Quality Improvement for Comprehensive HIV Cascade

PROGRAM MONTHLY REPORT

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ATTN: COR, Jacqueline Kalimunda

E-mail: jkalimunda@usaid.gov

Submitted by:

Sekai Chikowero, Program Director

Amethyst Technologies, LLC

Email: schikoweo@amethysttech.com

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List of Acronyms

AIDS	– Acquired Immune Deficiency Syndrome
ATL	– Amethyst Technologies, LLC
CBHS	– Community Based HIV Services
CHMT	– Council Health Management Team
DC	– District Council
DMO	– District Medical Officer
EAC	– Enhanced Adherence Counseling
HCW	– Health Care Worker
HIV	– Human Immunodeficiency Syndrome
HVL	– HIV Viral Load
IP	– Implementing Partner
IQC	– Internal Quality Control
PEPFAR	– President's Emergency Plan for AIDS Relief
QI	– Quality Improvement
RHMT	– Regional Health Management Team
RMO	– Regional Medical Officer
SDM	– Service Delivery Model
SOP	– Standard Operating Procedure
SOW	– Scope of Work
TA	– Technical Assistance
TAT	– Turn Around Time
TC	– Town Council
MC	- Municipal Council
HCP	- Health Care Providers
USAID	– United States Agency for International Development

Executive Summary

The Quality Improvement for Comprehensive HIV Cascade is a two years project implemented in Tanzania from 2018 to 2020. The project is implemented by Amethyst Technologies, LLC (ATL) and supported by United States Agency for International Development (USAID) under **contract number AID-621-C-16-00005.**

The initiative is focusing on the provision of technical assistance to PEPFAR implementing partners, CSOs, CHMTs and a total of 118 health facilities across 9 regions. The technical assistance provided to USAID/PEPFAR implementing partners aims to achieve the following objectives:

I. Improve Quality of HIV Testing in Scale up Councils,
II. Increase correct patient stability categorization according to national standards,
III. Improve adherence and retention of clients with HIV, particularly under 25 years of age and
IV. Increase utilization of viral load results by clinicians.

Amethyst Technologies, LLC is using QI approach to improve the current gaps that are negatively affecting provision of quality services along HIV care and treatment cascade. The gaps include inadequate performance standards in rapid HIV testing among testers, non-compliance with the national HIV testing algorithm, non-uniformity in implementation of differentiated HIV care models, high rate of defaulters among children and adolescents and, lastly, inadequate and untimely use of HIV viral load results among clinicians.

The Amethyst team conducted a QI follow up visit from the 29th of April to the 8th of May 2019 to 24 facilities in 6 councils of the Njombe region, they are Njombe TC, Njombe DC, Wangin'gombe DC, Makambako TC, Ludewa DC and Makete DC *(Annex 1: List of Sites and Councils Visited in the Njombe Region).*

The follow up results revealed that there is a noticeable improvement in indicator performance at some of the visited facilities. The indicators that performed well include compliance with the National testing algorithm, internal quality control (IQC), stability categorization and provision of multi-month ART. Some of the factors that contributed to the good performance of these indicators include:

- Regular internal review and supervision of testing points by laboratory personnel
- Improved TAT for HVL results that contributed to increased number of stable client's categorized and provided with multi month ARV

Indicators that were not performing well in the visited facilities were: HIV index testing of newly enrolled clients, ART adherence and retention of adolescents and pediatrics, and initiation of enhanced adherence counseling (EAC) sessions among clients with high HIV viral load (HVL).

Challenges that contributed to poor performance of these indicators are:

- Inadequate reach of index clients for HIV testing (inadequate communication due to inaccessibility of phones, clients' location, long distances, poor/lack of disclosure)
- Adolescent friendly services are not provided as per standards (health education is not provided following age categories)
- Adolescents above 5 years are categorized but not provided with 3 months of ARVs
- Clients with high HVL are not immediately traced for EAC initiation
- Incomplete documentation and updating of clients' information in the EAC registers
- Data mismatch between HVL and EAC registers

There are noticeable efforts in place to address cited challenges including elicitation of index partners and biological children, use of HBC providers to track defaulters and index clients as well as establishment of HVL testing within the region.

The Amethyst team provided mentorship sessions to HCPs to improve indicator performance, emphasizing on index testing elicitation and tracking of index clients, tracking of defaulters using HBC providers, use of appointment and tracking registers and timely initiation of EAC sessions. The mentorship emphasized the proper documentation of HVL and EAC registers in addition to tracking of clients with high HIV viral load.

Emphasis was placed on the R/CHMT and IP to follow up on the implementation of the QI action plan and indicators performance at each facility during their routine supportive supervision.

Acknowledgements

This Monthly Program Report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents of the report are the responsibility of the Amethyst Technologies, LLC and do not necessarily reflect the views of USAID or the United States Government.

The Amethyst Technologies, LLC would like to extend its sincere appreciation to the Njombe Regional Medical Officer (RMO) and Regional Health Management Team (RHMT), District Medical Officers (DMOs), Council Health Management Teams (CHMTs), Health Care Workers (HCWs) from Njombe TC, Njombe DC, Makete DC, Ludewa DC, Wangin'gombe DC and Makambako TC, and implementing Partner (USAID Boresha Afya Southern) for graciously working with the Amethyst team.

To all, we are indebted.

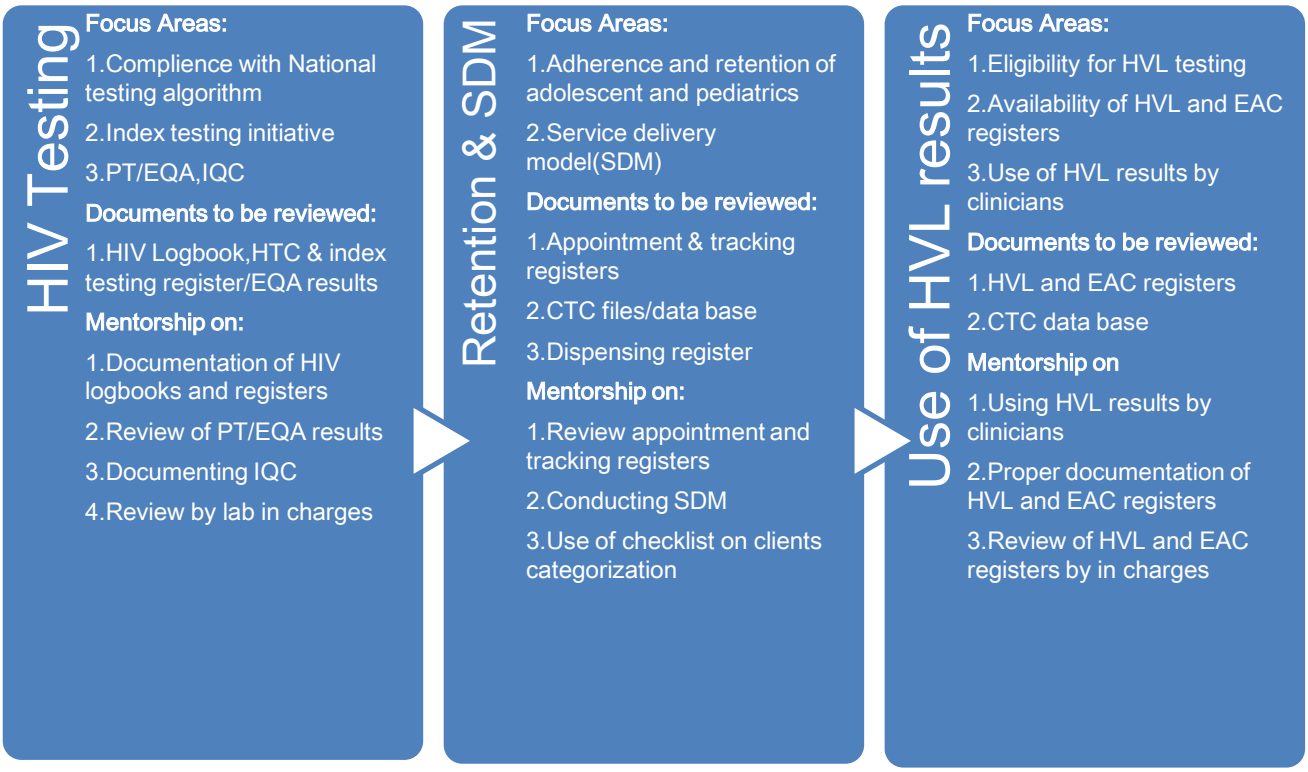
Sekai Chikowero,
Program Director - QI for Comprehensive HIV Cascade

1. Introduction and Background

The Quality improvement for Comprehensive HIV cascade project supports 9 regions of Tanzania mainland. The project focuses on 115 health facilities of Northern and Southern USAID Boresha Afya supported regions. The expected results of quality improvement for comprehensive HIV services are to lead and provide technical assistance to USAID/PEPFAR Implementing Partners (IPs), R/CHMTs and health facilities in the implementation of quality improvement initiatives. The implementation is done through improving Quality of HIV Testing in Scale up Councils, increasing correct patient stability categorization according to national standards, improving adherence and retention of clients with HIV, particularly under 25 years of age, and increasing utilization of viral load results by clinicians.

The above-mentioned objectives are achieved through technical support to USAID Implementing Partners (IPs), Council Health Management Teams (CHMTs), facilities, and communities.

Figure 1: Project Activities Package Summary



2. Results Accomplished

During this reporting period, the Amethyst team conducted the third follow up visit in the Njombe region. The visit was coordinated by USAID Boresha Afya Southern Zone, and

involved representatives from CHMT/RHMT and Health Care Workers/QIT from the 24 visited facilities.

The follow up visit involved the health facilities which are tracking indicators and were mentored in the previous visits. The discussion and reviews conducted during the follow up visit were focusing on key indicators, which are: compliance with the National HIV testing algorithm, IQC, retention among adolescents and pediatrics, stability categorization, provision of multi-month ART appointments and EAC initiations to clients with high HVL. The section below provides a summary of key achievements and challenges observed and discussed during the visit.

2.1. QI Initiatives

QI initiatives aim to capacitate HCPs to have skills to evaluating service delivery at the required standards. The Amethyst team capacitated QI teams to use the initiative for improving quality of health care in their facilities. During this reporting period the follow up visit was conducted to assess the implementation of QI initiatives and the table below summarizes the QI initiative activities observed and action taken during the visit.

Table 1: Status of QI initiatives and what was done during follow up visit

Status of QI initiatives	What was done
❑ 18 (75%) of the sites had conducted and documented QI meetings ❑ 20 (83%) of the sites had roles and responsibilities assigned to QI team members ❑ 18 (75%) of the sites are actively tracking QI indicators and updating SES Journals ❑ There is no evidence of data use in discussing indicators performance	❑ QI teams were mentored on how to document QI meeting minutes ❑ Emphasized on the importance of assigning roles and responsibilities for all QIT members ❑ Mentored on proper documentation of SES journals and arrangement of QI file ❑ Emphasized on the importance of using analyzed data to discuss performance

2.2. Quality of HIV testing

Tested changes that were agreed during the previous mentorship visits have been implemented and brought positive results towards improving the HIV testing services. The HIV testers at different testing points have become familiar with the National HIV testing algorithm, therefore the results are reported and documented properly in HIV logbooks.

Internal quality control is performed on every new lot/batch and on a monthly basis as per the National guideline. However, some of the testing points at Wanging'ombe HC, Makoga HC, Ilembula Hospital, Ikonda Hospital and Lupila HC do not conduct IQC as per the guideline. The laboratory personnel ensure the availability of prepared quality control samples and orient HIV testers on performing the quality control in all the other facilities.

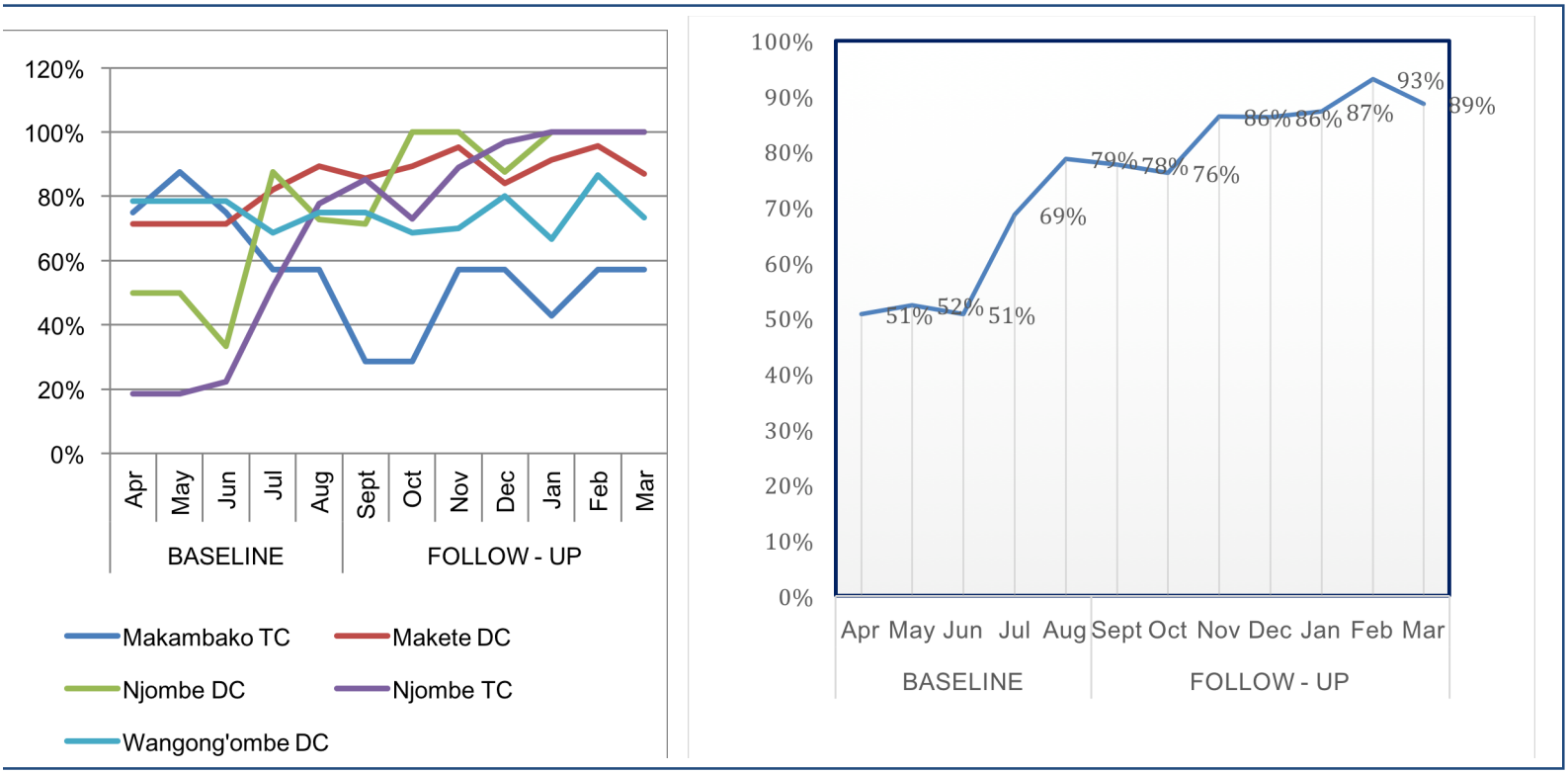


Figure 2: Shows the districts' performance (Left) and the overall regional performance (Right) of compliance with the national HIV testing algorithm by HIV testers

The figure above demonstrates general improvement of the HIV testing points complying with the National HIV testing algorithm in all mentored districts (Left). The improvement ranges from 57% by December 2018 to 100% by March 2019. The regional performance (right) ranges from 86% in December 2018 to 89% by March 2019. The HIV testers have been oriented to conduct HIV test using the National HIV testing algorithm and proper documentation of the results in HIV logbooks.

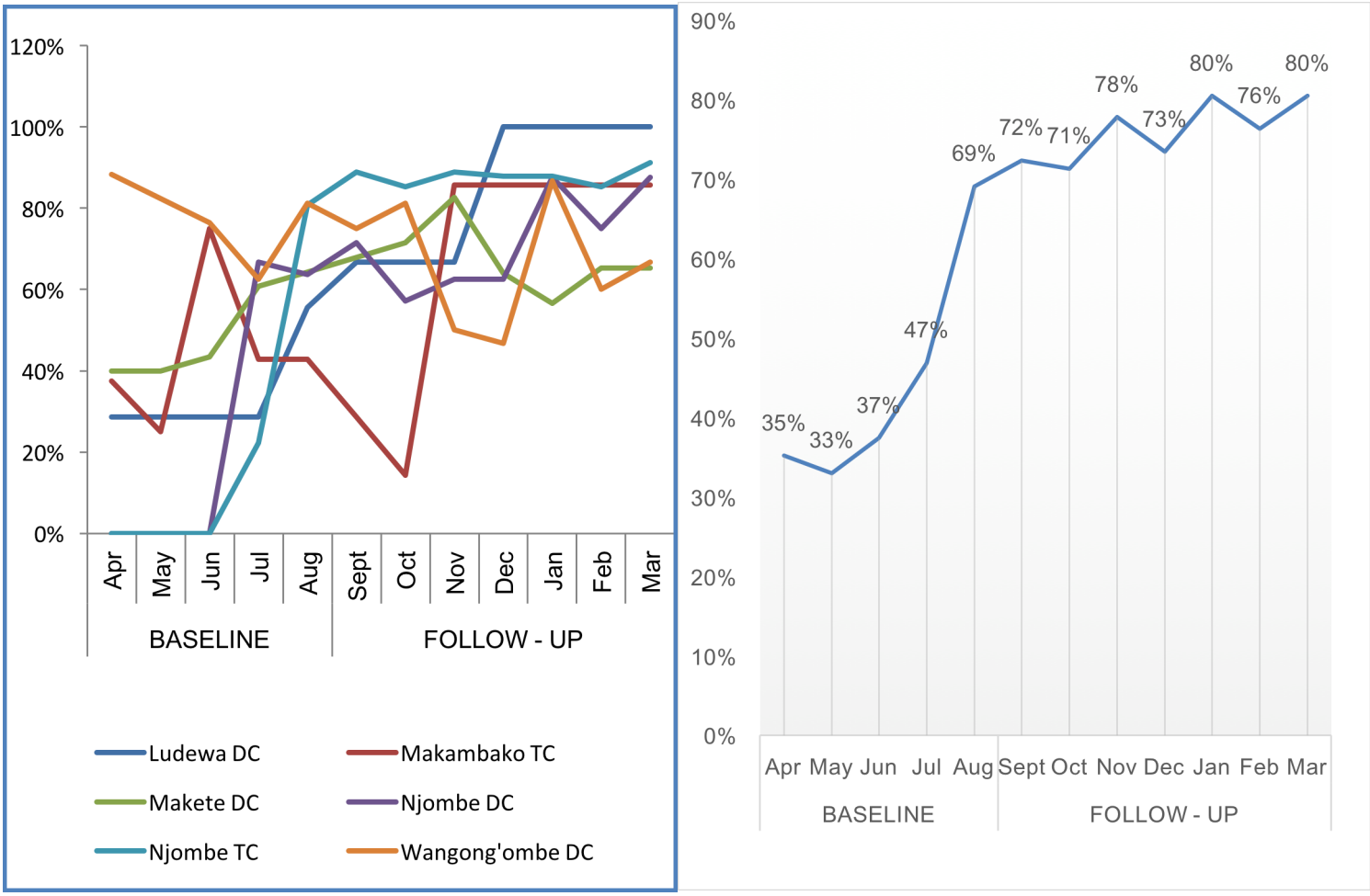


Figure 3: Shows the districts performance (left) and the overall regional performance (Right) of internal quality control.

Generally, there is improvement on IQC from 73% by December 2018 to 80% by March 2019. A great Improvement has been observed at Ludewa District (100%), Njombe TC (91%), Njombe DC (88%) and Makambako TC (86%). Makete DC and Wanging'ombe DC IQC rates were at 65 % and 67% respectively, due to documentation gaps on the HIV logbooks (IQC conducted not documented) and some of the testing points not conducting IQC at all. Mentorship was provided to HCPs on how to conduct the internal quality control and on proper and complete documentation of HIV logbooks.

2.2.3. Index Testing

All facilities have improved on the use of elicitation forms. The elicitation forms are used for listing sexual partners and biological children of index clients. Tracking of elicited index contacts using CBHS providers is done at all facilities. Service providers are

supported by Implementing Partners (IPs) in conducting index testing at community level through outreach services. These efforts have helped to improve index testing performance for clients who are newly enrolled in care at the health facilities demonstrating community-facility partnerships. Overall regional performance of the indicator has improved from 17% in October 2018 to 21% by March 2019 (refer to Figure 4).

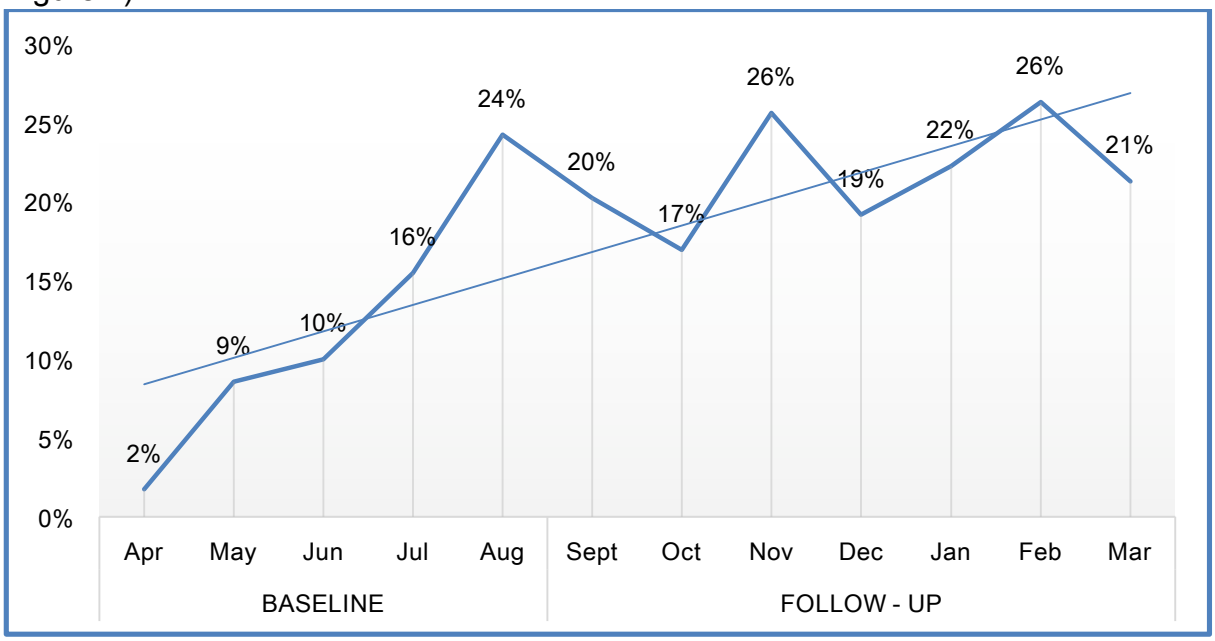


Figure 4: Showing overall regional performance of index testing for newly enrolled clients in the Njombe region.

There are still challenges which face the performance of index testing, such as: a lack of active tracking of index contacts, unwillingness of index clients to reveal their index contacts, and documentation gaps in index elicitation forms. These are the main factors at most of the facilities.

To address the identified challenges facing index testing the following were done and agreed to be done by service providers:

- The Amethyst team mentored service providers on how to document index testing in elicitation forms and HTS registers.
- Using CBHS providers to actively trace elicited sexual partners and biological children of index clients.
- Integrating index testing with outreach services and other programs at community level.
- To scale up best practices learned from best performing facilities, for example as observed at Luponde dispensary.

Best Practice in index testing at Luponde dispensary

Luponde dispensary is doing exceptionally well compared to other facilities in the region. This has been achieved through the support from implementing partners, both Sauti and USAID Boresha Afya. Staff from the facility is supported in reaching elicited index contacts in the community through reimbursement of transport fare and allowances. Moreover, the facility has established a male involvement corner which runs until evening hours. Following the establishment of this corner, the turn up of male partners who come for HIV testing has increased. As a result, the positivity rate from index testing has increased as well. For instance, in March 2019, a total of 14 index contacts were tested and 10 of them tested positive, hence the positivity rate of 71%. The graph below shows progressive improvement from October 2018 to April 2019.

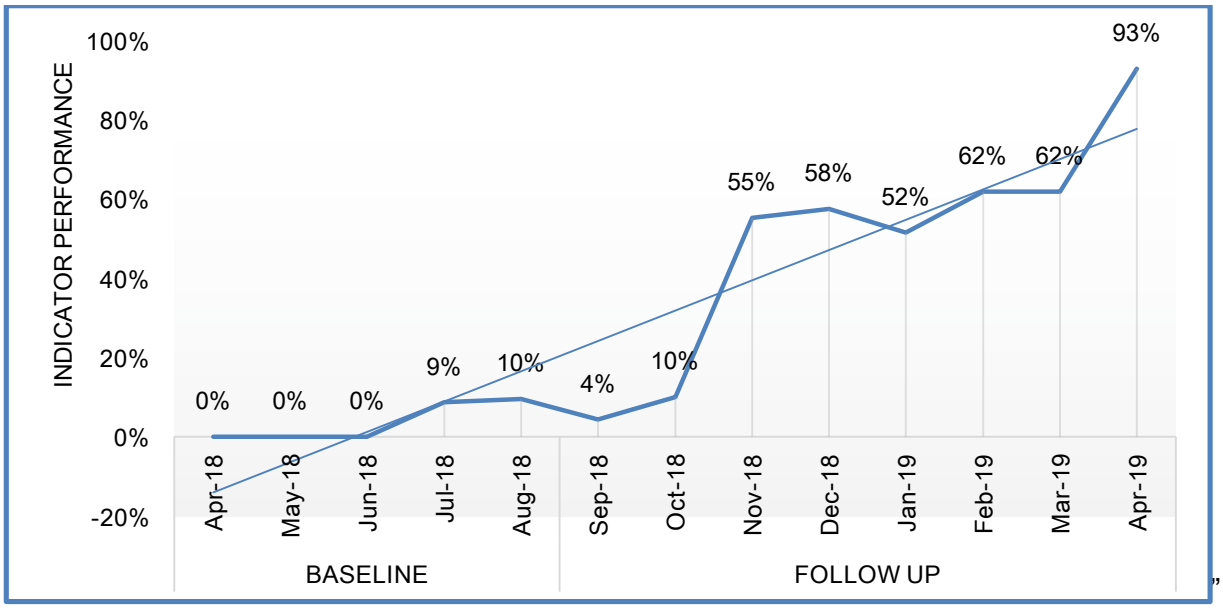


Figure 5: Showing performance of index testing for newly enrolled clients at Luponde dispensary

2.3. Service Delivery Models (SDMs)

In this follow-up mentorship visit, there has been a great improvement in the documentation of the registers that are used to document stable and unstable clients.

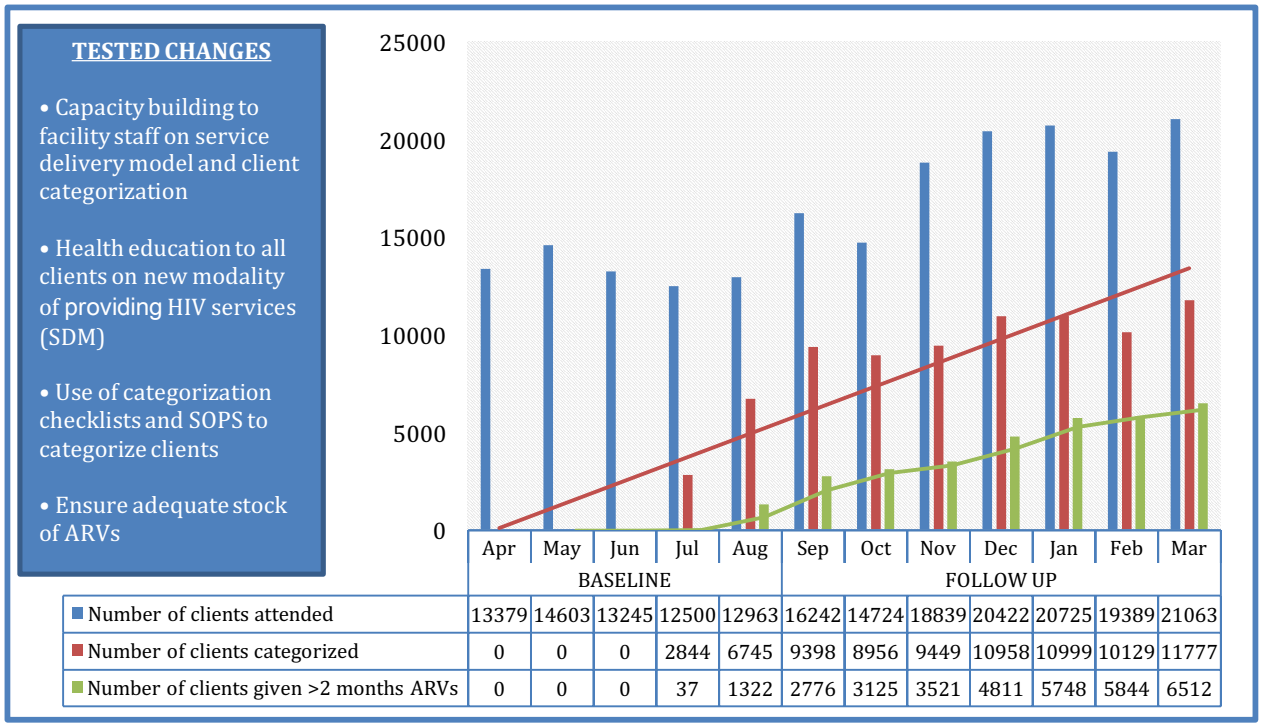


Figure 6: Shows improved facility performance trends of clients' categorization and multi-month drug prescription for 23 health facilities in Njombe region.

Up to March 2019, 89% of clients were documented to be categorized, compared to 86% in December 2018. Both adults and pediatrics> 5 years of age are categorized using SOPs and guidelines except at Kipengere HC, Ikonda Hosp and Lupila HC. The categorized clients were as well separated using different appointment registers except at Kipengere DH and Ikonda Hosp.

Clients who missed their appointments are documented on the "promise to come" registers and contacted before documented on the tracking register. Appointment registers were available at most of the visited sites, except at Kipengere HC, Mlangali HC and Madunda HC which were due to low stock.

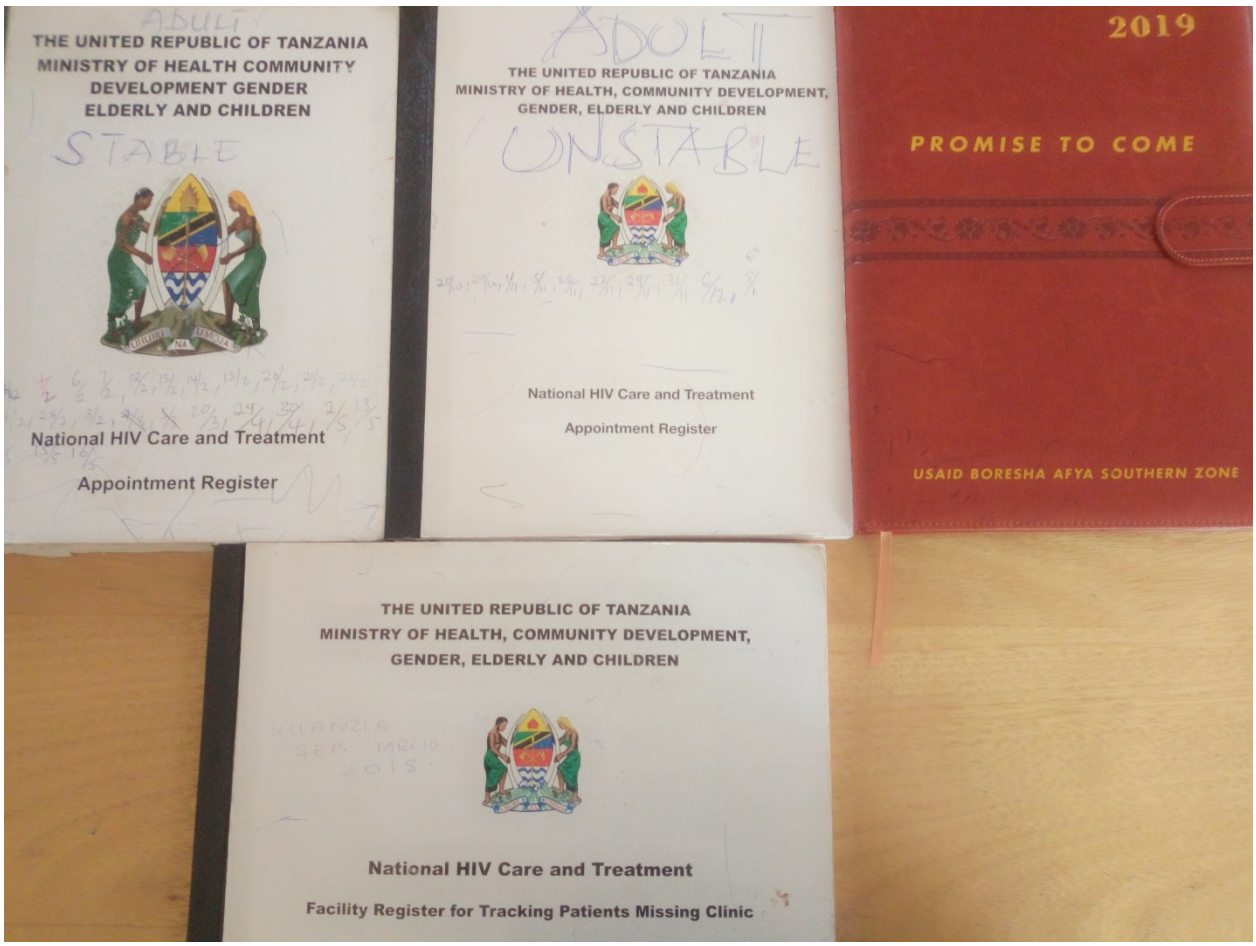


Figure 7: Registers used to document clients according to their stability_ Makambako HC

There is an improved filing system at the facilities, where CTC2 files, registers and other documents are well kept during and after working hours on the table and cupboards respectively.

Figure 8: Arrangement of files according to client's categorization at Wanging'ombe HC

Best practices:

At Wanging'ombe, Makambako HCs, Makete and Ikonda Hospital, HCPs use separate box files to keep the respective clients' files during triaging at the clinic. The model reduces the movements of staff during service delivery as clients find their files already on the table and attended at the respective room.

Figure 9: Use of separate box files to keep clients' files

There is overall improvement in provision of 3 months ART to stable clients from 24% on December 2018 to 31% in March 2019 for all the 24 health facilities in Njombe region.

Great improvement has been observed at Makambako HC, from 38% in Dec 2018 to 76% by April 2019 and Mlangali HC from 39% in Dec 2018 to 68% by March 2019 as shown in the Figure 10 below.

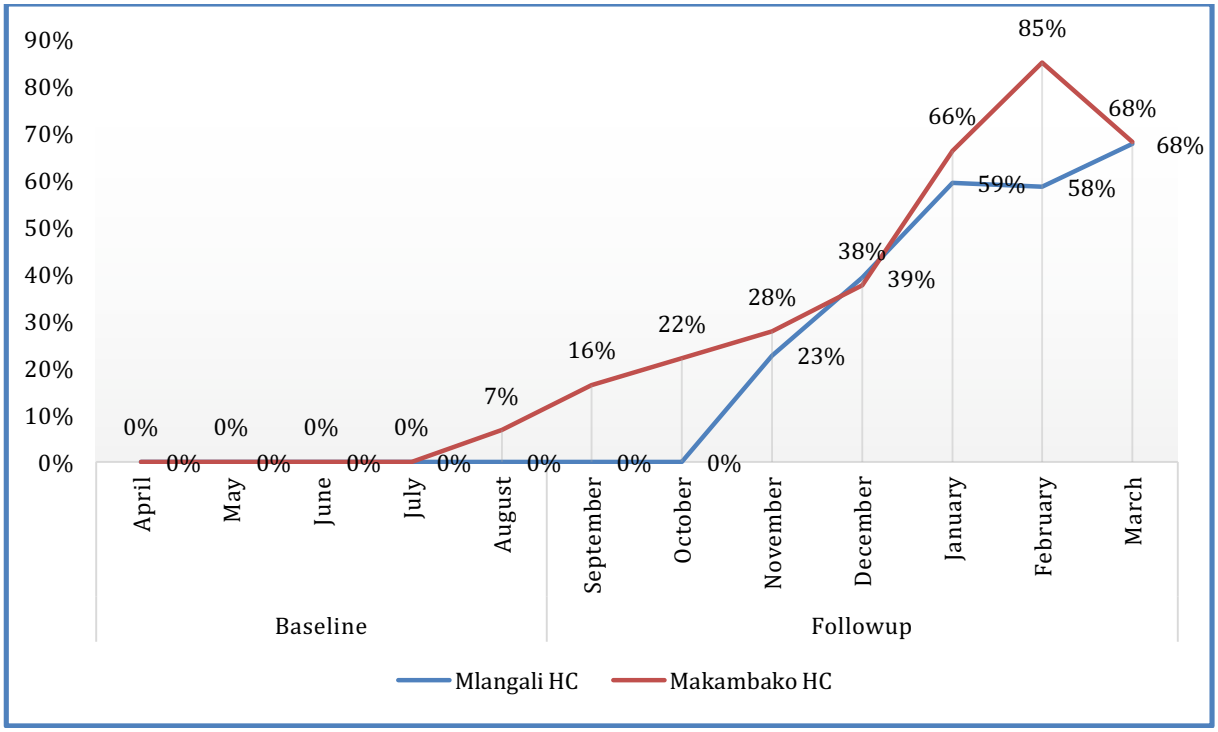


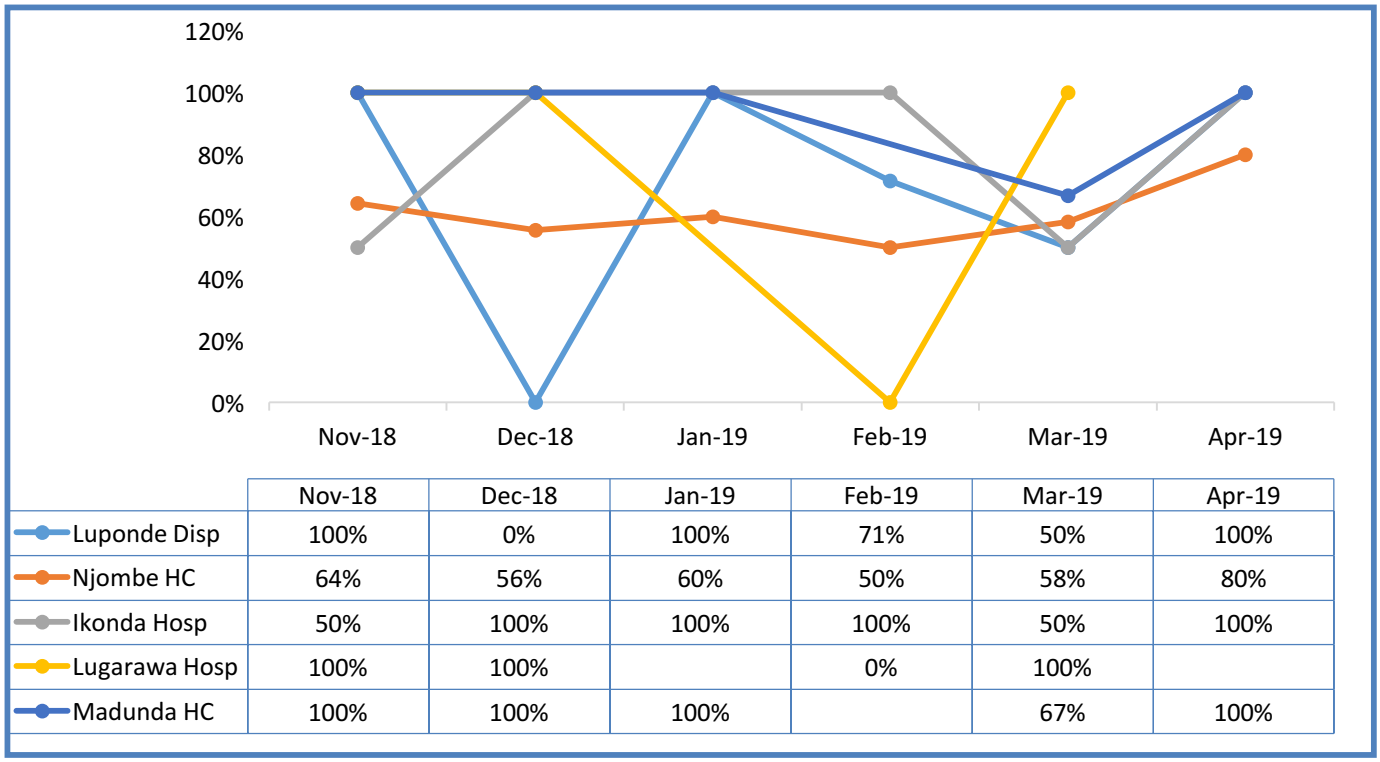
Figure 10: Three months' ARVs provision, Makambako and Mlangali HCs

The Improvement observed was due to continued health education, proper categorization of stable clients using SOPs and categorization checklists attached to the clients file, HVL test uptake leading to viral suppression among clients.
Three months' ART is dispensed at all facilities, whereby stable ART clients (both adults & adolescents/pediatrics) are provided with 3 months ART, except at Uwemba HC and Milo dispenary. Due to the available nutritional support program for supplements by DREAM, provided monthly to adults >60years and children <15 years, stable clients at Uwemba HC are not provided with 3 months ART. Similarly, HCPs at Milo dispensary do not provide 3 months ART to stable clients initiated IPT due to fear of losing them.
There was adequate supply of ARVs at all health facilities except at Makoga HC. At this facility, there was a low stock of ARVs in January and February 2019, thus stable clients were not provided with 3 Months ARV, but the situation was corrected by March when they received the stock.
To maintain the good QI performance, the teams were:

- Mentored on proper documentation of appointment register and the sources of data (numerator and denominator)
- Reminded to continue health education both to individuals and groups of clients during their clinic visits
- Emphasized on maintaining good documentation of appointment registers and,
- The use of new CTC2 cards do document clients stability and drugs dispensed

2.4. Adherence and Retention of pediatrics and adolescents <25 years old

During this third mentorship visit in Njombe, twenty-three facilities mentored provided adolescent-friendly services as per the national guidelines. It was observed that adherence and retention of pediatrics and adolescents under 25 years of age had improved at some sites when comparison of performance was made between the second and the third visit. Some sites with significant improvement in performance included Luponde dispensary, Njombe HC, Ikonda hospital, Ludewa hospital, Lugarawa hospital and Madunda HC. Those sites managed to improve through proper use of appointment and tracking registers for early identification of defaulted clients, tracking them through CBHS providers and hence bring them back to care, as demonstrated in the graph below.

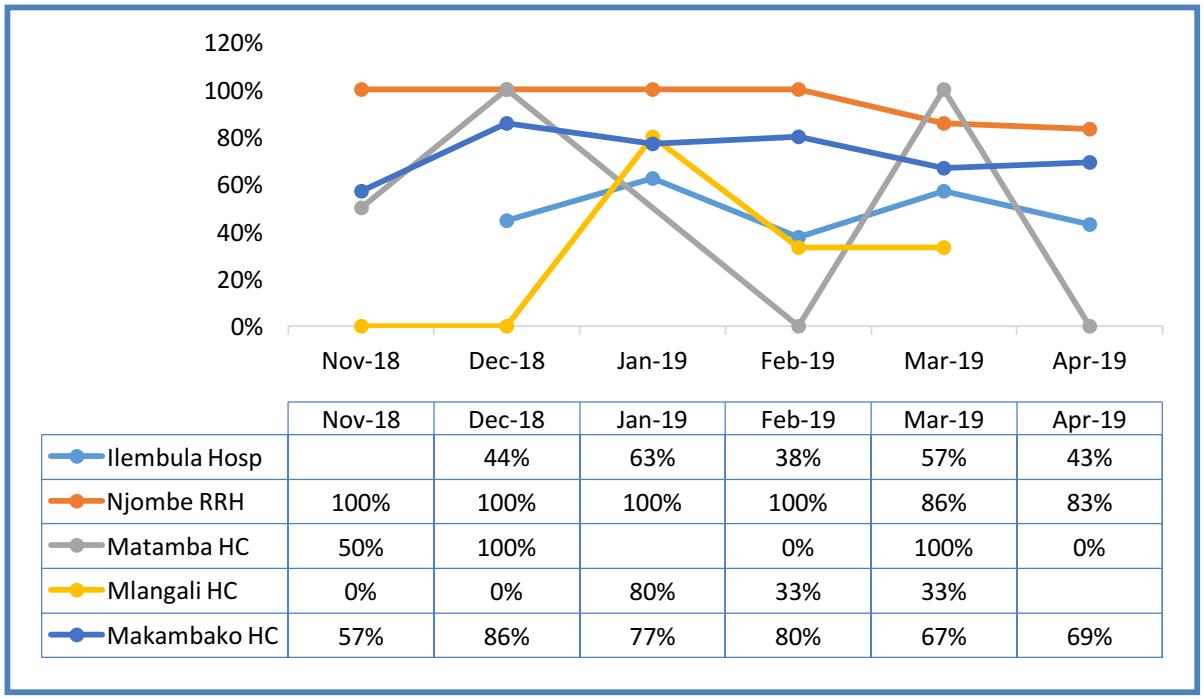


	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
Luponde Disp	100%	0%	100%	71%	50%	100%
Njombe HC	64%	56%	60%	50%	58%	80%
Ikonda Hosp	50%	100%	100%	100%	50%	100%
Lugarawa Hosp	100%	100%		0%	100%	
Madunda HC	100%	100%	100%		67%	100%

Figure 11: Showing selected sites with improved retention of pediatrics/adolescents in Njombe region

On the other hand, some health facilities like Ilembula hospital, Njombe RRH, Matamba HC, Mlangali HC and Makambako HC had lower performance on retention of adolescents and pediatrics due to different contributing factors. The leading causes of lower performance included; defaulted pediatrics/adolescents were not traced back to care despite having community volunteers, absence of treatment supporters to escort patients to the clinic or delay in collecting medication by the treatment supporter, as well as self-stigma.

At Mlangali HC, the appointment register being used was already full of entries and they had no other means of scheduling appointments for upcoming clients' visits. This means that it would not be possible for staff at Mlangali HC to identify clients who will not attend clinics on scheduled appointment dates. The sites with poor performance in retention are demonstrated in the Figure 12 below.



	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
Ilembula Hosp		44%	63%	38%	57%	43%
Njombe RRH	100%	100%	100%	100%	86%	83%
Matamba HC	50%	100%		0%	100%	0%
Mlangali HC	0%	0%	80%	33%	33%	
Makambako HC	57%	86%	77%	80%	67%	69%

Figure 12: Showing selected sites with performances lower than those of previous visit in Njombe region

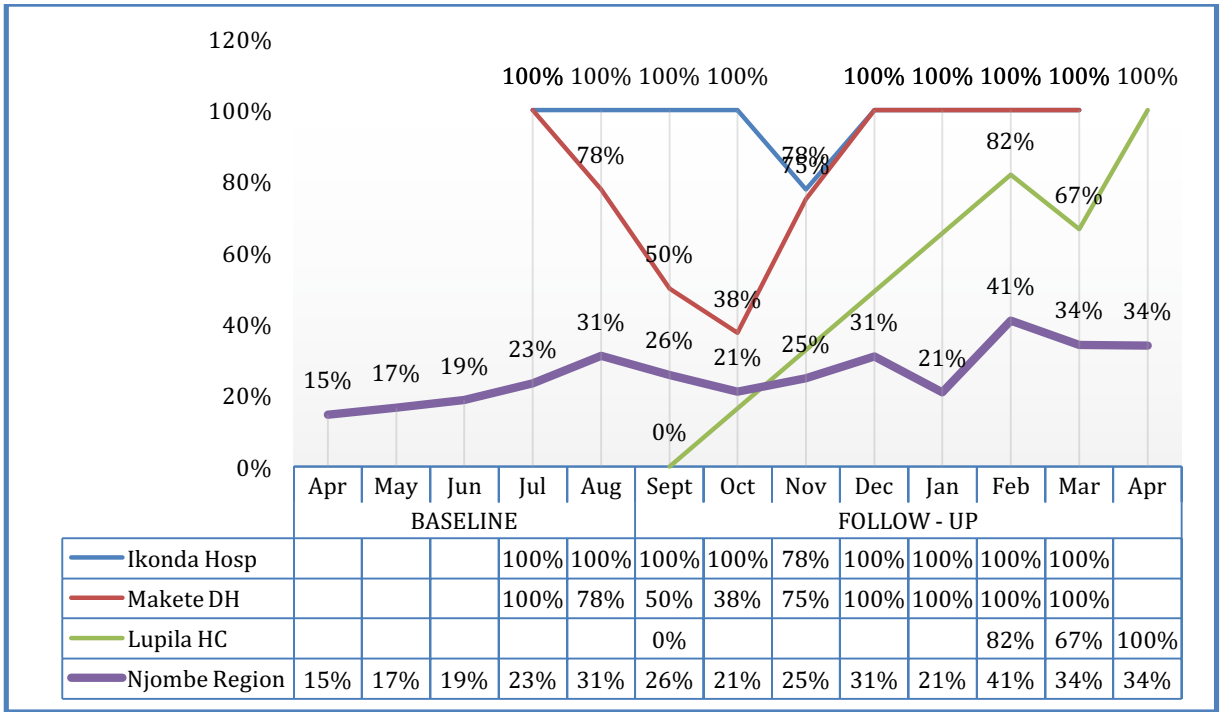
Following the challenges identified by healthcare workers during the mentorship the following were emphasized so as to improve retention and adherence:

- Health education to clients on the importance of adherence to ART and its side effects
- Early disclosure to adolescents and pediatrics and their treatment supporters on HIV cascade and the importance of adherence to ART
- Early identification and tracking of defaulted pediatrics/adolescents through the use of appointment and tracking registers, and the use of CBHS for tracing defaulters from households and communities.

2.5 HIV Viral Load (HVL) and Enhanced Adherence Counseling (EAC)

During this visit, the Amethyst team reviewed completeness and accuracy on HVL and EAC registers as well as documentation of eligible clients for HVL testing and referral to EAC session. Repeat HVL testing to all eligible clients and switching to second line regimen was done for those clients with high viral load who are not virally suppressed.

A great improvement has been observed in documentation of HVL registers in most facilities except at Ilembula hospital and Lwangu Dispensary where they use counter books instead of the HVL register for recording. Moreover two facilities, that are Ikonda hospital and Makete DH, showed an improvement in documentation in the EAC register compared to the prior status.



	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Ikonda Hosp				100%	100%	100%	100%	78%	100%	100%	100%	100%	
Makete DH				100%	78%	50%	38%	75%	100%	100%	100%	100%	
Lupila HC						0%					82%	67%	100%
Njombe Region	15%	17%	19%	23%	31%	26%	21%	25%	31%	21%	41%	34%	34%

Figure 13: The graph above shows the successful referral to EAC session for three facilities and overall performances in the Njombe region.

From the above graph Ikonda hospital, Makete DH and Lupila HC in Makete DH showed improved performance in referral to EAC compared to other sites visited in the region due to the following factors:

- Improvement in documentation in EAC registers
- Early tracking of eligible clients through use of phone and HBC for EAC initiation.
- Availability of EAC counsellor following up on all clients who require EAC session(s)
- Preparation of files prior to each clinic for all clients who need EAC
- Updating EAC register immediately after EAC session
- Follow-up of clients who have completed EAC for repeat test

Furthermore, at Ikonda hospital, the performance was improved due to the availability of the Gene –Expert machine at the facility for HVL testing, hence Turn-Around-Time for HVL is within 14 days.

Despite the improvement in performances, the overall region performance ranges from 25% in November 2018 to 34% in April 2019. This was mainly due to the documentation gap in the EAC register as well as a delay in the tracking of eligible clients for EAC initiation.

During the mentorship session the HCPs were mentored on proper documentation on EAC and use of HVL registers. Emphasis was also made on the importance of tracking clients early for EAC initiation.

3. Conclusion and Overall Recommendations

3.1. Conclusion

Quality Improvement indicators are being monitored by all facilities and the performance for each indicator has improved. Service Delivery Model is being implemented and stable clients are provided with three months of ARV prescription. Services which are provided to stable clients serve as motivation to unstable clients to shift to the Stable Client category.

More efforts made towards attaining 1st 90 was demonstrated by testers complying with the national testing algorithm and conducting internal quality control indicators, but for index testing the gap is still present. More efforts in HIV index approaches such as rolling out index registers and elicitation forms to entry points, using community volunteers for tracing clients and improvement on documentation of Index registers is still needed.

Although there is a noticeable improvement for all indicators monitored by health facilities, there is a great challenge with documentation that is still persisting. Ongoing mentorship and coaching visits should emphasize on, among other things, proper documentation of all the tools used by the health facilities during service provision.
Support by IP is important for continuation of the QI initiative through incorporation of QI plan review into their routine supervision. This will enhance institutionalization of QI initiative, including reporting at the level of the health facility.

3.2. Recommendations

- Supportive supervision and coaching sessions by R/CHMT & IP should emphasize on:
  - A monthly review of indicators
  - Conducting and documenting QI meetings
  - Updating SES journals
  - Proper documentation and updating of registers
  - Use of the elicitation form for tracking index clients
  - Post-training follow up after a learning session
  - Use of HBC to track defaulters, index clients and clients with high HVL
- Integrate EAC, index testing and ART provision into outreach services
- Use of multi-month ARVs provision as motivation for improved stability of unstable clients

- Continue using National HIV guideline in order to improve HVL testing cascade (Testing of eligible clients, TAT, results management and utilization)
- Implementing partner to continue follow-up on the initiated Quality Improvement activities
- Categorize adolescent and children >5years using National HIV guideline (Categorize and provide three months ARVs)
- In order to reduce staff shortage at CTCs, IPs and CHMT should consider proper planning and selection of health care providers to attend trainings, workshops and outreach services. For instance, a 3-month outreach service for male circumcision is quite prolonged and affects services.

Regional Indicator performance, the Njombe region

	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sept-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Index testing for new clients	2%	9%	10%	16%	24%	20%	17%	26%	19%	22%	26%	21%
Retention <25 years	68%	79%	85%	91%	82%	87%	70%	68%	64%	74%	65%	64%
IQC	35%	33%	37%	47%	69%	72%	71%	80%	73%	75%	72%	77%
Compliance	51%	52%	51%	69%	79%	77%	76%	88%	88%	88%	93%	90%
Client's categorization	0%	0%	0%	23%	57%	65%	66%	78%	86%	85%	83%	89%
Successful referral to EAC	15%	17%	19%	23%	31%	26%	21%	25%	31%	21%	41%	34%
>2 Months appointment visits	0%	0%	0%	0%	10%	17%	21%	19%	24%	28%	30%	31%

Annex 1: List of Sites Visited for QI Mentorship in the Njombe region

Council	Facilities
Ludewa DC	Mlangali HC, Lugarawa Hosp, Ludewa DH, Madunda HC, Milo Hosp and Madope Disp
Makambako TC	Makambako HC
Makete DC	Bulongwa Hosp, Ikonda Hosp, Makete DH, Matamba HC and Lupila Disp
Njombe DC	Mtwango HC and Lupembe HC
Njombe TC	Njombe RRH, Luponde Disp, Uwemba HC, Njombe HC and Lwangu Disp
Wanging'ombe DC	Wanging'ombe HC, Ilembula Hosp, Mdandu Disp, Makoga HC and Kipengere HC

Annex 2: QI Database – Njombe region