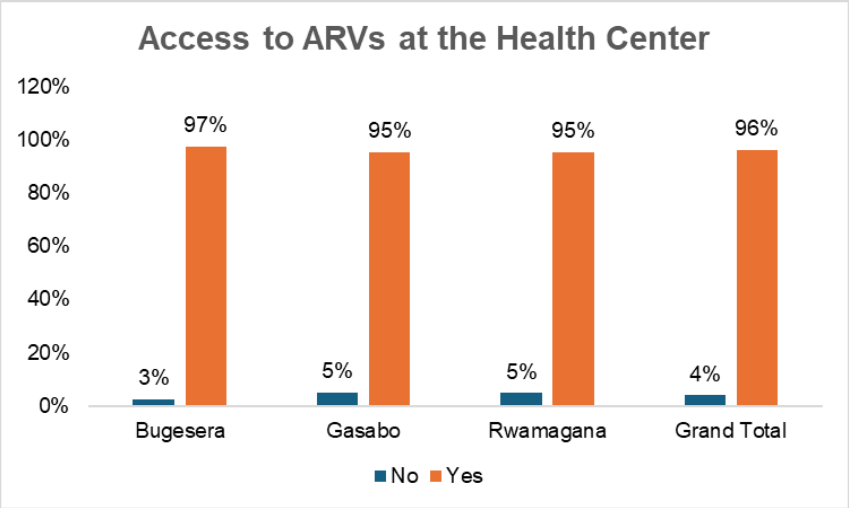

Figure 4 - Graph represents Access to ARVs at the Health Centre

Stockouts of ARVs are low, with 3%, 4% and 9% from Bugesera, Gasabo, and Rwamagana, respectively, reporting that they have ever experienced stockouts. The majority of the stocks were reported to last less than a month

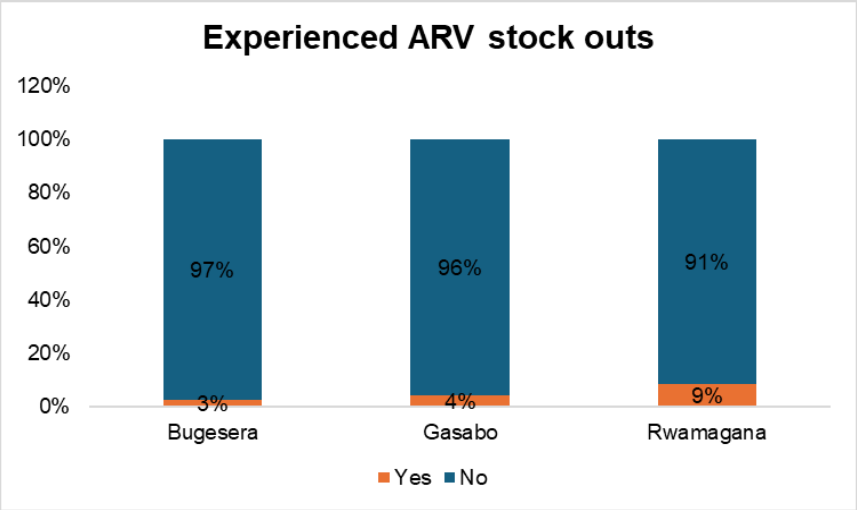

Figure 5 - Graph represents Percentage of Out-Of-Stock ARV experiences

The data indicate uneven access to ARV-related counselling across districts in the last six months. Bugesera shows the highest proportion reporting occasional counselling 39% (N= 701), but only 26% (N= 466) received counselling regularly, suggesting inconsistent engagement. Gasabo has the largest share of respondents reporting regular counselling 38% (N=706), yet also displays notable proportions in the "don't know" 20% (N= 358) and "never" 15% (N= 279) categories, reflecting mixed experiences. Rwamagana performs relatively better

in regular counselling 31% (N= 430) and has the lowest "never counselled" rate 9% (N=127), but still shows substantial reliance on occasional counselling 34% (N= 476).

Overall, counselling provision appears irregular in all districts, with a significant proportion of clients receiving support sporadically or not at all, highlighting gaps in systematic adherence counselling.

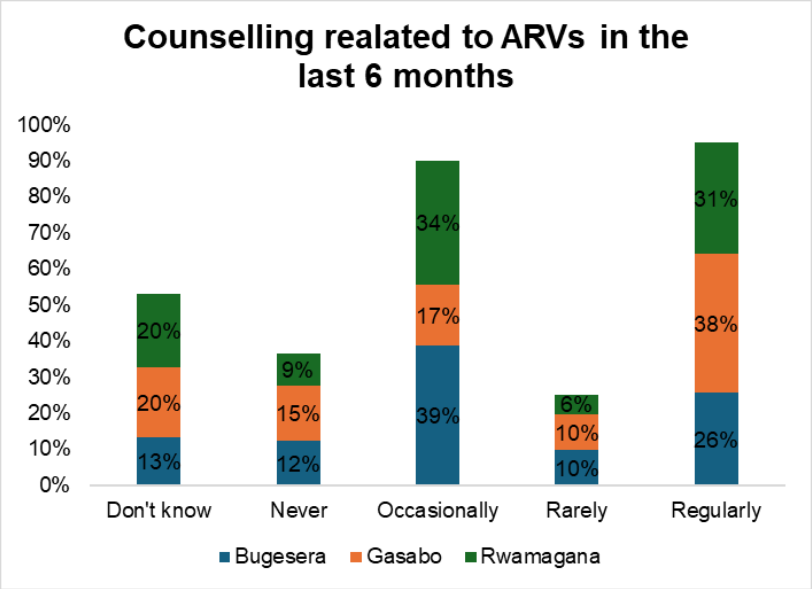

Figure 6 - Graph represents Frequency of ARVs Counseling in the last 6 months

When asked where consent was sought when HIV testing and counseling were conducted, 23% (N=418), 39% (N= 715) and 41% (N= 564) of service users from Bugesera, Gasabo, and Rwamagana districts, respectively, reported that they were never asked for consent before their respective HIV tests.

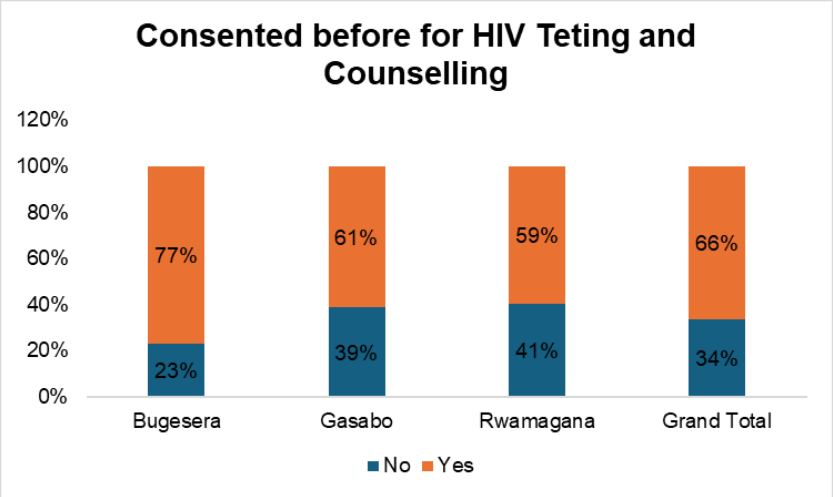

Figure 7 - Graph represents Consent before for HIV Counseling and Testing

Most of PLHIV service users reported having undertaken a viral load test within the last six months (Bugesera (48%) (N=117), Gasabo (76%) (N=123), and Rwamagana (65%) (N=174) and the last twelve months (Bugesera (19%) (N= 46), Gasabo (9%) (N=15), and Rwamagana (25%) (N= 84). However, a significant number 13% (N= 32), 8% (N=13) and 1% (N=4) in Bugesera, Gasabo, and Rwamagana districts respectively, were not aware of when they last had their respective viral load tests, pinpointing limited treatment literacy that is likely to affect health living, including U=U and the achievement of the 95 95 95 targets in Rwanda.

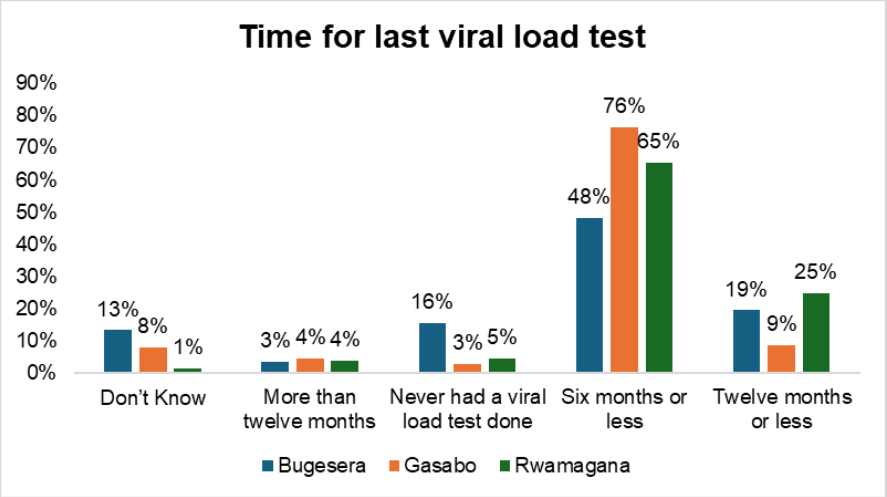

Figure 8 - Graph represent results from Viral Load test

Across all three districts, a majority number of PLHIV who reported ever taking a viral load test indicated that they never received their viral load test results (Bugesera: 56% (N= 137), Gasabo: 36% (N=104), Rwamangana: 31% (N= 100).

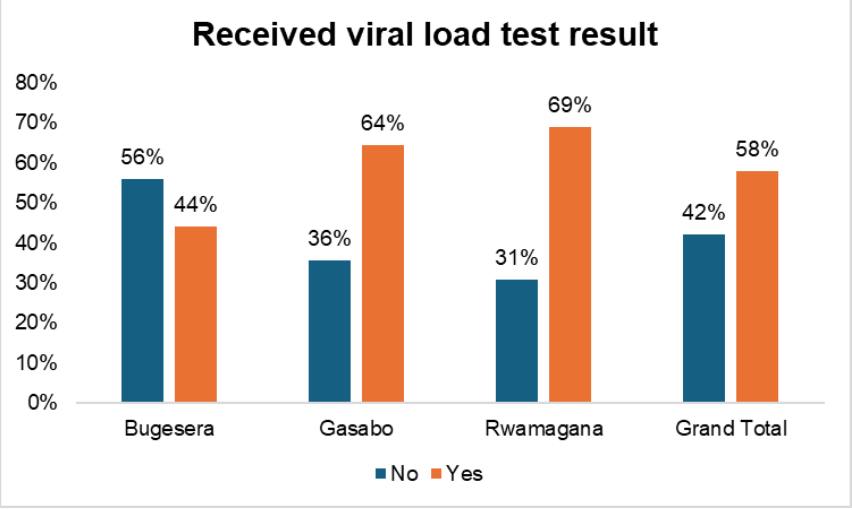

Figure 9 - Graph represent results from Viral Load survey

HTC service users in all three districts also reported a high degree of privacy and confidentiality (Bugesera: 93% (N=1685), Gasabo: 89% (N=1638), and Rwamagana: 89% (N=1237).

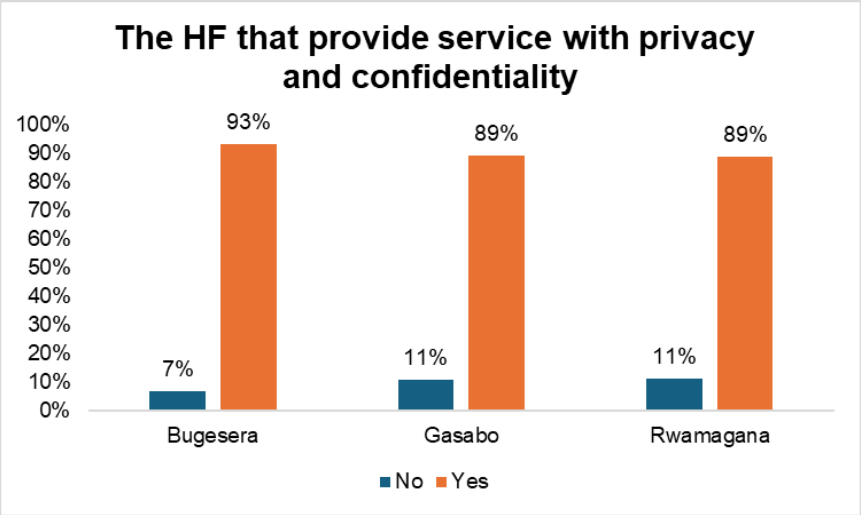

Figure 10 - Graph represent results from Viral Load survey

Stigma and discrimination levels were reported by People Living with HIV accessing HIV services with 1% (N=10), 1% (N=19) and 1% (N=16) in Bugesera, Gasabo and Rwamagana district respectively reporting that they had experienced stigma and discrimination.

However, KPs reported experiencing stigma and discrimination in their respective health facilities. Among those accessing HIV services, 10% (N=127) in Rwamagana, 9% (N=196) in Bugesera and 69% (N=503) in Gasabo reported having experienced stigma or discrimination, with Gasabo recording the highest level.

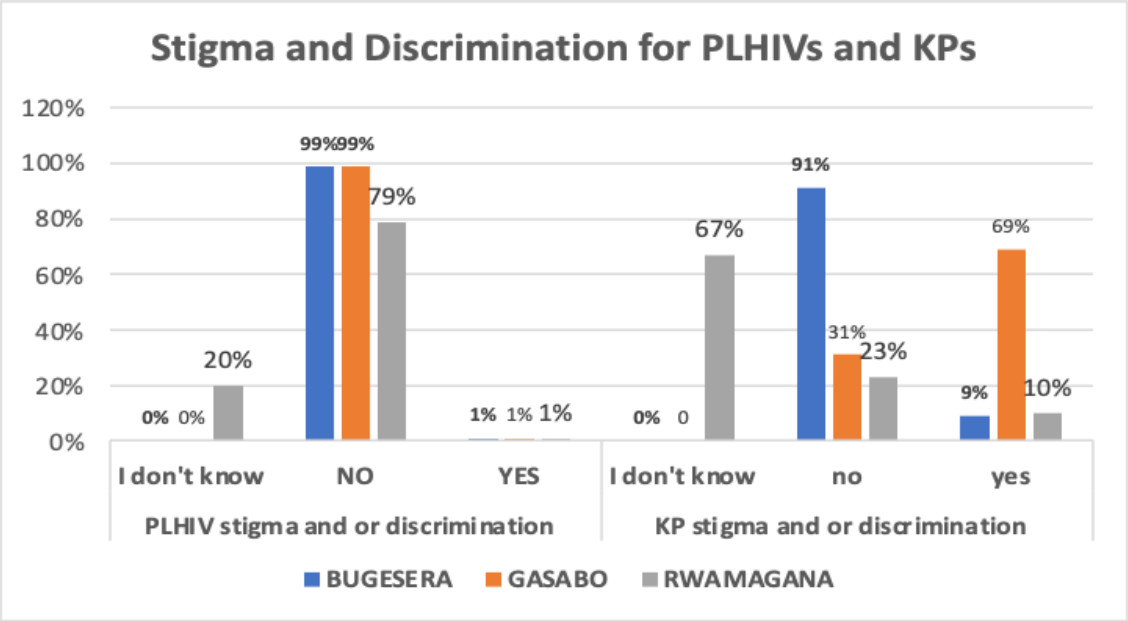

Figure 11 - Graph represents Stigma and Discrimination for PLHIVs and KPs

The data show substantial variation in referral patterns across districts, Bugesera performs well in linking clients to CHWs (45%) (N= 325) and TB services (50%) (N= 46), reflecting relatively strong community-based follow-up, though referrals for specialized hospital care remain very low (10%) (N= 8). Gasabo demonstrates strong facility-level referrals, especially for specialized care (51%) (N= 33) and PMTCT services (53%) (N= 152), but shows weak

linkage to TB services (18%) (N= 17) and limited engagement of CHWs (29%) (N=191). Rwamagana displays mixed performance, with moderate referrals to peer educators (35%) (N= 245) and specialized care (40%) (N= 33), but extremely low PMTCT referrals (7%) (N= 21).

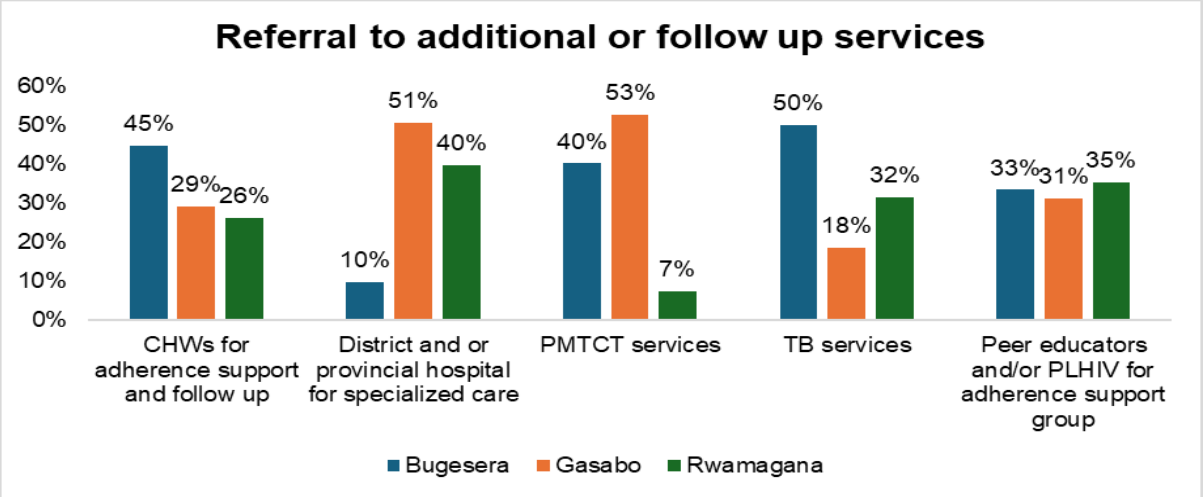

Figure 12 - Graph represents Referral to Additional or Follow-up Services

8.1.2 Community-based service HIV delivery

The majority of the community-based service users reported that, they were served within an hour (Bugesera (92%) (N=921), Gasabo 88% (N=984) and Rwamagana 68% (N=840) with another 7% (N= 74) and 20% (N= 243) in Gasabo and Rwamagana districts reporting that it took more than two hours.

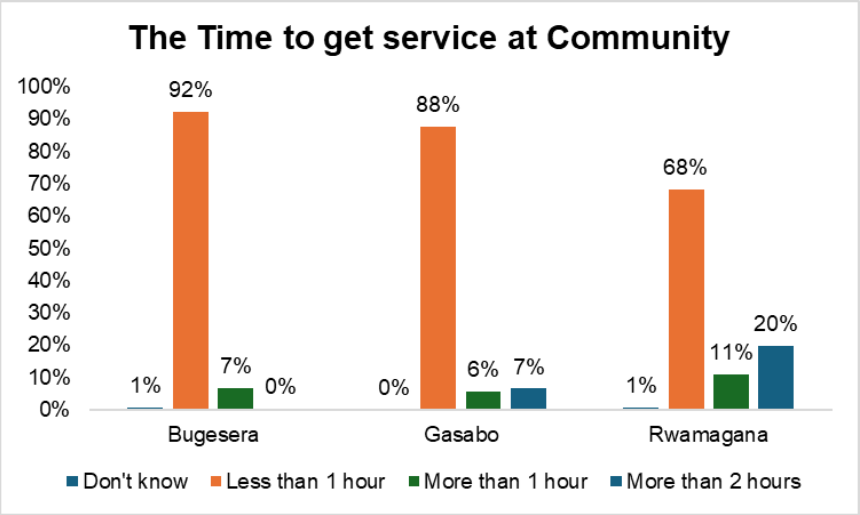

Figure 13 - Graph represents Time to get service at community

Whereas service users reported having accessed pre and post-test HIV counseling, there were variations with 41% (N= 226), 32% (621) and 79% (N=244) in Bugesera, Gasabo and Rwamagana district respectively reported not having accessed pretest counseling, with 25% (N=289), 42% (N=422) and 20% (N=165) respectively having not accessed post-test counseling.

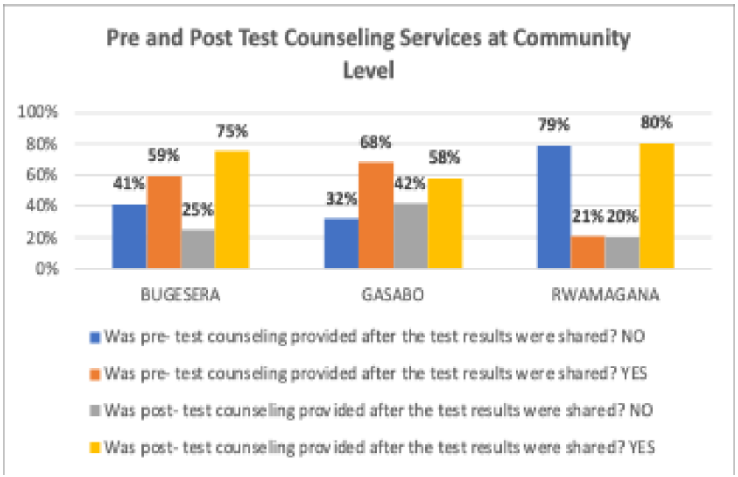

Figure 14 - Graph represents Pre and Post-test counseling services at community level

Whilst the majority of service users reported that they were advised to test for TB upon their HIV+ tests, a majority number, 22% (N= 243), 44% (N= 363) and 35% (N= 506) in Bugesera, Gasabo, and Rwamagana district respectively reported that they were not advised to undertake TB tests.

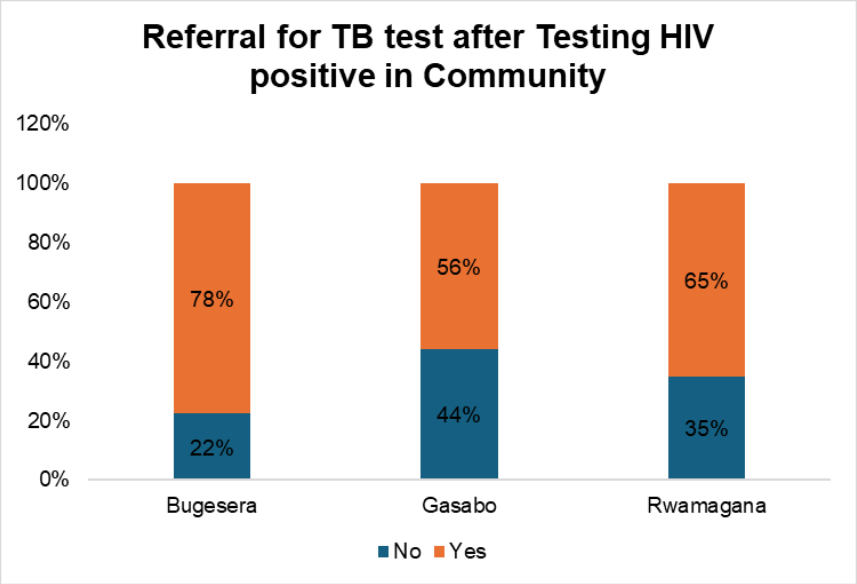

Figure 15 - Graph represents TB referral after HIV positive result

After testing HIV+, 78% (N= 55), 52% (N= 80), and 72% (N= 182) from Bugesera, Gasabo and Rwamagana district, respectively, reported that they were referred to a health facility for further care, and a majority number, 22% (N=15) Bugesera, Gasabo 48% (N=72) and 28% (N=71) in Rwamagana district were not.

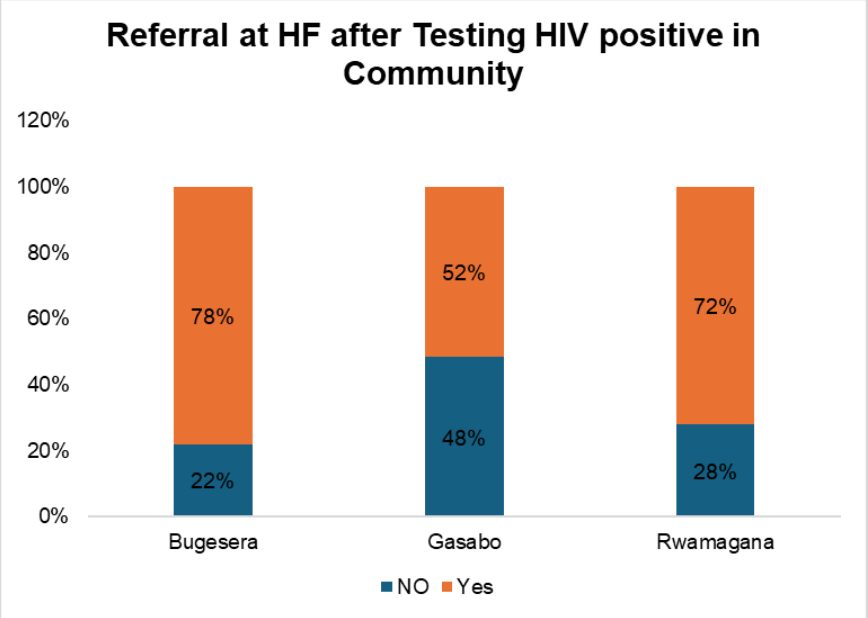

Figure 16 - Graph represents HF referral after HIV positive result

Across the three districts, PLHIV are not receiving regular adherence counselling in the community, nor are they always aware that such counselling is available. Gasabo (72% [N=311]) reported they do not know how often they receive ART adherence counselling. Similarly, regular support in Bugesera 6% (N=63) report consistent counselling, with the rest

split between "occasionally" and "never." In Rwamagana, 11% (N=140) receive counselling "occasionally," but one-third still "don't know," and 18% (N=220) reported never receiving counselling.

The data indicate that the community platform remains underused as a systematic support mechanism for ART adherence, serving primarily as a drug delivery channel. ART adherence should be reinforced at every level, including facilities, community health workers (CHW), and peer educators.

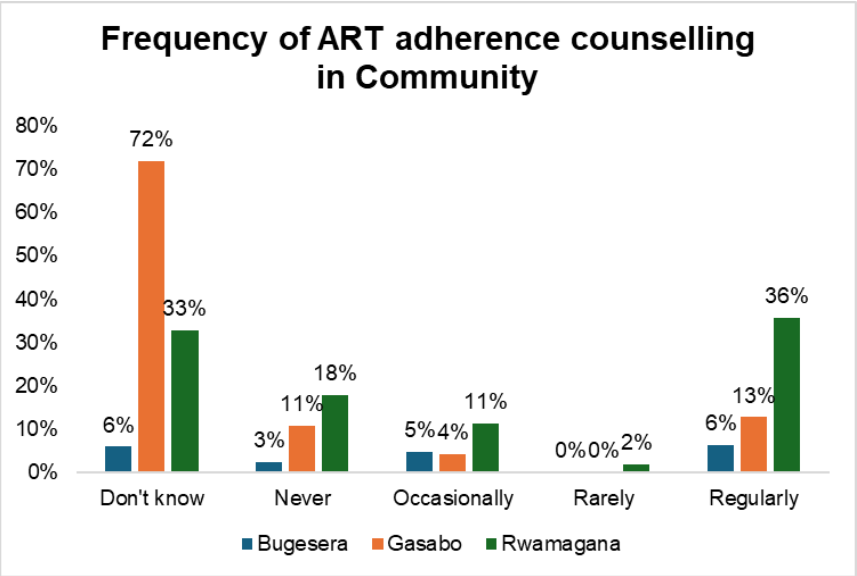

Figure 17 - Graph represents Frequency of ART adherence counseling

23% (N= 44) and 71% (N= 135) of PLHIV in Gasabo and Rwamagana district respectively reported that there were not consented disclosures of their status by either CHWs or CSOs.

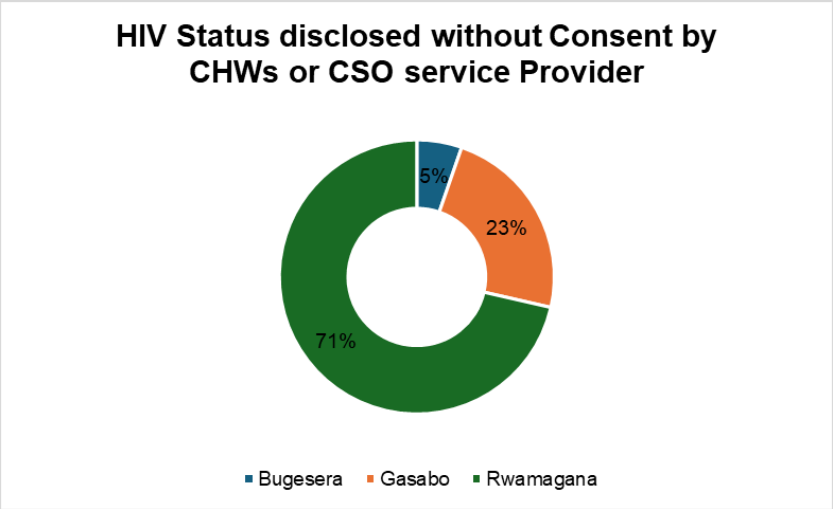

Figure 18 - Graph represents HIV Status disclosed without consent by CHWs or CSOs service Provider

Varied levels of stigma and discrimination were observed with service users in Gasabo district reporting the highest level of stigma from CHWs 16% (N= 49), followed by 15% (N=127) in Rwamagana and 4% (N= 6) in Bugesera district.

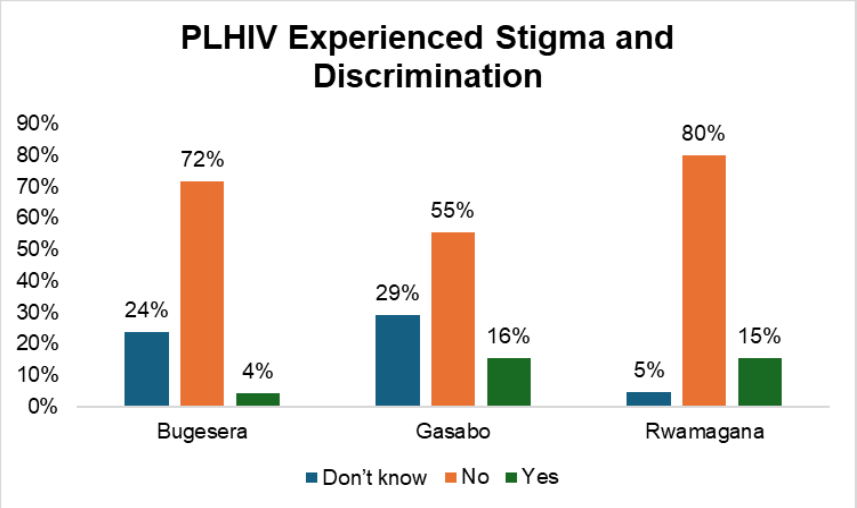

Figure 19 - Graph represents Stigma and discrimination among PLHIV

Help-seeking after experiencing violence as a KVP was extremely limited across all three districts. Rwamagana had the highest proportion of KVPs who reported ever seeking help, at 3% (N=22), followed by Gasabo at 1% (N=4). The pattern points to a serious gap in access to or use of support mechanisms for KVPs who experience violence.

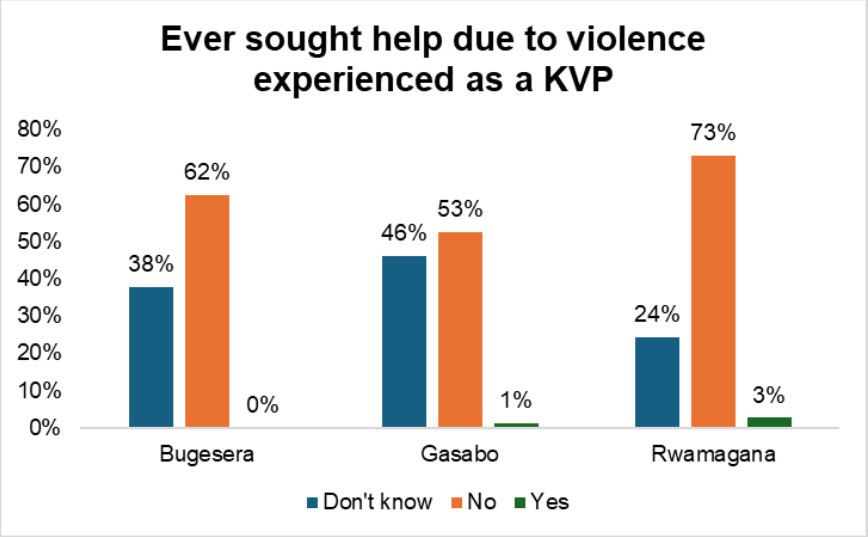

Figure 20 - Graph represents Access to services after experiencing violence

8.1.3 Advocacy issues for the Improvement of HIV Services

The findings generated from the iCLM were used to generate key priority issues that should be addressed to facilitate improvements in the delivery of HIV services notably the availability, accessibility, acceptability and quality of health services in Gasabo, Rwamagana and Bugesera districts. The advocacy issues are supported by recommendations on how best the identified issues can be addressed.

(a) Identified/Advocacy Issues and Recommendations for facility-based service delivery

❖ Advocacy issues on HIV service delivery at Health facility level

- HIV–TB co-infection testing is not being consistently conducted for people who test HIV positive across the districts. As a result, a significant number of people living with HIV are not screened for TB, increasing the risk of missed TB cases and undermining efforts to end TB in Rwanda.

- Pre- and post-test HIV counselling is not being provided consistently across districts. Many clients are undergoing HIV testing without receiving the necessary counselling before or after the test, which compromises informed decision-making, emotional support, linkage to care, and overall quality of HIV services.

- Counselling and adherence support for people living with HIV (PLHIV) on ART remains limited across districts. Many individuals under care report receiving adherence support only occasionally or rarely. This gap in continuous counselling undermines efforts to achieve viral load suppression, compromises progress toward the last "95" of the 95–95–95 targets, and weakens national campaigns such as U=U

- Reports across all districts indicate that some clients are not asked for consent before HIV testing and in some cases, experience disclosure of their HIV status without consent/permission. These practices constitute violations of privacy, dignity and human rights and undermine trust in HIV testing and counselling services

- Although most PLHIV reported having undergone viral load testing within the recommended timeframe, a notable proportion of individuals could not recall when they last had their test. Additionally, many who had been tested indicated that they never received their viral load results or were unaware of them. This lack of awareness and failure to receive results reflect low levels of treatment literacy and gaps in communication between healthcare providers and clients. These issues are likely to affect the quality of care, weaken adherence and affect the achieved 95–95–95 targets in Rwanda.

❖ Recommendations for improvement at Health Facility level

- Strengthen routine HIV–TB co-infection screening by ensuring that all individuals who test HIV positive are systematically assessed for TB at every entry point. This requires reinforcing clinical protocols, improving provider adherence, and ensuring adequate resources to support integrated testing across all districts

- Ensure consistent delivery of comprehensive pre- and post-test counselling at all HIV testing points. This requires enforcing counselling protocols, strengthening healthcare provider capacity, and instituting routine quality assurance measures to guarantee that every client receives the full counselling package as part of standard HIV testing services

- Strengthen regular and structured adherence counselling for all PLHIV enrolled in care. This includes ensuring routine follow-up, reinforcing the role of health providers in delivering ongoing adherence support, and integrating psychosocial and community-based interventions to help clients achieve and maintain viral suppression.

- Strengthen the enforcement of client rights within HIV testing services by ensuring that informed consent and confidentiality protocols are strictly adhered to. This requires continuous provider training, routine supervision, and accountability mechanisms to prevent non-consensual testing and disclosure, thereby safeguarding the rights and dignity of all service users.

- Strengthen treatment literacy and communication practices within HIV care services by ensuring that all clients are clearly informed about their viral load testing schedules and consistently receive their results. This requires reinforcing provider–client communication, integrating structured treatment literacy sessions, and establishing reliable systems for timely result dissemination to empower clients and support better health outcomes

b) Identified/Advocacy Issues and Recommendations for community -based service delivery

❖ Advocacy issues on HIV service delivery at Community level

- Pre- and post-test HIV counselling is inadequately provided across districts. Many clients undergo HIV testing without receiving the necessary counselling before or after the test. This gap compromises informed consent, emotional preparedness, linkage to care and overall service quality

- People living with HIV (PLHIV) accessing community-level services are not consistently receiving advice or information on the importance of TB testing. This gap increases the risk of undiagnosed TB among PLHIV, undermining early detection and treatment efforts.

- A significant number of PLHIV service users are not receiving adequate information on HIV treatment and healthy living. This gap in patient education may hinder progress toward achieving the 95–95–95 targets, compromise the effectiveness of U=U campaigns, and limit the ability of newly diagnosed individuals to live positively and manage their health effectively

- Unconsented disclosure of HIV status has been reported among PLHIV service users, particularly by peer educators and, to a lesser extent, by community health workers (CHWs). Such breaches of confidentiality violate client rights, compromise trust in HIV services, and may deter individuals from accessing care and support.

❖ Recommendations for improvement at Community level

- Ensure that comprehensive pre- and post-test counselling is consistently delivered at all HIV testing sites. This requires enforcing counselling protocols, strengthening healthcare provider capacity and integrating routine quality assurance systems to guarantee that every client receives the full counselling package as part of standard HIV testing services.

- Strengthen community-level HIV services to ensure that all PLHIV are routinely counselled and informed about the importance of TB testing. This includes integrating TB education into routine HIV care, training community health workers, Peer Educators and CSOs on co-infection risks and monitoring adherence to counselling protocols to improve early TB detection and treatment outcomes.

- Enhance patient education by ensuring that all PLHIV consistently receive comprehensive information on HIV treatment, adherence, and healthy living practices. This requires integrating structured counselling sessions into routine care, training healthcare providers, peer educators and CSOs on effective health communication, and monitoring the delivery of educational services to strengthen treatment literacy and empower clients
- Strengthen confidentiality and privacy protections within HIV services by providing comprehensive training to all service providers, including peer educators, CHWs and CSO staff. Implement clear accountability mechanisms and monitoring systems to prevent unconsented disclosure and ensure that the rights and dignity of all clients are respected.

c) Recommended Priority Actions for Improvement of Health Services

- Develop and implement a tailored refresher training program for health facility staff, with a strong focus on pre- and post-test counseling, treatment literacy—including viral load monitoring and adherence and the protection of the human rights of PLHIV, key populations (KPs), and adolescent girls and young women (AGYW) with inclusion of (People with Disability) PWD and faith leaders.

- Implementation of a phased refresher course at the district level for health facility staff.
- Strengthen the capacity of CHWs and community-based service providers including CSOs/NGOs and Peer Educators through targeted training on adherence support and the human rights of PLHIV, KPs, AGYW with inclusion of (People with Disability) PWD and faith leaders to enhance the quality and consistency of community-level service delivery

- Increase community-wide awareness on HIV prevention, care and treatment, stigma and discrimination, the rights and needs of people living with HIV and those at high risk, as well as the general population to promote informed, inclusive and supportive environments

- Increase awareness to PLHIV, Key Populations, AGYW and people at high risk of HIV/AIDS with inclusion of (People with Disability) PWD and faith leaders on the importance of TB testing and the availability of community-level services to strengthen early detection, linkage to care and overall health outcomes

- Develop and implement a comprehensive treatment literacy campaign led jointly by HIV program, CSOs and Peer Educators of KPs, AGYW and PLHIV with inclusion of (People with Disability) PWD and faith leaders to enhance understanding of HIV care and the importance of achieving the 95–95–95 targets at individual, community and national levels.

- Strengthen the capacity of local authorities and duty bearers through training, coordination and advocacy meetings to enhance their leadership, coordination and oversight roles in the implementation of HIV, TB and community health interventions.

8.2 TUBERCULOSIS

8.2.1 Facility Based Service Delivery of TB Services

Majority of those tested for TB services users reported ever being tested for TB (70% (N=659) Bugesera, 54% (N=540) Gasabo, 67% (N=621) Rwamagana), with most of those who were tested reporting that they were screened for TB before the testing.

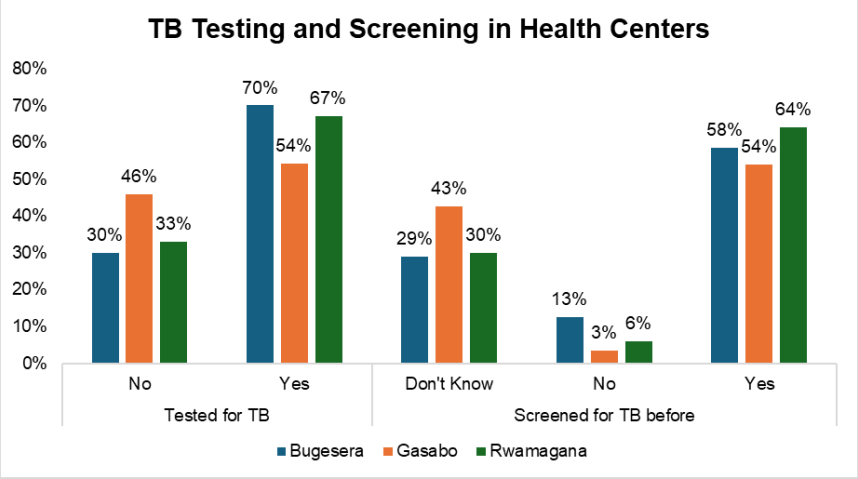

Figure 21 - Graph represents TB Testing and TB Screening in Health Centers

Most of those who reported ever being tested for TB reported that testing took place at the public health facility (Bugesera 96% (N=639), Gasabo 97% (N=541) and Rwamagana 98% (N=595)). However, only a small proportion of service users reported being tested through mobile outreach in the community (1% (N=3) in Gasabo, 1% (N=7) in Rwamagana, and 0% (N=2) in Bugesera). In addition, 3% (N=23), 3% (N=14), 0% (3) of service users reported being tested at private health facilities in Bugesera, Gasabo and Rwamagana districts respectively. This underscores the limited reach of community-based TB testing.

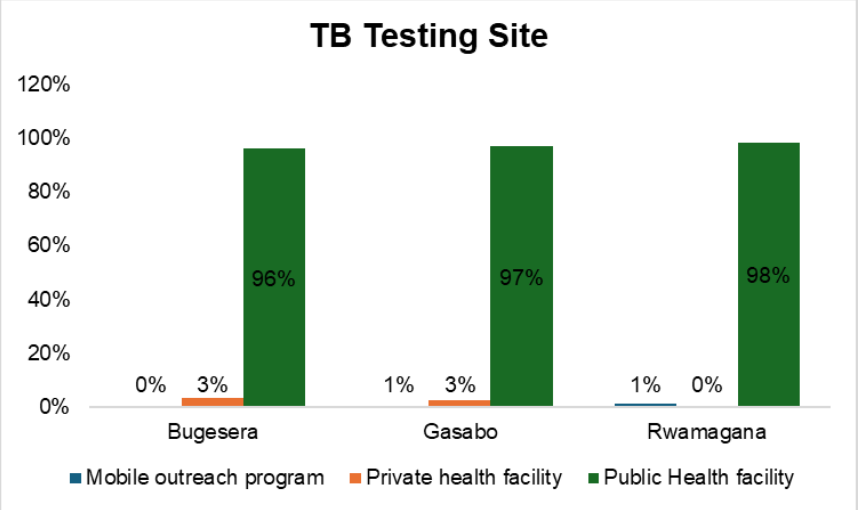

Figure 22 - Graph represents where TB Test was accessed from (TB Testing. Sites)

Advised for HIV Test: : A majority number of TB affected persons reported not being advised to undertake HIV tests 26% (N=243) Bugesera, 36% (N=362) Gasabo,31 % (N=292) Rwamagana).

Family recieved TPT: Additionally, most respondents indicated that their family members did not receive TPT, with 51% (N= 483) in Bugesera, 48% (N=483) in Gasabo, and 55% (N=506) in Rwamagana, and a majority of family members of TB affected people reported not to know anything about TPT.

Full TB treatment: however a majority number of TB affected persons reported not having completed full TB treatment where Bugesera 56 % (N=675),Gasabo 75%(N=748) and Rwamagana 73%(N= 523)

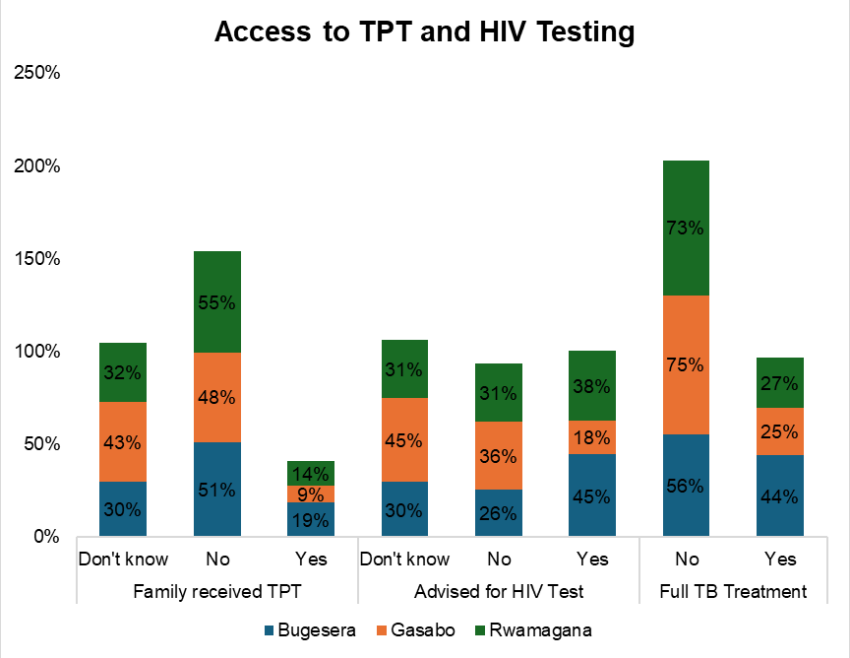

Figure 23 - Graph shows majority TB patients lacked HIV counseling; families missed preventive therapy.

Further contact tracing to screen families of those who tested TB positive was also low across all three districts, it was lowest in Gasabo and Rwamagana districts where 76% (N=431) and 76% (N=478) reported that no contact tracing was undertaken, and 67% (N=442) in Bugesera district.

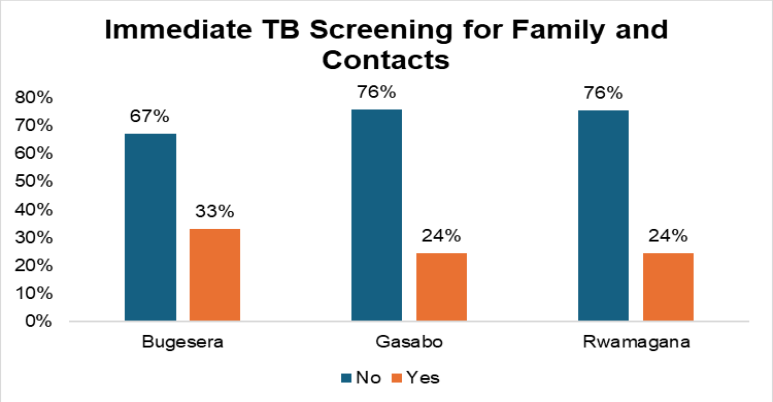

Figure 24 - Graph represents Immediate TB Screening for Family and Contacts

The graphs indicate significant gaps in TB treatment literacy and patient communication across the three districts. In Bugesera, 69% (N=465) of TB service users reported that healthcare providers did not explain the type of TB they had, a trend similarly observed in 60% (N=342) of respondents in Gasabo and 67% (N=424) in Rwamagana, showing consistently weak provider–patient communication across settings. When assessing overall TB information, counselling, and treatment literacy, Bugesera appears relatively balanced with 51% reporting they received adequate information, whereas Gasabo shows a larger gap, with 68% (N=273) reporting they received no information or counselling. Rwamagana falls in the middle, with nearly equal proportions reporting receipt or lack of counselling.

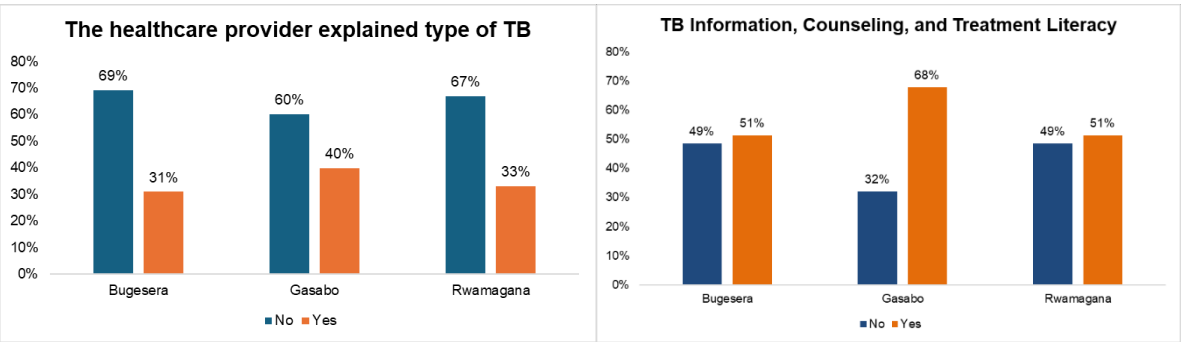

Figure 25 - Graph represents TB Treatment Literacy at Health Center

The The majority of the TB-affected persons reported that their diagnosis was undertaken within one month of them being symptomatic (65% (N=313) Bugesera, 84% (N=326) Gasabo, 88% (N=288) Rwamagana), with 28% (N=133) and 14% (N=55) in Bugesera and 11% (35) Rwamagana, respectively reporting that that their diagnosis took more than three months.

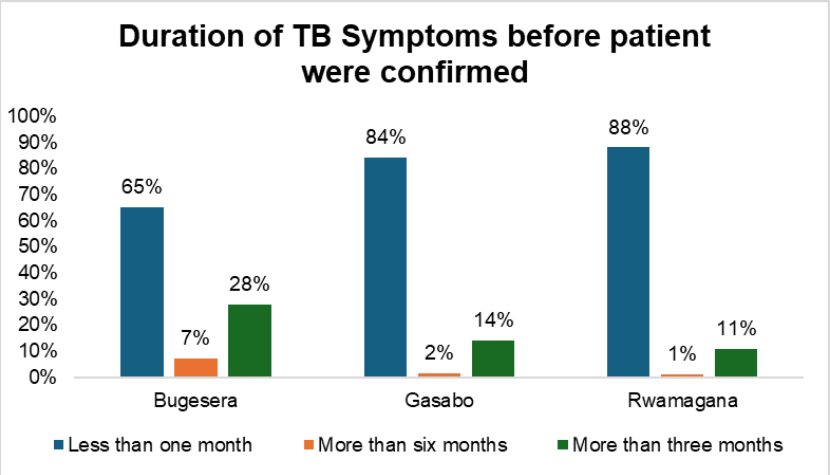

Figure 26 - Graph represents Duration of TB Symptoms Before Diagnosis

For most of those affected by TB, treatment was reported to have been initiated within a month 83% (N=288), 95% (N=278) and 79% (N=165) in Bugesera, Gasabo, and Rwamagana districts, respectively with very few reporting that their treatment was initiated after more than six months, 12% (N=42), 3% (N=10) and 20% (N=42) in Bugesera, Gasabo and Rwamagana districts respectively.

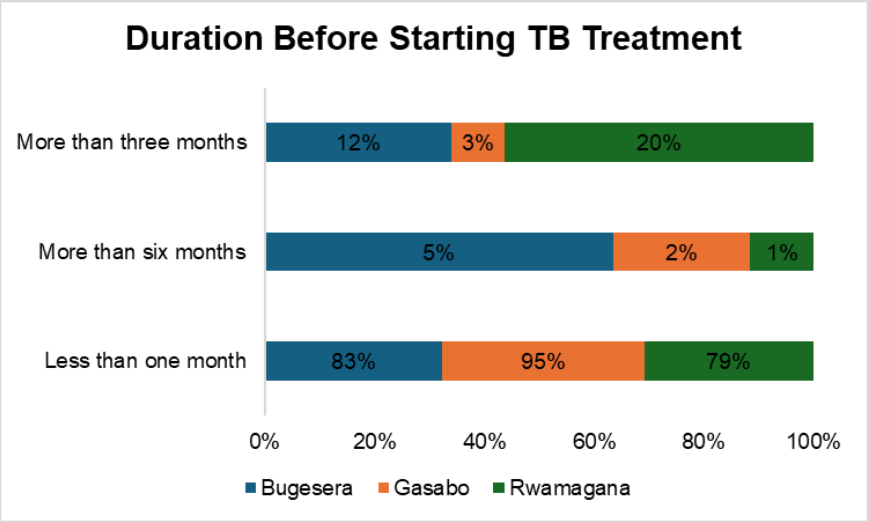

Figure 27 - Graph represents Duration Before Starting TB Treatment

Very few 4% (N=35) Bugesera, 1% (N=12) Gasabo, 5% (N=47) Rwamagana) TB affected persons reported ever experiencing stigma and discrimination because of their illness. This was mostly experienced at the outpatient point of services.

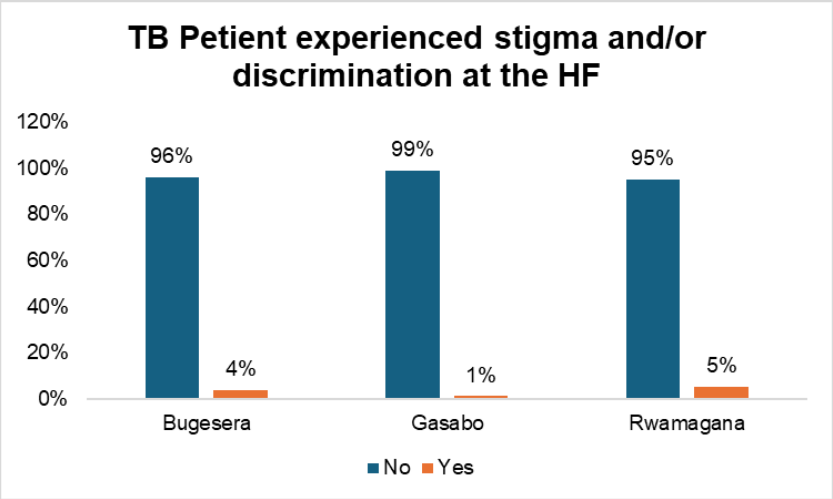

Figure 28 - Graph represent TB Patient experienced stigma and/or discrimination at the Health Facility

8.2.2 Community Based Service Delivery of TB Services

TB service users in all three districts reported that there exist community-based sensitization and awareness programs for TB. The most common identified were community outreach and mobilization for awareness and screening, and use of existing community-based meetings.

After screening and being confirmed as a TB presumptive case at the community level, referrals were undertaken in all districts, however 34% (N=31), 55% (N=157) and 38% (N=99) in Bugesera, Gasabo and Rwamagana districts respectively reported not being referred to a health facility for further treatment.

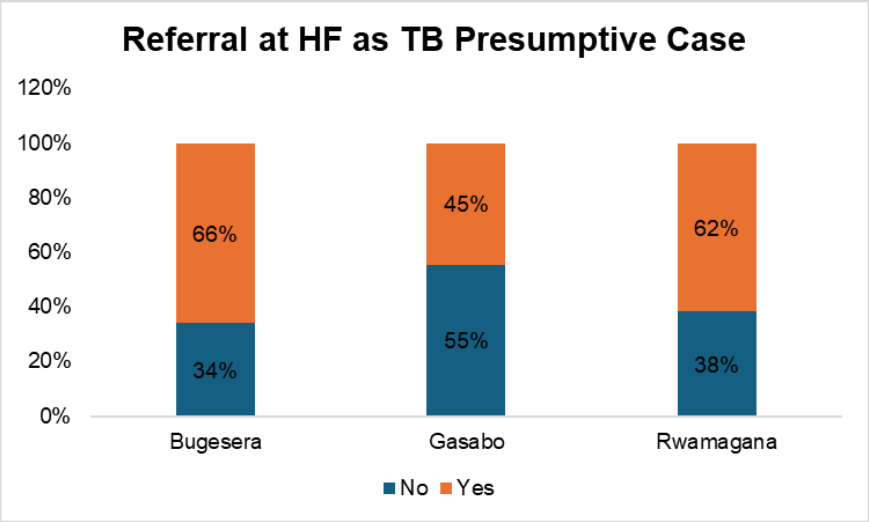

Figure 29 - Graph represents Referral Of TB Presumptive Cases To Health Facilities

There were variations in contact tracing undertaken for those who tested positive for TB in all districts, with a majority number (55% (N=50) Bugesera, 58% (N=163) Gasabo, Rwamagana 46% (N=119)) reporting that no contact tracing was undertaken.

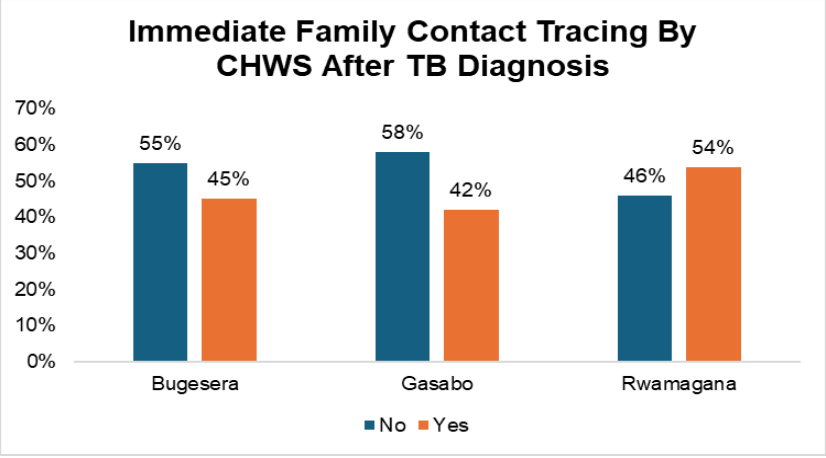

Figure 30 - Graph represents Family Contact Tracing By CHWS After TB Diagnosis

Fewer TB-affected persons reported having community members receiving TPT, with only 38% (N=35), 33% (N=92) and 39% (N=92) in Bugesera, Gasabo, and Rwamagana districts reporting that their families were approached.

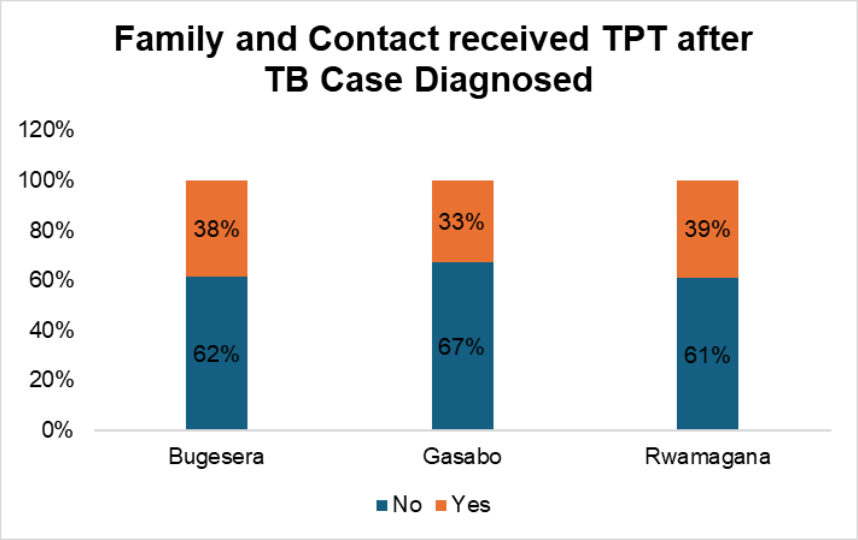

Figure 31 - Graph represents TPT Provision To Family And Community Members After TB Diagnosis

An average number of those who tested TB positive reported being counselled to test for HIV with 36% (N=33), 54% (N=153) and 37% (N=97) in Bugesera, Gasabo, and Rwamagana districts, respectively, reporting that they were not counseled.

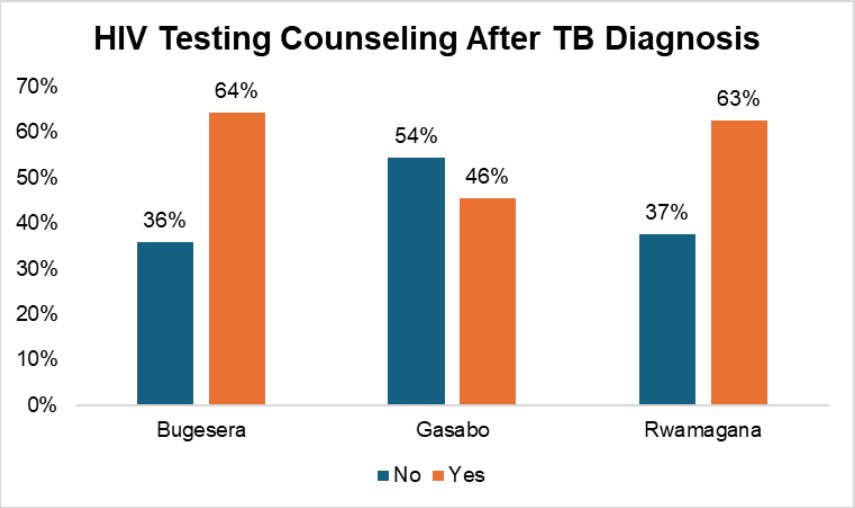

Figure 32 - Graph represents HIV Testing Counseling After TB Diagnosis

Across districts, community-level TB adherence support from CHWs and peers is inconsistent and often insufficient. In Bugesera, 73% (N=102) of TB patients reported receiving *no* adherence support, only 17% (N=24) received support, and 10% (N=14) did not know. In Gasabo, support was more balanced, with 47% (N=187) reporting they *did* receive support and 43% (N=174) reporting they did not, while 10% (N=41) were unsure. In Rwamagana, 45% (N=155) did not receive support, 31% (N=109) did, and 24% (N=84) were unsure.

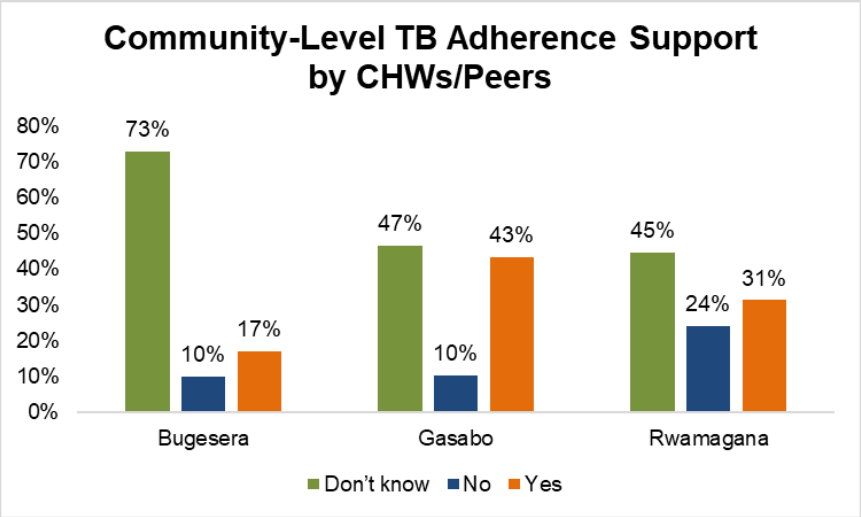

Figure 33 - Graph represents Community-Level TB Adherence Support By CHWS/Peers

TB affected persons also reported that there existed limited CHWs/peer educators or TB survivors who undertake TB screening and referrals at community level where 52% (N=73), in Bugesera, 45% (N=180) in Gasabo, and 29 % (N=102) in Rwamagana district reported that they didn't exist.

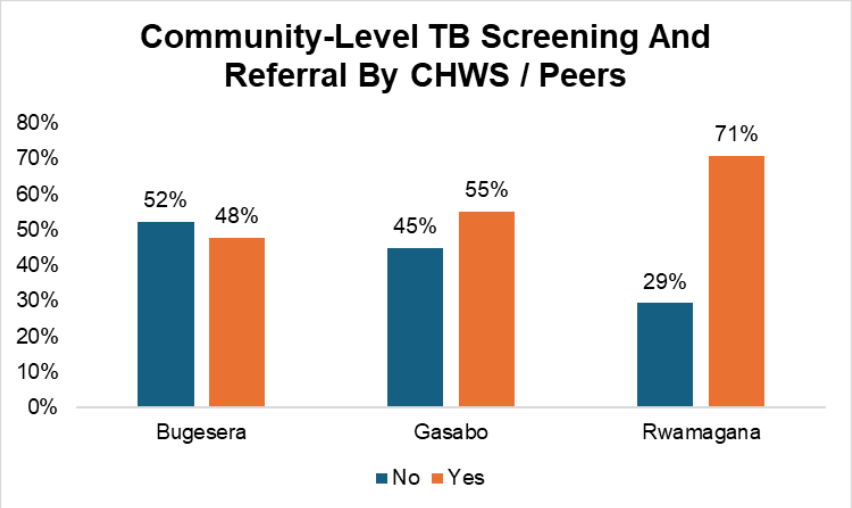

Figure 34 - Graph represents Community-Level TB Screening And Referral By CHWS / Peers

Lastly, TB-affected persons in Bugesera, Gasabo, and Rwamangana district who reported ever receiving TB literacy while a significant percentage 71% (N=71), 68% (N=273), 51% (N=179) respectively did not.

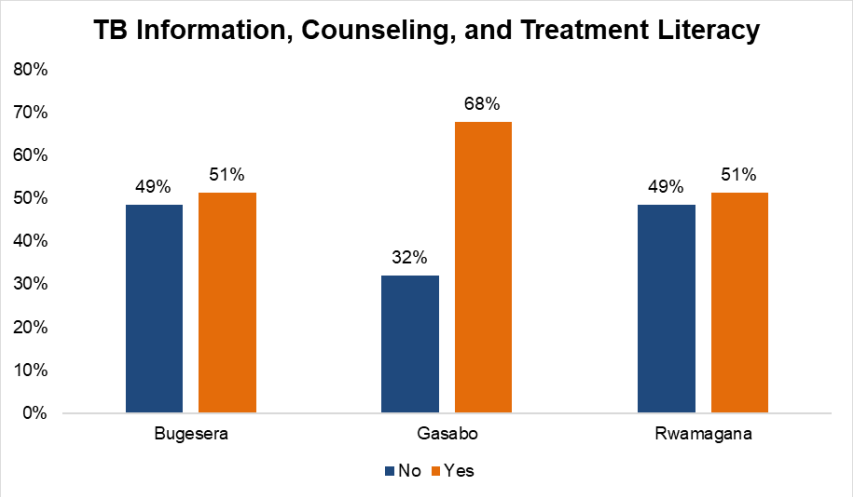

Figure 35 - Graph represents TB Information, Counseling, and Treatment Literacy

8.2.3 Identified Issues and Recommendations for the Improvement of TB Services

The findings generated from the iCLM were used to generate key priority issues that should be addressed to facilitate improvements in the delivery of TB services, notably the availability, accessibility, acceptability, and quality of health service. The advocacy/identified issues are supported by recommendations of how best the identified issues can be addressed.

(a) Identified Issues for facility-based TB service delivery

- HIV–TB co-infection testing is not consistently provided across all districts. Many individuals affected by TB are not being counselled or referred to undergo HIV testing, which limits early detection and integrated management of co-infections
- Coverage of TB community interventions remains low, with most TB screening and testing occurring only at health centers. The limited engagement of community health workers (CHWs), TB survivors, and peer educators at both community and health facility levels reduces support for TB screening, service navigation and early case detection
- Contact tracing for families of persons testing positive for TB is inadequately conducted across all districts. Limited contact tracing reduces early identification of TB cases, delays treatment initiation and increases the risk of ongoing transmission within households and communities.
- Uptake of TB preventive therapy (TPT) is low across all districts, limiting the effectiveness of TB prevention efforts and increasing the risk of TB transmission and disease progression among high-risk populations
- TB-affected individuals have limited access to treatment literacy through information sharing and counselling. This gap reduces adherence to treatment, delays recovery and affects TB prevention and control efforts

❖ Recommendations for facility-based TB service delivery

- Ensure that all TB-affected persons are routinely counselled and offered HIV testing as part of integrated care. This requires reinforcing provider adherence to HIV–TB testing protocols, training healthcare workers on co-infection management and monitoring service delivery to improve early detection and linkage to appropriate treatment

- Expand community-level TB interventions by actively involving CHWs, TB survivors, CSOs and peer educators in outreach, screening and patient navigation.

- Strengthen collaboration between health facilities and community actors to improve early TB detection, enhance service accessibility and ensure comprehensive support for persons at risk or affected by TB

- Strengthen TB contact tracing efforts by ensuring that all household members of TB-positive persons are systematically identified, screened, and linked to care. This requires training and supporting community healthcare workers (CHWs), Peer Educators (PE) and CSOs integrating contact tracing into routine TB services and monitoring implementation to ensure comprehensive coverage

- Strengthen TB preventive therapy programs by ensuring all eligible persons are offered and supported to initiate and complete TPT. This includes enhancing community awareness, training healthcare providers on TPT guidelines, and monitoring uptake and adherence to improve TB prevention outcomes

- Enhance TB treatment literacy by providing structured counselling and comprehensive information to all TB-affected persons. This should include training healthcare providers, CHWs, PE and CSOs to deliver clear guidance on treatment adherence, side effect management, and preventive practices to improve health outcomes and reduce transmission.

(b) Identified Issues for community-based TB service delivery

- The scope of community-based TB programs remains limited.
    - Most TB screening occurs at health centers rather than in the community;
    - Contact tracing is inconsistently conducted;
    - Districts have limited community-based TB service providers to support adherence and follow-up.

These gaps reduce early detection, compromise treatment support and limit the effectiveness of TB control efforts.

- Access to TB awareness and treatment literacy is limited among TB-affected persons. Many reported not receiving essential information and counselling, which affects TB prevention efforts, treatment adherence and successful completion of therapy

❖ Recommendations for community-based TB service delivery

- Expand and strengthen community-based TB programs by increasing the presence of trained TB service providers, including CHWs, Peer Educators and CSOs at the community level.
- Integrate systematic contact tracing, community screening, and adherence support into routine TB services to improve early case detection, treatment completion and overall TB control outcomes
- Strengthen counselling, support and referral pathways for TB–HIV co-infection testing among TB-affected persons. This includes ensuring that all TB patients are routinely offered HIV testing, supported through the testing process and linked to appropriate care and treatment services for both TB and HIV, thereby improving early detection and integrated management of co-infections.
- Enhance TB awareness and treatment literacy by providing structured education and counselling to all TB-affected persons. This includes training Community healthcare workers (CHWs), Peer Educators and CSOs to deliver clear guidance on TB prevention, treatment adherence and side-effect management, thereby improving treatment success, completion rates and overall TB control outcomes
- Review and strengthen the community TB programming to strengthen TB screening, community led contact tracing, mobile and outreach services for TB screening and testing in TB high burden districts; and use of TB survivor groups to support community-based treatment literacy and adherence support

(c) Recommended Priority Actions for Improvement of Health Services

- Develop and implement a tailored refresher training program for health facility staff, with a specific emphasis on improving TB case finding through community-level screening, strengthening contact tracing and supporting HIV testing among TB-affected persons to enhance early detection and integrated care

- Conduct trainings for CSOs, Peer Educators and refresher training for Community Health Workers (CHWs) on TB, focusing on case identification, community-based screening, contact tracing and referral mechanisms to strengthen TB detection and management at the community level

- Conduct targeted campaigns to raise awareness of TB, emphasizing the use of Tuberculosis Preventive Therapy (TPT), and promoting community-level screening, testing and contact tracing to enhance early detection, follow up and prevention

- Review and strengthen community TB programming to enhance TB screening, community-led contact tracing and the provision of mobile and outreach TB services in high-burden districts

- Engage and initiate TB survivor groups as TB champions to strengthen community-based treatment literacy and provide adherence support enhancing patient outcomes and community engagement in TB care

8.3 MALARIA

8.3.1 Facility Based Service Delivery of Malaria Services

In Rwanda, Malaria services at health facilities are delivered in strict accordance with the national treatment guidelines, which emphasize prompt diagnosis and effective treatment. Diagnosis is primarily confirmed using either Rapid Diagnostic Tests (RDTs) or microscopy before any treatment is administered. For uncomplicated Malaria caused by Plasmodium falciparum, the first-line treatment is Artemisinin-based Combination Therapy (ACT), specifically Artemether-Lumefantrine, provided free of charge. Severe Malaria cases are hospitalized and treated with injectable Artesunate, followed by a full course of ACT once the patient can tolerate oral medication. This follows national clinical guidelines and standard facility practice.

The following insights summarize Malaria service delivery for Vulnerable population and high-risk groups at health facility level across the three iCLM pilot districts. These vulnerable population and high-risk groups include Female Sex Workers (FSWs), Adolescents (Youth), Children under five years, Person with disability, individuals working in mining and rice farming, pregnant women, and clients and staff of hotels and lodges, students in boarding schools, fishermen.

When asked if they get the services they sought, majority of service users reported they received the Malaria services they expected. Bugesera scored the highest with 93%(N=2065), followed by Rwamagana with 91%(N=1248) while Gasabo was slightly lower at 89%(N=2065). While 7% (N=154),11% (N=395) and 9% (N=122) In Bugesera,Gasabo and Rwamagana respectively felt their expectations weren't met.

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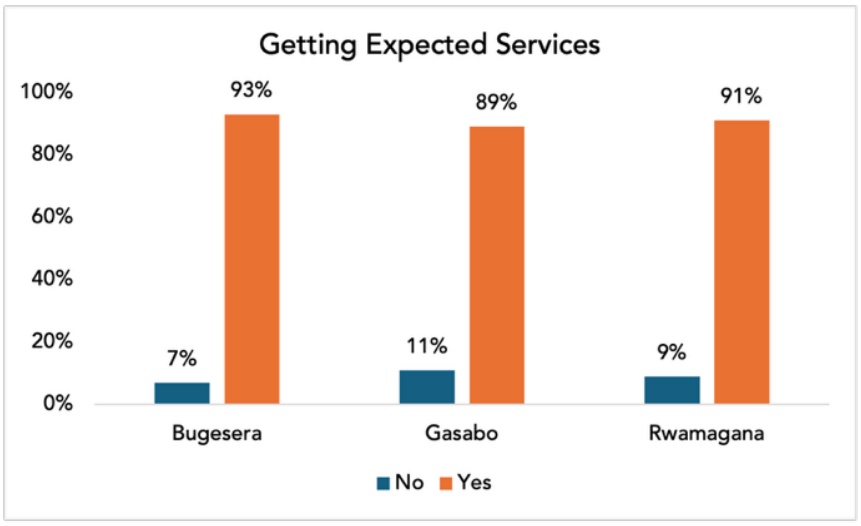

Figure 36 - Graph represents Getting Expected Services

Most service users attending health facility were tested for Malaria at the health facility before treatment: Bugesera 94% (N=2093), Gasabo 90% (N=3275), Rwamagana 85% (N=1169). The gap is still present in Rwamagana, 15% (N=201), Gasabo 10% (N=349) and Rwamagana 6% (N=126) Where service users reported not being tested, uncovering test-before-treat concept gap.

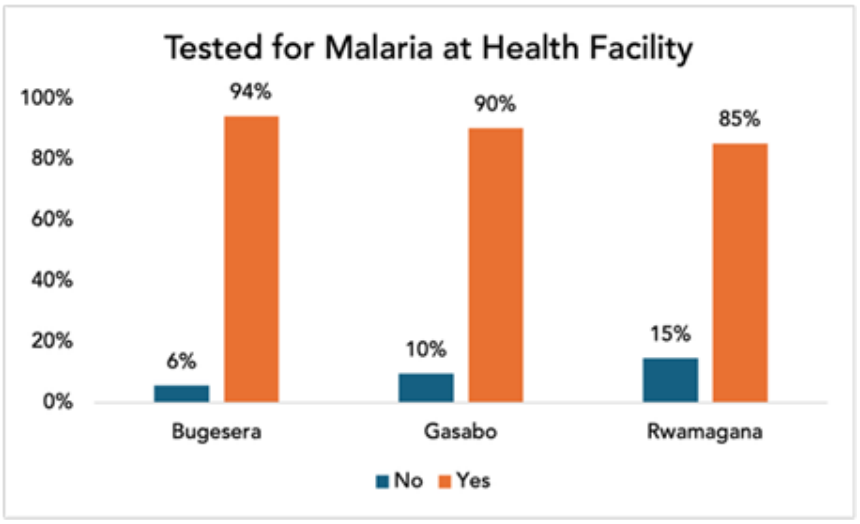

Figure 37 - Graph represents Testing for Malaria at Health Facility

In terms of treatment after testing positive for Malaria,reported treatment rates are 72% (N=1590) in Bugesera,74% (N=2664) in Gasabo, and 63% (N=858) in Rwamagana. But there's a noticeable drop-off, where in Bugesera 28%(N= 629), Gasabo 26%(N=960) and Rwamagana 37%(N= 511) did not receive treatment at the point of care

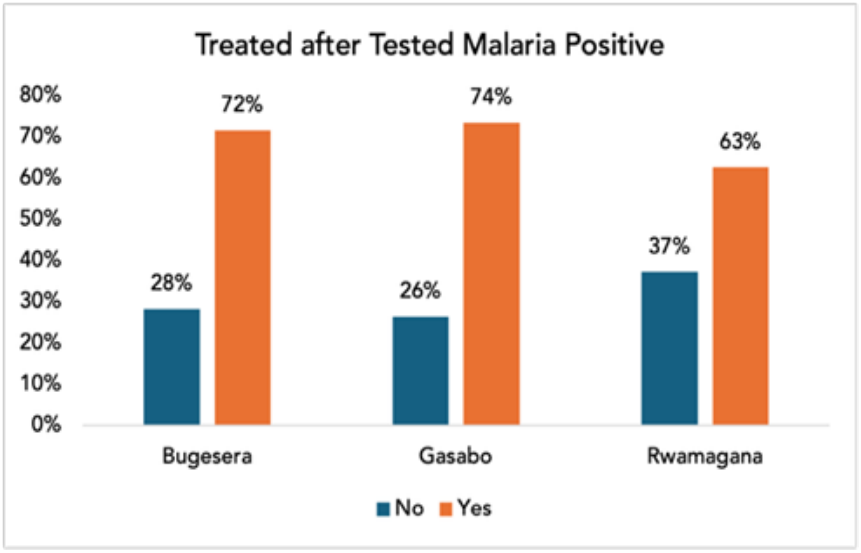

Figure 38 - Graph represents Treated after Tested Malaria Positive

Across all three districts, less than half of service users recall receiving Malaria messages at the point of care: Bugesera 39% (N=875), Gasabo 45% (N=1621), and Rwamagana 45% (N=622). That means 55-61% of service users leave health facilities without brief exposure to IEC materials on key Malaria topics (when to test, correct ACT dosing, LLIN/IRS use, danger signs, and when to return).

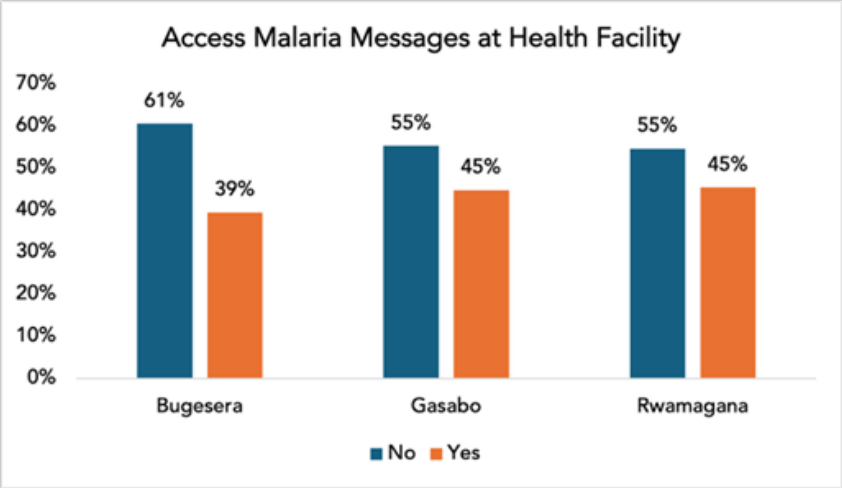

Figure 39 - Graph represents Access Malaria Messages at Health Facility

8.3.2 Community Based Service Delivery of Malaria Services

In Rwanda, community-level Malaria treatment is a cornerstone of the national strategy, extending life-saving services directly to villages through a network of trained Community Health Workers (CHWs). These CHWs are equipped with Rapid Diagnostic Tests (RDTs) to confirm Malaria diagnosis on the spot. For patients who test positive for uncomplicated Malaria, CHWs immediately provide the first-line Artemisinin-based Combination Therapy (ACT), Artemether-Lumefantrine, free of charge. They administer the first dose under direct observation and provide clear instructions for the remaining doses. CHWs are strictly trained to recognize danger signs indicating severe Malaria or other illnesses; in such cases, they do not provide treatment but instead promptly refer the patient to the nearest health facility with a referral note, ensuring a seamless continuum of care from the community to the formal health system. Exclusively, it is designated that 85% of all Malaria cases should be treated at the community level by CHWs, underscoring a need to strengthen community-level Malaria services delivery.

The following are the insights delivered from the iCLM implementation in the three districts as per the Malaria services provision at the community level:

Community awareness is strongest for Malaria diagnosis and treatment, but it varies by district. When asked about Malaria services available at the community level, Bugesera leads in knowing where to get a diagnosis and treatment (both 43% (N=400;402 respectively)), followed by Gasabo (39% (N=331) diagnosis; 33% (N=279) treatment), while Rwamagana lags in treatment awareness (8% (N=35)) despite having solid diagnosis awareness 37% (N=165). Routine Malaria control messages are rarely recalled (Gasabo: 13% (N=111), Bugesera: 3% (N=24), Rwamagana: 2% (N=9)). The IRS is widely recognized in Rwamagana 35% (N=160), compared with Bugesera (10% (N=92)) and Gasabo (1% (N=5)). In short, people know where to test and often where to treat, except in Rwamagana, but most are not hearing regular prevention messages, and the IRS.

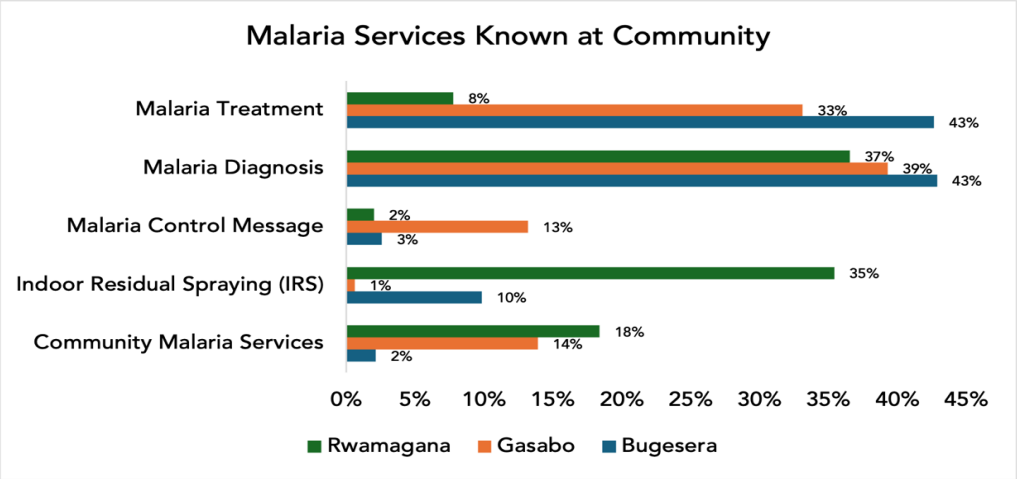

Figure 40 - Graph represents Malaria Services known at Community

Most service users at the community level were tested for Malaria, but a fewer number did not receive treatment after a positive test, especially in Rwamagana. Testing was highest in Bugesera (100% (N=963)), followed by Gasabo (95% (N=809)) and Rwamagana (87% (N=402)). Treatment among those positive dropped to 91% in Bugesera, 87% in Gasabo, and just 63% in Rwamagana. In short, case detection at community level is strong, but there's a clear diagnosis-to-treatment gap, largest in Rwamagana (about 1 in 4 positives not treated). Programmatically, prioritize Rwamagana for CHW Malaria commodities re-stocking (RDTs/ACTs) and enforce same-day treatment for all RDT-positive service users.

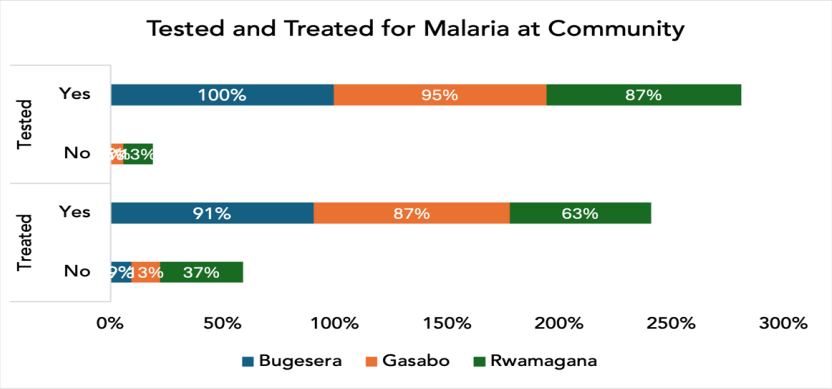

Figure 41 - Graph represents Malaria Services known at Community

Most service users at the community level reported they received the Malaria services they expected. Bugesera scored the highest at 99% (N=945), followed by Gasabo at 96% (N=822), while Rwamagana was lower at 89% (N=412). In short, community service availability is very strong overall, but roughly 1 in 10 service users in Rwamagana still feel their expectations weren't met, flagging a need to meet service users' expectations in Malaria service delivery.

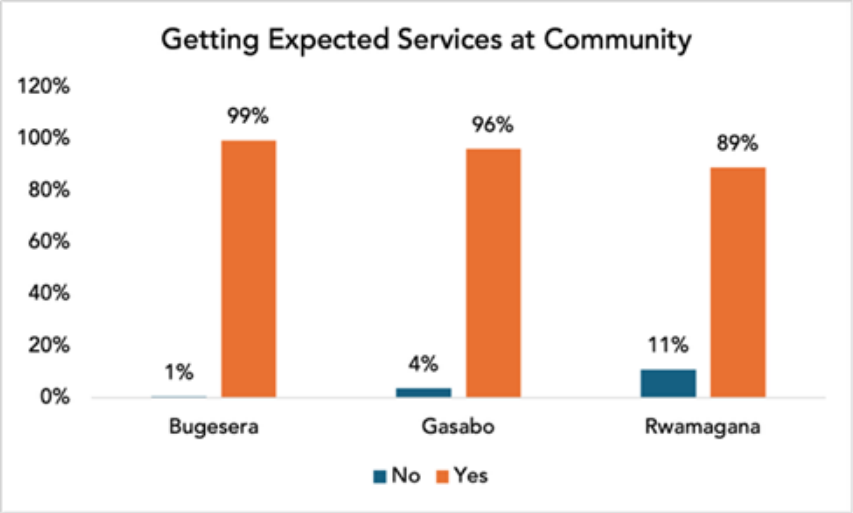

Figure 42 - Graph represents Malaria Services known at Community

Malaria commodities stockouts and shortages are the main reason community members of high-risk groups miss community Malaria treatment, with pediatric gaps most acute. In Rwamagana, 75% (N=3) cited pediatric ACT stockouts and 25% (N=1) adult stockouts. In Gasabo, 60% (N=29) pointed to pediatric stockouts, 25% (N=12) to adult stockouts, and 15% (N=7) said drugs weren't covered by CBHI. In Bugesera, 64% (N=16) reported adult ACT stockouts and 32% (N=8) pediatric, with only 4% (N=1) mentioning CBHI coverage.

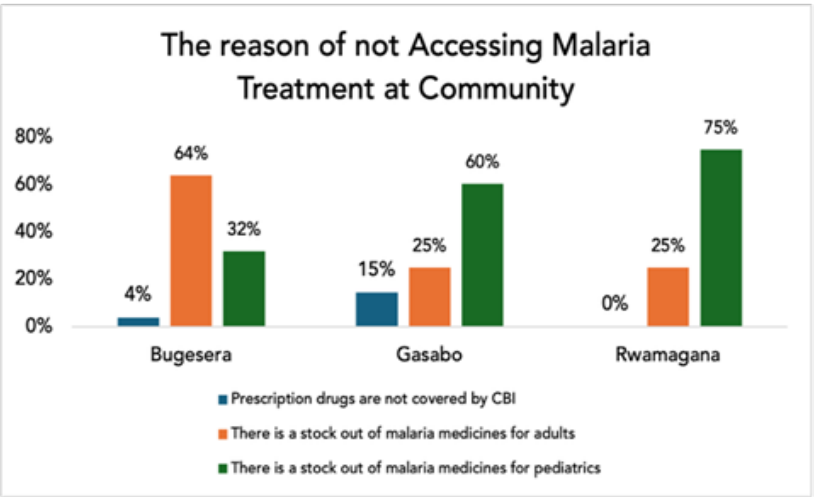

Figure 43 - Graph represents Malaria Services known at Community

Turnaround is fast, but many results are being read too early, which risks accuracy. In Bugesera, 45% (N=431) of results were read <15 minutes. In Gasabo, the pattern is more pronounced as 57% (N=476) <15 minutes, only 26% (N=216) in the recommended window. Rwamagana shows 52% (N=211) <15 minutes. Because most Malaria RDTs should be interpreted between 15 and 30 minutes, reading before 15 minutes can produce unreliable results (false negatives/positives), leading to missed treatment or unnecessary ACT use.

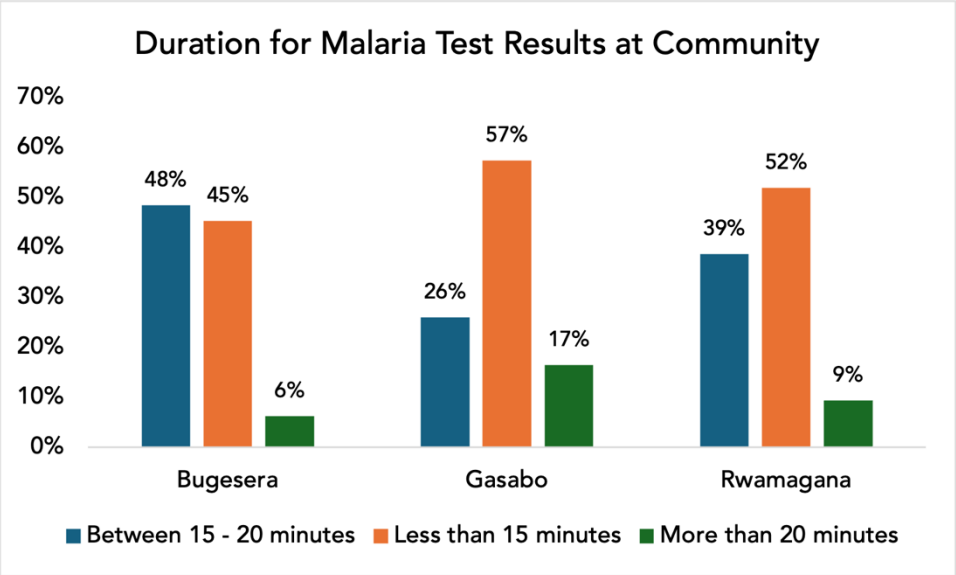

Figure 44 - Graph represents Malaria Services known at Community

At community level, most out-of-pocket spending is tied to diagnosis and treatment rather than referrals or repellents. About half of service users in Gasabo (52% (N=269)) and Rwamagana (50% (N=13)) reported paying for Malaria diagnosis, compared with a much lower 25% (N=149) in Bugesera. For treatment, the picture flips: Bugesera shows the heaviest payment burden at 73% (N=429), while Gasabo (47% (N=239)) and Rwamagana (46% (N=12)) are roughly half. Payments for mosquito repellents are minimal (≈0–1% (N=4-8)), and referrals are almost never paid for (only 4% (N=1) in Rwamagana). In short, community costs concentrate on care itself, especially treatment in Bugesera and diagnosis in Gasabo and Rwamagana, highlighting where financial protection and commodity availability need the most attention.

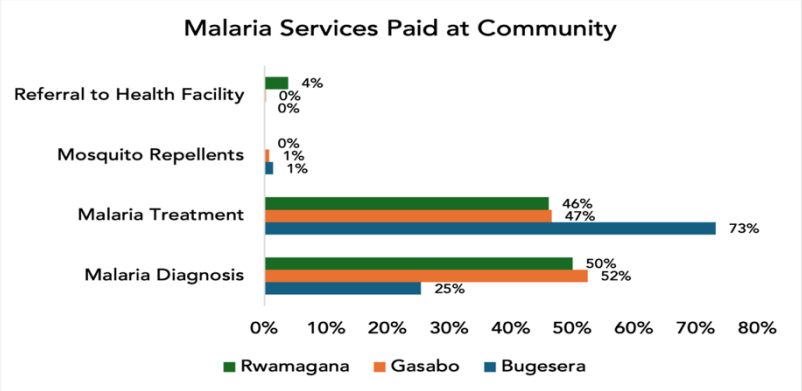

Figure 45 - Graph represents Malaria Services known at Community

Majority service users reported their results were explained, but consistency varies by district. Bugesera is near universal (99% (N=)940), Gasabo is strong (93% (N=791)), and Rwamagana trails (86% (N=395)), meaning about 1 in 7 service users in Rwamagana left without a clear explanation. Explaining results is key for correct care-seeking and ACT adherence.

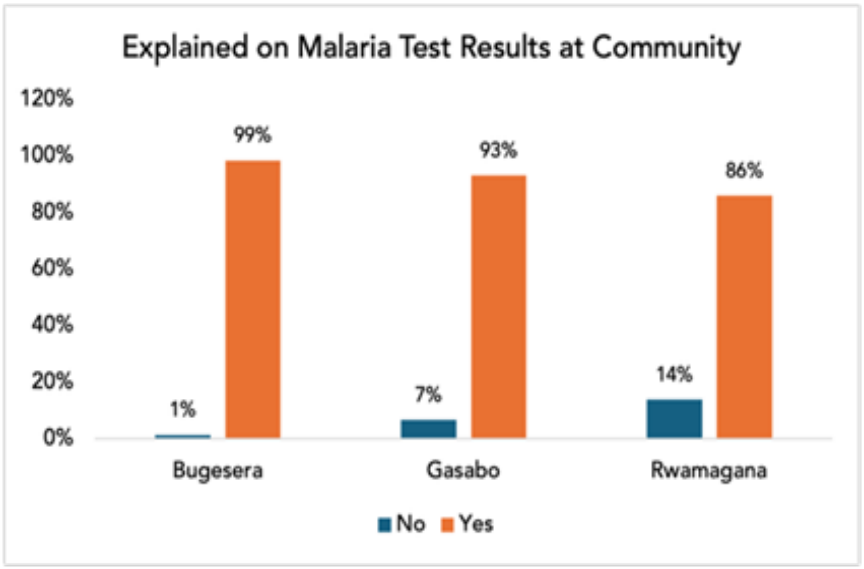

Figure 46 - Graph represents Malaria Services known at Community

Most community service users reported they were told how to take their Malaria medicines, but the quality of counselling varies by district. Bugesera performed best, with 94% (N=893) reporting they received clear instructions (only 6% (N=62) did not). Gasabo was slightly lower at 88% (N=750) yes and 12% (N=98) no. Rwamagana lags behind, only 68% (N=312) received dosing guidance while 32% (N=148) did not, meaning about one in three patients there leave without proper instructions.

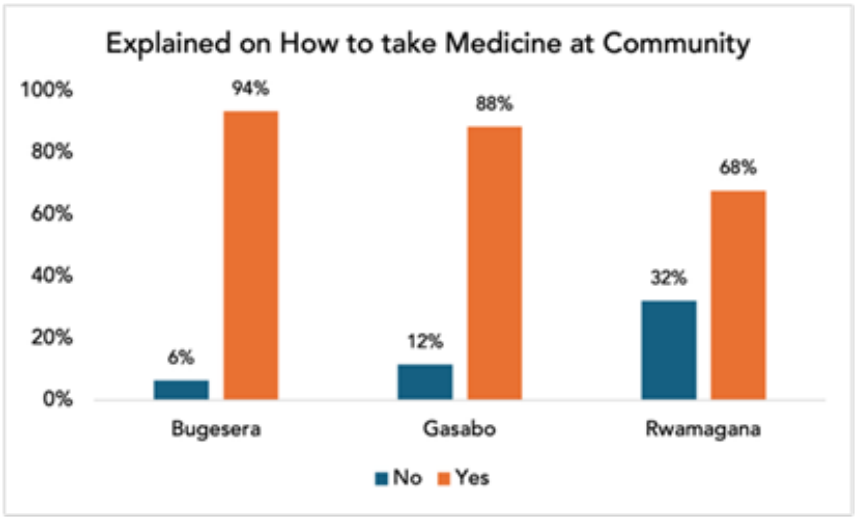

Figure 47 - Graph represents Malaria Services known at Community

1.3.3 Identified/Advocacy Issues for the Improvement of Malaria Services

a. Identified/Advocacy issues and recommendations for facility-based Malaria Service delivery

The delivery of Malaria services at the health facility level in Rwanda is largely standardized through national guidelines, yet the iCLM findings reveal critical gaps in implementation that hinder optimal service delivery and client outcomes.

- Inconsistent application of the test-before-treat policy,
- High drop-offs in treatment following a positive diagnosis,
- Financial barriers that limit access to malaria treatment services.
- Low retention of malaria-related health messages among clients which underscores a missed opportunity for education and prevention at the point of care, highlighting the need for strengthened communication and client engagement strategies.
- While malaria testing rates are generally high, adherence to the test-before-treat policy is inconsistent. This may create a risk of clinical mismanagement
- **More alarming:** There is a significant diagnosis-to-treatment gap in malaria care, where a significant proportion of patients who test positive do not receive treatment at the point of care. This gap is particularly pronounced in certain districts, creating serious risks for patient health and effective malaria control
- Heavy reliance on out-of-pocket payments in certain districts creates a direct barrier to malaria care and undermines financial risk protection
- A substantial proportion of clients leave health facilities without recalling malaria education, missing critical information on drug adherence, danger signs, and preventive measures such as LLINs and IRS.

b. Recommendations for Identified Issues for Health Facility-Based Malaria Service delivery

- First, there must be a reinforced commitment to strict adherence to national treatment guidelines. This should be operationalized through enhanced supportive supervision and mentorship programs for healthcare workers, with a specific focus on enforcing the test-before-treat policy and ensuring immediate provision of ACT for all confirmed cases.
- Enhance client education and communication strategies to ensure malaria-related health messages are effectively delivered and retained at the point of care

- Strengthen health facility follow-up systems, staff accountability, and client education to close the diagnosis-to-treatment gap and improve clinical outcomes

- Enhance health facility processes to ensure all clients receive and understand malaria-related health education before leaving care. This involves equipping all consultation and waiting areas with clear, visual IEC materials and mandating that health workers provide brief, targeted counselling on key Malaria topics before a client departs.

- Implement community outreach and awareness campaigns to reinforce malaria prevention and treatment adherence messages.

- Awareness raising and referral of general population and high-risk groups (easy and hard to reach populations) with Malaria symptoms to CHWs for diagnosis, and treatment to those diagnosed Malaria positive.

- Finally, a robust, data-driven logistics system must be strengthened to prevent stockouts of essential commodities like RDTs and ACTs, ensuring that a positive diagnosis always leads to immediate treatment.

c. Identified/Advocacy Issues and recommendations for Community-Based Malaria Service delivery

- Current malaria supply chain and logistics management systems face gaps in real-time monitoring and proactive resupply, resulting in stock-outs of RDTs, ACTs, and other essential malaria commodities at both community level. Strengthening digital, real-time stock management and data-informed distribution is critical to ensuring uninterrupted service delivery and equitable access to malaria care.
- Gaps in adherence to national malaria guidelines and quality standards such as inconsistent application of the test-before-treat policy, incorrect RDT interpretation, and delays in providing ACT to positive cases. This undermines the effectiveness of malaria care
- Out-of-pocket spending on malaria medicines and commodities limits access to care and undermines financial risk protection, particularly among high-risk populations/groups (Easy and hard to reach high risk groups)
- Low retention of malaria-related information among community members limits awareness of prevention, testing and treatment. This reduces the effectiveness of malaria control efforts
- Stockouts of malaria commodities, especially pediatric ACTs, are the primary driver of untreated malaria cases, with the problem most severe in Rwamagana where the majority of missed treatments result from unavailability of pediatric formulations

d. Recommendations for Identified Issues for community-based Malaria service delivery

- Strengthen the supply chain and logistics management system: Implement a digital, real-time stock monitoring system for RDTs and ACTs and all Malaria commodities at both the health facility and community levels through cEMR system. This system should trigger automatic alerts for low stock levels to enable proactive resupply, with distribution priorities informed by iCLM data to focus on consistently underserved districts like Rwamagana and sectors.

- Enforce strict adherence to national guidelines and quality standards: Develop and implement a nationwide refresher training and mentorship program for healthcare providers, CHWs, CSOs and Peer Educators targeting these specific gaps. Complement this with a structured supportive supervision framework that includes quarterly performance reviews and feedback to ensure consistent adherence to national standards and improved patient outcomes

- Develop a standardized, simplified and targeted package of IEC/BCC materials on malaria prevention, testing, and treatment. Disseminate these materials widely through health facilities, CHWs, Peer Educators, and community structures such as Umuganda, inteko z'abaturage, local radio and bulk SMS campaigns to ensure consistent, repetitive messaging reaches all households and high-risk groups and strengthens community health literacy.
- Prioritize strengthening the supply chain for pediatric ACTs by ensuring consistent stock availability at health facilities and community levels. Implement real-time monitoring and data-informed distribution to prevent stockouts, particularly in high-need districts like Rwamagana, to ensure all children have timely access to life-saving malaria treatment

e. Key Recommended Priority Actions for Improvement of Malaria Services

To achieve a transformative and sustained improvement in Malaria outcomes, advocacy must be channeled into a set of strategic, cross-cutting priority actions. These actions should leverage the iCLM data to drive accountability, system strengthening, and community engagement.

- Strengthen the community-based malaria service delivery system by addressing operational and quality assurance gaps. This includes ensuring uninterrupted availability of malaria medicines and diagnostics, enhancing the capacity of Community Health Workers (CHWs) and health facility staff through targeted training and supportive supervision, standardizing patient counselling and education, and implementing robust monitoring and data-driven feedback mechanisms to improve service quality, effectiveness, and community trust.

- Ensure uninterrupted availability of malaria commodities, with a particular focus on pediatric ACTs, to address the primary cause of untreated cases.

- Strengthen supply chain management through real-time stock monitoring, data-informed distribution and targeted resupply in high-need districts thereby reducing treatment gaps and improving access to life-saving malaria care for children.

- Strengthen diagnostic quality by ensuring adherence to proper RDT reading protocols, including the recommended 15-minute waiting period, to reduce false negatives and positives. Complement this with targeted training, mentorship, and supportive supervision for health facility staff and CHWs, particularly in high-risk districts to close the diagnosis-to-treatment gap and ensure timely and accurate treatment for all malaria-positive cases.

- Enhance the quality of patient-provider interactions and community awareness by standardizing counselling and education practices at health facilities and through Healthcare Providers and CHWs. Ensure all patients receive clear instructions on medication use and explanations of test results to improve treatment adherence and care-seeking behavior. Simultaneously, strengthen community-level health education campaigns to reinforce routine malaria prevention messages, including IRS and other preventive measures, addressing gaps in knowledge and awareness.

- Strengthen system-level support for frontline malaria services by ensuring a consistent and reliable supply of RDTs and ACTs for CHWs. Implement a streamlined, data-informed last-mile supply chain that proactively prevents stockouts of both pediatric and adult formulations, thereby enabling uninterrupted testing and treatment at the community level

- Implement a digital, real-time stock monitoring system for RDTs and ACTs and all Malaria commodities at both the health facility and community levels through cEMR system. This system should trigger automatic alerts for low stock levels to enable proactive resupply, with distribution priorities informed by iCLM data

- Enhance quality assurance in community malaria services through continuous and rigorous training for CHWs. Emphasize strict adherence to correct RDT reading times (15–30 minutes) and ensure comprehensive patient counselling, including clear explanation of test results and proper medication administration to improve diagnostic accuracy, treatment adherence and overall service quality

CONCLUSIONS AND GENERAL RECOMMENDATIONS

The iCLM pilot has generated significant learnings that will inform the future of CLM programing in, and service delivery for HIV, TB and Malaria in Rwanda and beyond. Of importance to note is that whilst the geographical scope of the iCLM pilot, i.e., 12 Health Centres in three districts, was ideal, the broad programmatic scope of the three diseases, coupled with the monitoring of community and facility-based services was significant. This, however, limited the depth in the monitoring of disease-specific feedback from service users, and limitations in data collection where qualitative probes were not processed to better understand the challenges identified.

The iCLM pilot lays a foundation for continued CLM in Rwanda. From its implementation, we thus recommend the following:

1. Review and update the iCLM Model; Tools; iCLM System for HIV, TB and Malaria

- Review and update iCLM Model for HIV, TB and Malaria informed by the pilot phase
- There is a need to review and update the data collection tools, both for HIV, TB and Malaria (English and Kinyarwanda Versions). Data collection tools are revised to generate feedback on prioritized indicators of interest for each disease. Expectations to cover everything, including typical research questions which do not constitute service users feedback aligned to CLM, should be managed.
- There is a need to strengthen the iCLM System (Community data management system) to be more focused and have adequate depth; include Artificial Intelligence and have it connected to other Information Systems from the Ministry of Health for the purpose of data sharing to make informed decisions and real-time response.
- Data analysis, and reporting and feedback loop and the advocacy component processes need to be reviewed and strengthened for timeliness.
- The hosting organization for the iCLM model needs to have dedicated staff following and support the implementation at all levels, including providing real-time on-site support to community monitors, and sifting of feedback as it comes to identify urgent issues that require immediate action.

2. Institutionalize iCLM Data as the foundation for targeted decision-making

- The pilot confirmed iCLM's ability to generate real-time, granular data from both community and facility levels. To maximize impact, Rwanda must formally integrate iCLM data into the national health management information system (HMIS) and mandate its use for programmatic planning and resource allocation.
- Decision-makers at MoH/RBC and in districts should be informed by iCLM data to identify hotspots, understand service delivery bottlenecks and tailor interventions for HIV, TB, and Malaria with precision, moving from blanket approaches to data-driven, targeted action.

3. Invest in a sustained, comprehensive capacity-building and provide enabler package for community monitors

The effectiveness of community monitors is the backbone of iCLM implementation. This pilot phase highlighted the need for continuous skill development. We recommend:

- Establishing a rolling, training program for community monitors that goes beyond initial orientation, incorporating advanced modules on qualitative probing, data ethics, and disease-specific indicators.
- Concurrently, ensuring a comprehensive package of enablers, including technological tools (devices), T-shirts, Badges, Files, Notebooks, Pens, rain jackets/coats….., logistical support, and financial resources, is non-negotiable to maintain a motivated, skilled and effective cadre of community monitors, health facility focal points, district coordinators and program staffs.

4. Establish a robust multi-level and multi-stakeholder collaboration framework

The interconnected nature of health challenges demands an integrated response. A siloed approach will stifle the iCLM's potential.

- We urge the establishment of a formalized coordination mechanism involving ministry leadership, district administrations, health facilities representatives, development partners, Civil Society Organizations, and community representatives affected and or impacted by HIV, TB and Malaria. This framework should meet regularly to review iCLM findings, jointly develop action plans, and collectively address the systemic issues spotlighted by the data, ensuring accountability and shared ownership from the national to the cell level. This goes with operationalizing the existing mechanisms and systems.

5. Strengthen feedback loops and systematize advocacy for accountability

Data collection without issues closure erodes community trust and monitor morale. The pilot identified limitations in following up on qualitative challenges. It is critical to operationalize closed-loop feedback systems where data from communities and health facilities triggers actionable responses from facilities and districts, with communicated results back to the community. Furthermore, the iCLM data must fuel a structured advocacy process at all levels, empowering civil society and community members to use the evidence to advocate for necessary policy changes and resource mobilization.

6. Prioritize strategic investment to scale the iCLM digital infrastructure

The current system has proven its concept; now it requires investment to achieve its full potential. Targeted funding is urgently needed to scale the iCLM's digital backbone, including strengthening the data management platform for advanced analytics and optimizing the Mobile App for data collection to be more intuitive and robust. This investment is foundational for efficiency, data quality, and sustainability, ensuring the system can handle increased data flow

and complexity as it expands. Also, the implementation plan should be scaled from the initial three districts to nationwide coverage.

7. Leverage the iCLM system for pandemic preparedness and community resilience

The existing iCLM infrastructure is a national asset that extends far beyond the three initial diseases (HIV, TB and Malaria). We must proactively adapt the iCLM system to function as a sentinel surveillance network for emerging health threats, such as COVID-19, MPOX, Marburg Virus Disease or future pandemics. By integrating early warning indicators and syndromic surveillance, the iCLM system can become Rwanda's first line of defense, enabling a rapid response and building unparalleled community-level resilience against a wide spectrum of public health challenges.

8. Additional investment in the iCLM system/software

Invest in upgrading and strengthening the iCLM software to enhance real-time data collection, analysis, and reporting across HIV, TB, and Malaria programs. This should include system optimization, integration of AI for predictive analytics, improved interoperability with national health information systems, and automated alerts for stockouts or priority issues. Investments should also focus on user accessibility, capacity building for CHWs, health facility staff, and CSOs, and provision of digital devices to community monitors. Strengthening technical support, sustainability, and ongoing training will ensure the system fully supports data-driven decision-making, program accountability, and timely, evidence-based interventions at individual, community and national levels.

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