MAY 2018

PRIORITIZING TECHNICAL SUPPORT

TOOLS, APPROACHES, AND RESOURCES

USAID FROM THE AMERICAN PEOPLE

ZPCT II Zambia Prevention, Care and Treatment Partnership

fhi360 THE SCIENCE OF IMPROVING LIVES

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Acronym List

ART	Antiretroviral therapy
ASW	Adherence support worker
BSC	Balanced scorecard
CAT	Community ART tracking
CBV	Community-based volunteer
CM	Community mobilizer
COP	Chief of Party
DEC	Data entry clerk
DQA	Data quality assessments
FSW	Female sex worker
HCW	Health care worker
HTS	HIV Testing Services
LF	Locater form
MSM	Men who have sex with men
PEP	Post-exposure prophylaxis
PEPFAR	US President's Emergency Plan for AIDS Relief
PNS	Partner notification services
SI/M&E	Strategic information/monitoring and evaluation
TQL	Total quality leadership
USAID	United States Agency for International Development
ZPCTIIB	Zambia Prevention, Care and Treatment Phase II B

Introduction

This document was developed to serve as a step-by-step guide on successfully steering comprehensive antiretroviral therapy (ART) programs, utilizing experiences from the challenges of the Zambia Prevention, Care and Treatment Phase II B (ZPCTIIB) project. It contains a set of tools developed by a team of ZPCTIIB program managers. This challenging and complex ART project was funded by the US President's Emergency Plan for AIDS Relief (PEPFAR), through the United States Agency for International Development (USAID). The project was born out of a partnership between the United States Government and the Government of the Republic of Zambia to control the HIV epidemic in Zambia. Due to the complexity of ZPCTIIB, several data quality issues arose during the project's progression.

To address these issues, USAID/Zambia engaged Measure Evaluation to co-develop and co-implement an intensive and rapid set of assessments focused on data quality. Two data quality assessments (DQAs) were conducted at the USAID-funded, ZPCTIIB project-supported sites in Zambia. Following the assessment, USAID requested that the ZPCTIIB project develop and implement a remediation plan aimed at reversing identified gaps. The project team implemented a variety of innovative approaches to effectively and efficiently rectify the situation that successfully generated highly impressive results. USAID subsequently granted ZPCTIIB an extension to commend the project turn-around and share success factors with interested partners in Zambia, with particular focus on the high-burden areas of the Copperbelt and Northern provinces.

Users of the included tools should use discretion when adapting these methods to their unique circumstances. Simply employing the strategies described in this toolkit does not assure success. FHI 360 recommends these tools be used as a guide and modified as needed.

Purpose of the toolkit

The purpose of this document is to provide practical guidance to program managers and technical teams in carrying out results-oriented management of complex ART services in a resource-constrained environment. Therefore, all the tools contained in this document are evidence-based guidance for decision making, motivating staff, setting priorities, and promoting equity and equality. To address these topics, an organization's leadership must demonstrate commitment and actively participate in the project planning and implementation process, otherwise, they will see few significant outcomes.

An organization may have all the "best practices" to achieve desired results, but they will need commitment from internal leadership to bring quality management to a level that guarantees an organization's success. Therefore, Total Quality Leadership (TQL) principles must be adopted in managing the project. TQL is defined as "the application of *quantitative methods* and the *knowledge of people* to assess and improve (a) materials and services supplied to the project or organization; (b) all significant processes within the project or organization; and (c) meeting the needs of the end-user, now and in the future." The term "*quantitative methods*" refers to statistical and other graphical tools that summarize data in a structured way. These methods help in the identification, understanding and control of factors related to good or poor performance. The "knowledge of people" refers to the collective knowledge of all those who are involved with the process (gathered through qualitative methods). Therefore, the team must

collaborate in order to contribute information, ideas, and actions needed to improve a process and ultimately achieve the desired results.

Intended audience

The intended audience for this document are program managers and their technical teams at both national and sub-national levels (provincial, district, community and health facilities). All parties at various levels are expected to demonstrate equal level of commitment and participation to achieve greater outcomes.
The teams shall work together to adopt the following TQL steps;

All program managers shall lead the quality management process and ensure their team members are playing their roles actively and correctly.

A Situation Room shall be set up at every level (national and sub-national levels), to serve as a place where all actors meet at a designated time of the day to discuss the previous day's results and make decisions on key areas going forward.

All senior leadership team members at national or sub-national levels shall attend daily Situation Room meetings, discuss the data and make strategic decisions based on the data for feedback to the team

M&E shall take notes, compile highlights of the Situation Room meeting and send along with the day's data presentation to all staff

All staff shall implement the strategic decisions shared, evidence of which shall be seen through improvements in subsequent daily performance reports

All technical staff shall have daily targets and strive to meet targets in a timely manner

Members of senior leadership shall respond to all site level reports, based on their observation of the quantity and quality of the reports received. Their feedback shall cut across monitoring and evaluation (M&E), technical or program management issues.

The M&E team shall conduct data analytics and present antiretroviral therapy and viral load cascades in graphic formats, daily.

The M&E team shall distribute fully analyzed reports, composed of the current day's results and cumulative data across all indicators by email, daily

The M&E team shall print and post each day's data presentation (e.g., run charts) in designated space(s) of the Situation Room for any interested persons to view. The run charts shall remain in place until the next day's version is up.

It is the obligation of supervisors to ensure defaulters of communicated guidance are assessed for capacity weakness(es) and supported through mentorship and/or training. It is the responsibility of project staff assigned to health facilities to apply innovative strategies to meet their daily targets. If they encounter any challenge, they shall seek appropriate support in advance.

It is the responsibility of supervisors to provide all needed support to ensure daily targets are met.

Where a subordinate consistently misses the day's target and the supervisor is unable to provide support to remediate the situation, the supervisor shall be subjected to a capacity assessment and supported through mentorship and/or training.

Mentors shall be sourced from the Country Office technical pool, regional pool, or from headquarters.

Project Directors shall be responsible for monitoring, supervision, implementation and

compliance with each of the TQL steps listed above.

Additional resources

A mix of management principles was adopted in implementing the surge activity under the ZPCTIIB project. They include total quality leadership, Geert Hofstede's dimensions of national culture, balanced scorecard, Maslow's hierarchy of basic human needs, Pavlov's theory of classical conditioning of learning, and Lewin's force field analysis. To better understand these theories, readers are encouraged to explore the relevant literature because they are not discussed as separate entities in this document.

Tools, Approaches, and Resources: At-A-Glance

Groups	No.	Tool Name	Purpose	Target Audience	Resources	Time
A: Management	A1	**Guide to setting up a situation room**	To serve as a nerve center and meeting room for real-time information-sharing and decision-making among key decision makers	Key decision makers National: COP, Deputy COP, technical directors/advisors Sub-national: Management, SI/M&E and technical leads	1. Laptop/computer, projector & screen 2. White board, markers, flipcharts 3. Notebooks 4. Conference table(s) and chairs 5. Water, coffee & tea	20min
	A2	**Daily target setting**	To set program performance expectations to drive motivation towards meeting targets	National: SI/M&E director, technical leads Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, DECs	1. Laptop/computers with MS Excel & internet 2. WhatsApp, internet email access 3. Staff skills - intermediate to advanced skills in MS Excel (ability to apply formulas and conditional formatting functions)-	15min
	A3	**Daily performance monitoring and reporting**	To highlight key indicators for measuring performance progress against daily targets over time.	SI/M&E team	1. Facility daily target tool 2. Laptop, projector & screen	20min
	A4	**Data use for management decision-making**	To improves program efficiency and effectiveness through strengthened, evidence-based planning and programming.	Key decision makers National: COP, Deputy COP, technical directors/advisors Sub-national: Management, M&E and technical leads	1. Laptop/computer, projector & screen 2. Effective M&E system (data collection and reporting skills - strong analytic and data visualization skills; MS Excel and PowerPoint competency) 3. List of carefully selected and defined indicators	15min
	A5	**Strategic site prioritization tool (using Pareto and equity Principles)**	To helps select a limited number of tasks that produce significant overall effect through the Pareto Principle (also known as the 80/20 rule).	Key decision makers National: COP, Deputy COP, technical directors/advisors Sub-national: Management, SI/M&E and technical leads	1. Computer/laptop 2. Staff skills – competency in statistical techniques and MS Excel	15min
	A6	**Mainstreaming Balanced scorecard (BSC) into program management**	To serve as a management system for organizations and programs to communicate desired accomplishments in order of priority	Key decision makers National: COP, Deputy COP, technical directors/advisors Sub-national: Management, SI/M&E and technical leads	1. Human capital with training in BSC 2. Infrastructure and technology capable of measuring key performance indicators	20min
	A7	**HIV Testing Services (HTS) Resource optimization tool**	To optimize available human and material resources for greater HTS output at the facility level.	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors	1. Trained HIV counsellors 2. Supplies for HIV testing and infection prevention/PEP 3. HTS corners in clinics	15min

Groups	No.	Tool Name	Purpose	Target Audience	Resources	Time
B: Community	B1	**Hotspot Mapping and Planning Tool**	To increase strategic case identification within the communities	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors, CMs and community leaders	1. HIV Test kits and infection prevention supplies 2. HTS Counsellors, HCWs & CMs 3. HTS register/notebook, patient locator forms (LF), result slips 4. Refreshments, transportation, communication and security arrangements 5. Condoms, lubricants and IEC materials	15min
	B2	**Moonlight Testing tool**	To increase case identification during evening and night hours in HIV high risk settings, and increase the chances of providing HTS in high-risk settings sometimes during the evening and night. This testing approach can be used to find FSWs, MSM, truck and taxi drivers	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors, CMs and community leaders	1. HIV test kits and infection prevention supplies 2. HTS Counsellors, HCWs and CMs 3. HTS register/notebook, patient LFs, result slips 4. Refreshments, transportation, communication and security arrangements	15 min
	B3	**Community resources recruitment tool**	To serve as a guide in the recruitment of community mobilizers and effectively utilize them to increase demand for testing during a targeted testing outreach and linkage to treatment	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors, CMs and community leaders	1. Committed CMs who are ready and willing to work at night 2. Refreshments, transportation, communication and security arrangements	15min

Prioritizing Technical Support

Groups	No.	Tool Name	Purpose	Target Audience	Resources	Time
C: Facilities	C1	**Facility testing optimization (modalities and strategies)**	To optimize health facility testing and increase HIV positivity yield.	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors	1. Psychosocial, lay counsellors and other staff should be oriented to new HIV testing strategies e.g. index and PNS 2. Placement of counsellors in all **entry** points with priority for high yield entry points such as STI, admission wards and TB clinics and more counselors at high volume entry points	15min
	C2	**Partner Notification Services and index testing tool**	To improve HIV case identification using snowball effects.	Sub-national: SI/M&E and technical leads, lead health facility, facility-based clinicians, HIV counsellors, CMs and community leaders	1. HTS registers 2. High viral load registers 3. PNS register 4. Locator form with family census 5. Counselors and community-based volunteers (CBVs) 6. Updated SmartCare database 7. Talk time/airtime vouchers	30min
	C3	**Viral load sample and results management tool**	To improve processes for VL sample collection, transportation, laboratory processes, return and use of viral load results for clinical decision-making	Head of laboratory services, lead health facility, site ART coordinator, community coordinator, DEC/M&E staff	**A. Sample collection** 1. Viral load requisition forms 2. Cooler boxes 3. Volunteers, lab staff **B. Transporting VL Samples** 1. Motorcycles 2. Driver, transportation, schedule 3. Lab hubs **C. Viral Load Testing (lab)** 1. Reagents and consumables 2. Sample processing units 3. Lab staff **D. Handling VL Results** 1. Viral load registers 2. High VL register 3. CBVs	30min

Groups	No.	Tool Name	Purpose	Target Audience	Resources	Time
D: Extra tools from the field	D1	**Tool for tracking known HIV-positive clients who are not initiated on ART**	To improve tracking of known HIV positive clients who are yet to be initiated on ART	Lead facility, site ART coordinator, HTS counseling coordinator, community mobilization coordinator	1. Updated HTS registers 2. Updated SmartCare database 3. Current ASW database & ASW catchment area maps	15min
	D2	**Tool for improving retention in ART**	To improve retention in HIV care for clients on ART	Lead facility, site ART coordinator; HTS counseling coordinator, community mobilization coordinator	1. Updated SmartCare 2. Updated daily activities and events registers 3. Valid and reliable historical program data 8. Current ASW database & ASW catchment area maps	15min
	D3	**Tool for improving patient appointment scheduling**	To improve patient appointment scheduling	Lead facility, site ART coordinator; HTS counseling coordinator, community mobilization coordinator	1. Appointment book/diary 4. Updated SmartCare database	15min
	D4	**Tool for improving linkage to ART among HIV-positive clients**	To improve linkage to ART initiation among HIV positive clients	Lead facility, site ART coordinator; HTS counseling coordinator, community mobilization coordinator	1. Valid and reliable historical program data on new positives 2. Updated HTS registers 3. Updated Pre-ART registers 4. Updated SmartCare database 5. Current ASW database & ASW catchment area maps	15min

Guide to Setting up a Situation Room

Purpose: A situation room serves as a nerve center for real-time information sharing and decision-making regarding an ongoing project. Key decision makers of the project meet in the situation room for at least 1-2 hours daily to review the previous day's activities and propose actions for the current day and onward. All decisions made in the situation room are based on the most immediate data available. Due to the freshness of the data, data quality assurance (DQA) might not have taken place before decisions are made. This is the greatest shortcoming of decisions taken daily in the situation room. However, any faulty decision taken can always be corrected the next day, following the availability of more recent, and most likely, accurate information.

Set up of a situation room in the ZPCTIIB project in Zambia

Resources Required:

Identify a large, well-ventilated room with capacity to hold up to 5-10 persons and equipped with the following resource:

- Projector & projector screen
- Laptop
- White board, markers, flipcharts
- Notebooks
- Conference table(s), chairs
- Refreshments (water, coffee & tea)

Methodology:

1. **Clear the room** to create free movement and free flow of air
2. **Clean up the room** – sweep floor and dust surfaces
3. **Arrange seats in U-shape** to ensure good eye contact between participants and pleasant view of the projector screen
4. **Provide generous space** for posting pictures, run charts, and any other materials relevan to the project
5. **Hold meetings** at least 1-2 hours daily to review the previous day's quantitative data, as well as any qualitative feedback from the field.
6. **Make key decisions** based on both quantitative and qualitative data, ensuring no decision is reached without supporting data
7. Circle back on all agreed decisions to the field for implementation and continuous monitoring and reporting by the field.
8. Monitor, document, report, communicate and use information for decision-making.

Measurement Criteria - Indicators of Success:

- Proportion of designated project sites reporting into the situation room daily.
- Proportion of situation room decisions implemented across all project sites.
- Number of key project outcomes arising from situation room decisions.

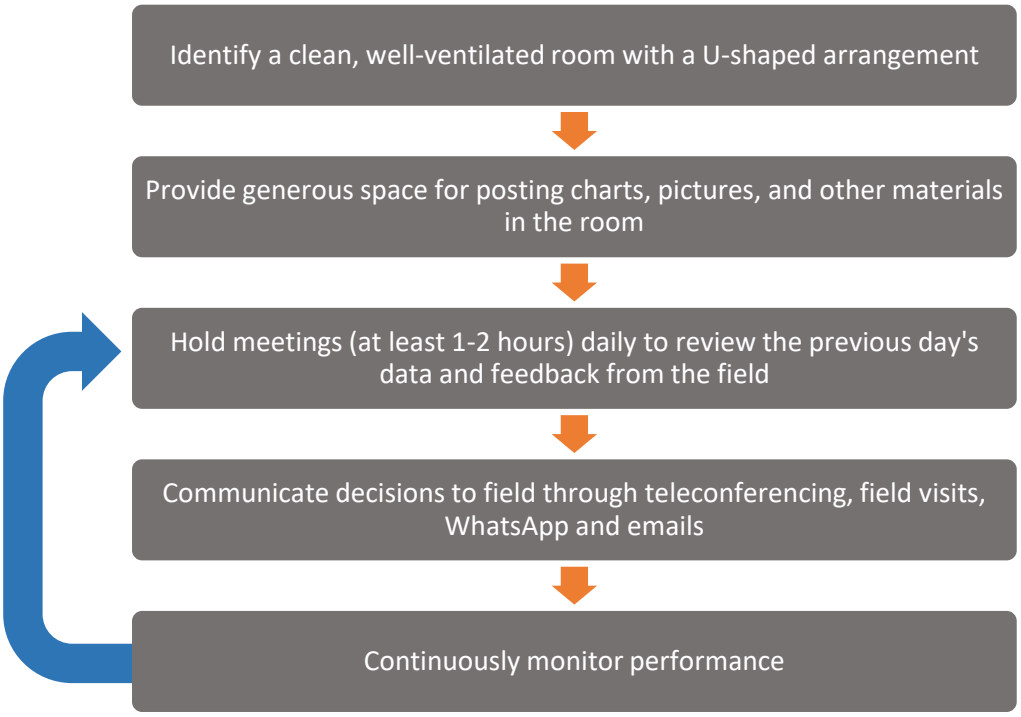
What Worked: *Essentials for successful implementation*

- Dedicated staff, with high zeal to achieve results
- Availability of a room and required furniture/supplies that met the requirement for a situation room.
- Pictures and graphics regularly posted in designated areas by staff
- Previous day's run charts prepared overnight and posted every morning by assigned strategic information staff.
- Leadership taking the lead and leading by example. The situation room doubled as a field office for the Chief of Party, thus, making it a go-to place for all staff.
- Active participation by all management staff.

What did NOT work: *Practices to avoid*

Weak internet connectivity caused delays in communicating with other offices through VOIP or Skype. Therefore, proper internet connectivity must be provided in advance.

Flowchart: Setting up a situation room



Daily Target Setting

Purpose: This toolkit sets program performance expectations to drive motivation towards meeting targets. It is meant to aid program and technical staff develop, adapt and utilize an excel-based daily target setting tool. The tool has two main functions:

- Daily reporting and performance monitoring by facility
- Daily target setting.

Resources Required:

1. Strategic Information/M&E representative; facility-based clinicians/data clerks/HCWs
2. Skills - intermediate to advanced skills in excel; database development in excel; ability to apply excel formulas and conditional formatting functions
3. Computers with MS Excel & internet
4. Feasible reporting mechanism – WhatsApp, email

Methodology:

1. **Determine overall targets** when initiating the tool to determine the overall program targets during the given period
2. **Prioritize facilities/sites** based on their historical performance (preferably in the previous four quarters) and rank facilities in order of contribution to overall results, starting with the highest contributing facilities. Identify the top facilities contributing 80% of the results and proportionately distribute 80% of the targets to them. Additionally, proportionately distribute the remaining 20% of the targets to the remainder of the facilities based on their average quarterly performance.
3. **Distribute** the facility specific targets equally across the number of days remaining within the implementation period.
4. **Link sheets** in the tool, with each cell in the Daily Results Sheet being linked to the corresponding cell by facility and date in the Daily Target Sheet.
5. **Apply conditional formatting** to the Daily Results Sheet. If the result for the day is equal to or exceeds the corresponding daily target, the cell automatically color codes green. If the daily target is not reached, the cell turns red. By default, all cells are white until a result is entered.

			Feb-05	Feb-06	Feb-07	Feb-08	Feb-09			Feb-12	Feb-13	Feb-14	Feb-15	Feb-16	
		Total Results>>	125	97	94	106	477	42	5	127	104	100	100	578	65
District3	Facility4	FacilityID													
Chingola	Kabundi East	2020130	3	0	3	2	0	1		1	3	6	0	6	0
Mansa	Senama	4030360	3	1	2	1	0	6	5	2	2	5	6		
Ndola	Chipokota Mayamba	2100120	2	0	1	3	0			3	1	1	0	2	
Solwezi	Solwezi General Hospital	7060010	2	5	5	4	2			10	11	10	3		
Ndola	Twapia	2100450	1	2	0	7	2	1		2	3		2	4	
Mansa	Buntungwa	4030110	2	0	0	1	9	4		3	1	2	3	0	
Chingola	Chiwempala	2020120	1	2	0	1	2			1	5	2	3		
Mansa	Mansa General Hospital	4030010	1	1	1	3	6			0	2	1	2	0	
Chingola	Nchanga North Hospital	2020010	8	6	14	15	13	7		5	14		10	30	
Chililabombwe	Lubengele Clinic	2010150	3	5	6	8	7			9	2	1	3	3	
Kitwe	Kitwe Central Hospital	2040010	3	1	0	2	3			2	4	11	3	4	

A Daily Results Sheet on MS Excel with color-coded cells for achieved and unmet targets

6. **Excel formulas**: Apply formulas to automatically generate new daily targets once results have been entered by redistributing the balance of targets by the number of implementation days left. It should be such that failure to meet targets will lead to increasing daily targets for all subsequent days for the facility. Meeting the targets should lead to decreasing daily targets over time.

Measurement Criteria - Indicators of Success:

Performance - excel tool reflecting the appropriate color changes in line with expected design (Yes/No).

What Worked: *Essentials for successful implementation*

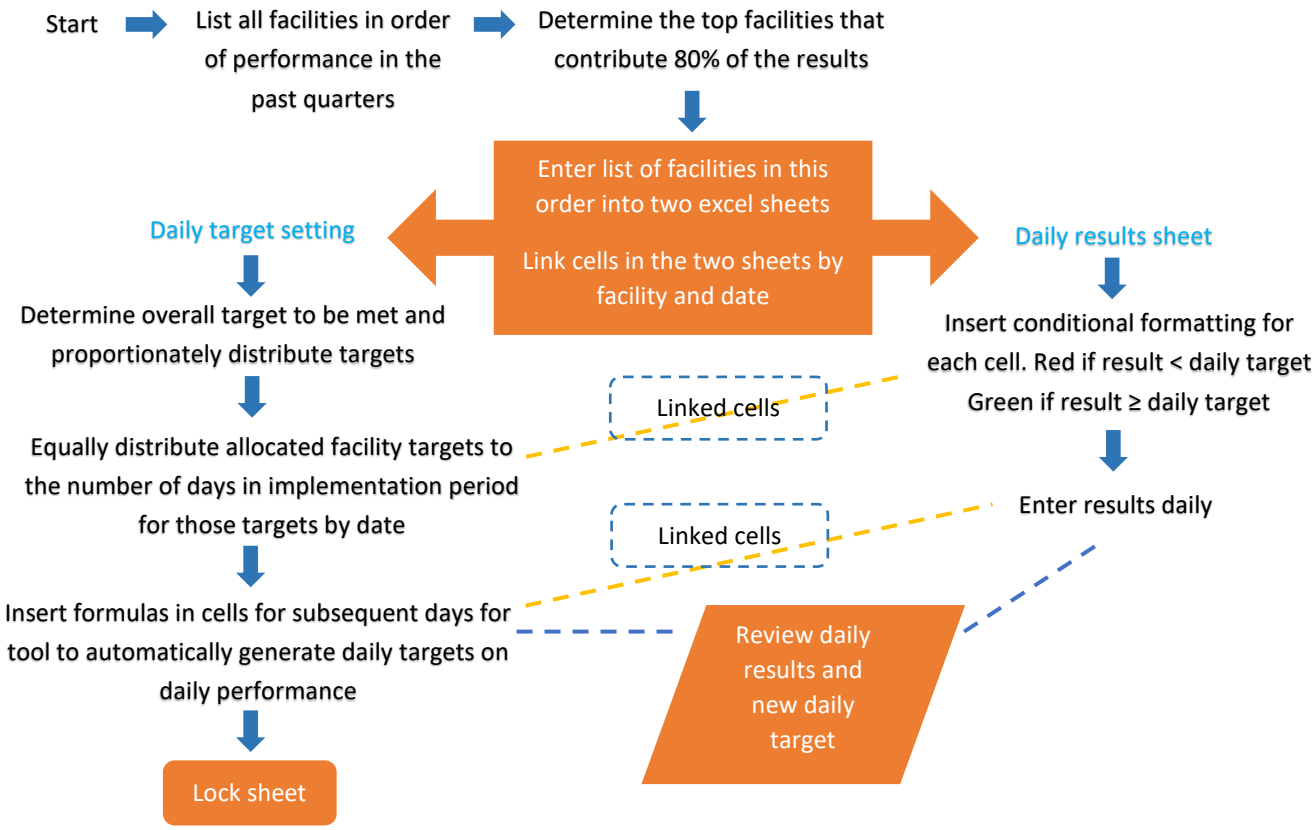
- Confirming the tool was well understood and appreciated by all users.
- Designating staff to be responsible for daily updates and distributing the populated tool
- Ensuring 20% of the facilities responsible for 80% of results were reporting daily while the rest of the facilities had weekly targets and reported weekly. This made it feasible to utilize the tool.
- Minimizing the number of variables and disaggregates that would be reported. The tool was high level and only monitoring performance towards targets.
- The conditional formatting using color coding was a motivator and sent immediate signals to users on how the facility was performing daily.
- Auto generation of daily targets helped maintain curiosity of what the facility needed to achieve the next day
- Tool was flexible and allowed for modifications after some facilities were re-classified as low, medium or high yield/volume
- Active participation by all management staff.

What did NOT work: *Practices to avoid*

- Attempted to use the tool to monitor performance by modality of HIV testing and generate targets by modality- this would have made the tool labor intensive to use.
- 100% timeliness could not be reached for daily reports.

Prioritizing Technical Support

Flowchart: Daily target setting



Daily performance monitoring and reporting

Purpose: To develop a user-friendly tool that highlights key indicators for measuring performance progress against daily targets, over time. To track individual staff performance and improve facility outcomes over time.

Resources Required:

1. Human Resources
   - Data Entry: computer literate staff with basic Microsoft Excel competence.
   - Data Management: Data manager / Strategic information officer with at least Microsoft Access Database development and querying experience.
2. Software
   - Microsoft Excel. Preferably version 2016 installed on at least Windows 7 operating system with 4GB RAM.
   - RDB Merge (free Excel add-in) (Required where there are Excel version compatibility issues)
   - ASAP Utility (freeware Excel add-in) (Optional)
   - Bulk Renamer (free tool for renaming files on disc) (Optional)
   - Database
     - Free Microsoft SQL Server Express edition with SQL server management studio. Minimum 2012 version (Preferred)
     - Microsoft Access Database. Preferably office 2016 (Optional)

Methodology:

1. Technical experts **create a list of indicators** to be tracked.
2. Management and technical experts **decide on mock-up dashboards** for reporting
3. Development and testing of the **Daily Activity Data Entry** tool
4. Development and testing of the **Daily Activity Feedback** tool
5. Technical staff working at sites **enter data** in the Daily Activity Data Entry tool.
6. Completed Daily Activity Data Entry tools are **e-mailed daily** to a data collation center for merging and data validation.
7. The Daily Activity Data Entry **tool is reviewed by the Data Manager** and feedback is provided to the field staff to iron out any data quality issues.
8. Daily Activity Feedback **report (with agreed dashboards) is shared** with project management and technical staff, daily.
9. **Feedback is provided** to field staff based on output of data visualization
10. Collated **report shared with USAID**, and feedback attended to.

Measurement Criteria - Indicators of Success

Proportion of reporting officers submitting completed reports daily

Prioritizing Technical Support

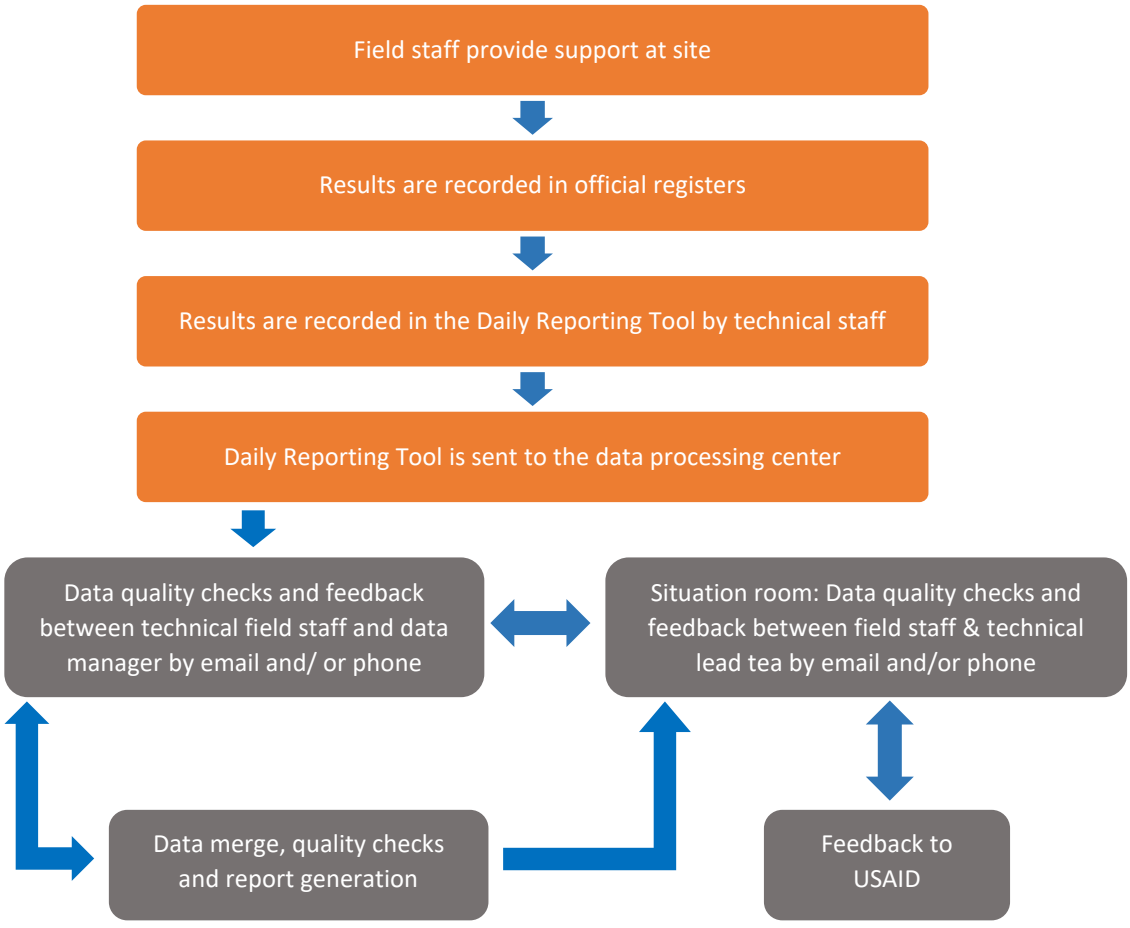
What Worked: *Essentials for successful implementation*

- A systematic folder structure that can be used to capture correct work dates using the ISO 8601 extended date format of **YYYY-MM-DD**
- Standard file naming convention to be used when submitting daily report by field staff: **Name of Officer_WorkDate_Version**. This makes quick file identification easier when doing quality control.
- Using the same Daily Activity Data Entry tool Excel version for everyone

What did NOT work: *Practices to avoid*

1. Allowing staff to enter work dates on the Daily Activity Data Entry tool
2. Developing tools in the latest excel xlsx format for data entry staff still running the old xls format
3. Using different Daily Activity Data Entry tool Excel versions

Flow Chart: Daily performance monitoring and reporting



Data use for management decision-making

Purpose: To improve program efficiency and effectiveness through evidence-based planning and programming

Timely and quality data is fundamental to health systems strengthening. It helps health programs target services to areas and populations with the highest need. With continuing decline in donor funding to support health programs, the demand for efficient programming is fundamental. This requires data-informed programs to reach intended outcomes. This toolkit is designed to provide guidance on providing management decisions in health programs. Establishing and sustaining data use for management decision-making requires a stable and efficient data collection and reporting system.

Resources Required:

1. Strategic information representative
2. Skills - strong analytic and data visualization skills; MS Excel and PowerPoint competence
3. List of carefully selected and defined indicators
4. Effective M&E system (data collection and reporting)
5. Computers and projectors

Methodology:

1. **Designate** a responsible person(s) to coordinate data collection, analysis and use
2. **Establish measurement priorities**
    - Determine measurement indicators and their reporting frequency. For frequently reported indicators such as daily/weekly- try to minimize the number of indicators.
    - Establish data collection, collation and reporting structure
    - Identify feasible reporting methods (paper-based, phone call, WhatsApp, DHIS2 etc.)
    - Develop and roll-out reporting tools by reporting frequency – daily, weekly, monthly, quarterly
    - Design data visualization templates/dashboards for management decision making.
    - Dashboards should include graphs to show trends over time and maps showing geographic spread.
3. **Collect and analyze data**
    - Collect data from service delivery points timely. Ensure collected data is complete and valid.
    - Visualize trends in graphs by different disaggregates, e.g. facility, sex, geographic location
    - Interpret trends observed from the data e.g. explain unusually high or low numbers.
4. **Share results with technical and management staff**
    - Distribute visuals and/or updated dashboards to technical staff and management.
    - Highlight unusual trends to management and technical staff
5. **Make management decisions based on data trends** e.g. distribution of human resources, strengthening scale-up of interventions, distribution of commodities, withdrawal of site support, strengthen supportive supervision and mentoring, etc.
6. **Maintain data** collection, analysis, interpretation frequency – daily, weekly, monthly, quarterly.

Prioritizing Technical Support

Measurement Criteria - Indicators of Success:

1. Proportion of management decisions supported by program data
2. Amount of resources saved because of data usage for decision-making

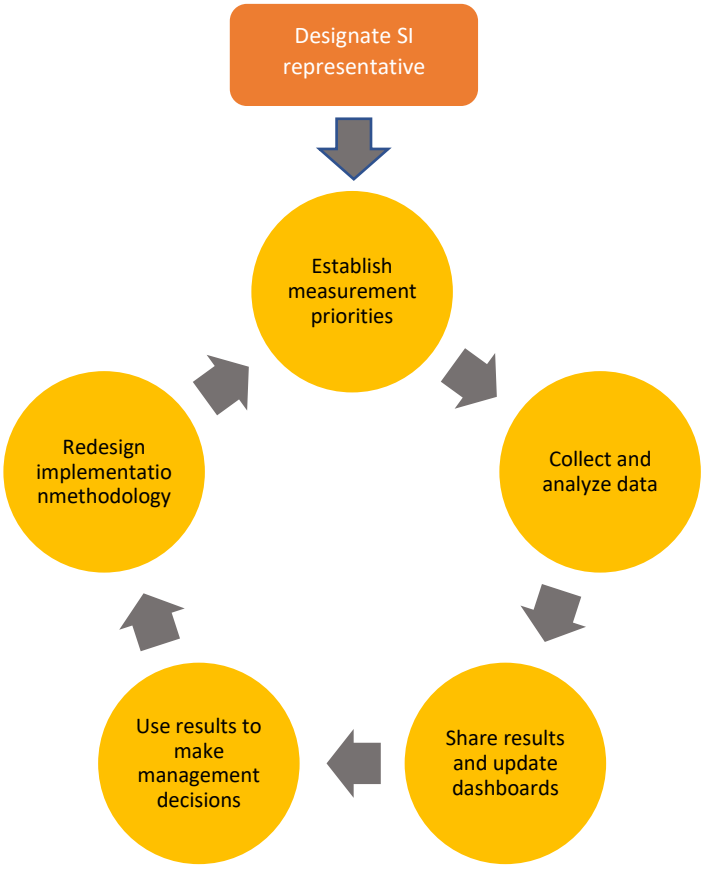
What Worked: *Essentials for successful implementation*

- Prioritize indicators that are measurable within the set reporting frequencies
- Only prioritize indicators for impact – the ones that are acted upon will bring improvements in program performance
- Ensure data quality – reported data should be reflective of true program performance
- Demonstrate that management decision-making is driven by data
- Sustain data collection, analysis and reporting process

What did NOT work: *Practices to avoid*

- Too many indicators
- Basing decisions on one time/point data

Flowchart: Data for decision-making



Strategic site prioritization (using Pareto and equity principles)

Purpose: In a comprehensive antiretroviral therapy program, many courses of action compete for attention over limited human, financial, and material resources. Thus, the project manager aims to make decisions to select a limited number of tasks that produce significant overall effect. Managers use the Pareto Principle (also known as the 80/20 rule), which describes that 20% of the effort/input generates 80% of the benefits observed. To ensure no portion of the program is neglected, an Equity Principle is applied to provide coverage for the remaining 20% of benefits that comes from the 80% of efforts.

Resources Required:

1. Human resources with good skills in statistical techniques and Microsoft Excel;
2. Computer/laptop.

Methodology:

1. Determine and **review health facility data** for all indicators of interest
2. **Establish goals** for your intervention
3. **Line list all focus health facilities** of interest and their performance data on a spreadsheet
4. **Sort the data** for indicators of interest, from highest to lowest
5. **Number the data** from the highest to the lowest
6. Compute the **top 20%** of health facilities that are **responsible for 80%** of results
7. **Allocate 80%** of human, material and financial resources **to the top 20%** of sites that are responsible of 80% of results (Pareto Principle)
8. **Allocate 20%** of resources **to the bottom 80%** of sites that are responsible for only 20% of results (Equity Principle)
9. **Implement** interventions, monitor performance and document results.

Measurement Criteria - Indicators of Success:

- Proportion of data (from any indicator of interest) generated from 20% of sites versus those generated from 80% of sites during a defined period.
- Proportion of resource inputs into 20% of sites versus 80% of sites during a defined period.

What Worked: *Essentials for successful implementation*

- Good knowledge of computerized data analysis and the principles and concepts of priority setting.
- Availability of data sets for statistical analysis.
- Dedicated staff and supervisors who believe in innovation and change management concepts.
- Cooperation and support from the Provincial Health Offices and the health facility leaderships

What did NOT work: *Practices to avoid*

The frequent changes in staff composition between the 80% and 20% sites caused some to struggle in adjusting to their new environment and building new social networks, thereby, losing performance time.

Mainstreaming balanced scorecard (BSC) into program management

Purpose: The balanced scorecard (BSC) is a management system that organizations and programs use to communicate what they want to accomplish in order of priority. It is aligned to their day-to-day work and consistently measured to achieve set targets. The BSC explores programs from four perspectives:

- technical or financial performance,
- client or stakeholder performance,
- internal business processes, and
- learning and growth or innovations.

Resources Required:

1. Human capital with training in BSC
2. Infrastructure and technology capable of measuring key performance indicators

Methodology:

1. Determine the **vision** and **mission** you want to attain
2. Review the **cultural practices, belief and norms** in the internal and external environment
3. **Set performance goals/targets** for reaching the desired vision
4. **Develop strategy maps** and actions to attain technical performance, client performance, internal business processes and learning and growth (innovations)
5. **Implement set strategies** (see all technical toolkits contained in this folder) and continuously measure performance against targets.
6. **Document new learnings**, results and monitor and transparently communicate with clients as frequently as possible.

Measurement Criteria - Indicators of Success:

- Technical performance (target achievements)
- Client performance (satisfaction levels)
- Internal business processes (efficiency measures)
- Learning and growth (new knowledge and innovations)

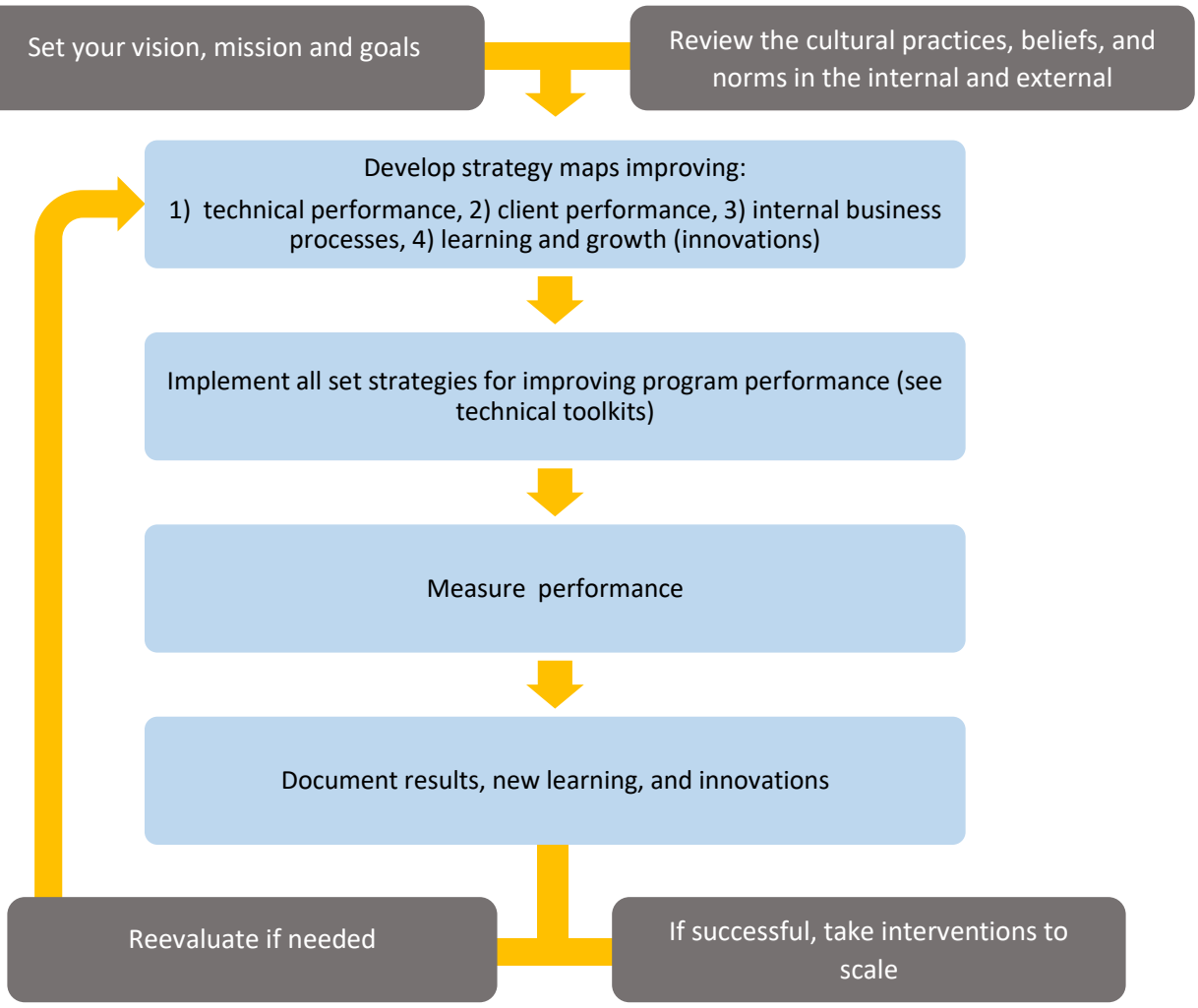
What Worked: *Essentials for successful implementation*

- Prior training on the theoretical concepts and value of BSC in business management, and its application to public health management. Discussion and emphasis on the vision and intended outcomes of the strategy.
- Shared vision and commitment by leadership and team to experience change.
- Reinforced communication through multiple approaches – emails, WhatsApp, etc.

What did NOT work: *Practices to avoid*

BSC concepts did not work effectively at facility levels because the facility heads were not familiar with this management concept. To enable the practice at that level, prior training will need to be carried out for the health facility managers before implementation.

Flowchart: Mainstreaming balance BSC into program management



HIV testing services (HTS) resource optimization

Purpose: To optimize available human and material resources for greater HTS output at the facility level.

Resources Required:

1. Psychosocial, lay counsellors and other staff should be oriented to new HIV testing strategies e.g. index testing and partner notification services (PNS)
2. Placement of counsellors in all **entry** points with priority for facility-specific high yield entry points such as sexually transmitted infection (STI), admission wards and tuberculosis (TB) clinics

   Note: *Psychosocial and lay counselors at a facility can be used more effectively to implement testing and cover all entry points. The purpose of covering all possible entry points is to maximize the opportunities for testing all patients who come to the health facility.*

Methodology:

1. **Meet facility management and technical staff** including nursing officers, heads of department e.g. outpatient department (OPD) or other specialized clinics and discuss optimizing testing at the facility as per MOH guidelines.
2. **Meet with the laboratory in-charge** and assess adequacy of available stock of HIV test kits in view of increased demands when routine HIV testing is introduced at the health facility. Review quality assurance/quality control (QA/QC) procedures.
3. **Discuss patient flow** and reach consensus on where to integrate HIV rapid testing services, e.g. testing corner at OPD, TB corner. Choose a site that will cause minimal disruption of existing patient flow but also facilitate maximum HIV testing of patients.

Measurement Criteria - Indicators of Success:

Number of patients tested at various entry points. The goal is to ensure that all patients at a health facility have access to HIV testing to know their status.

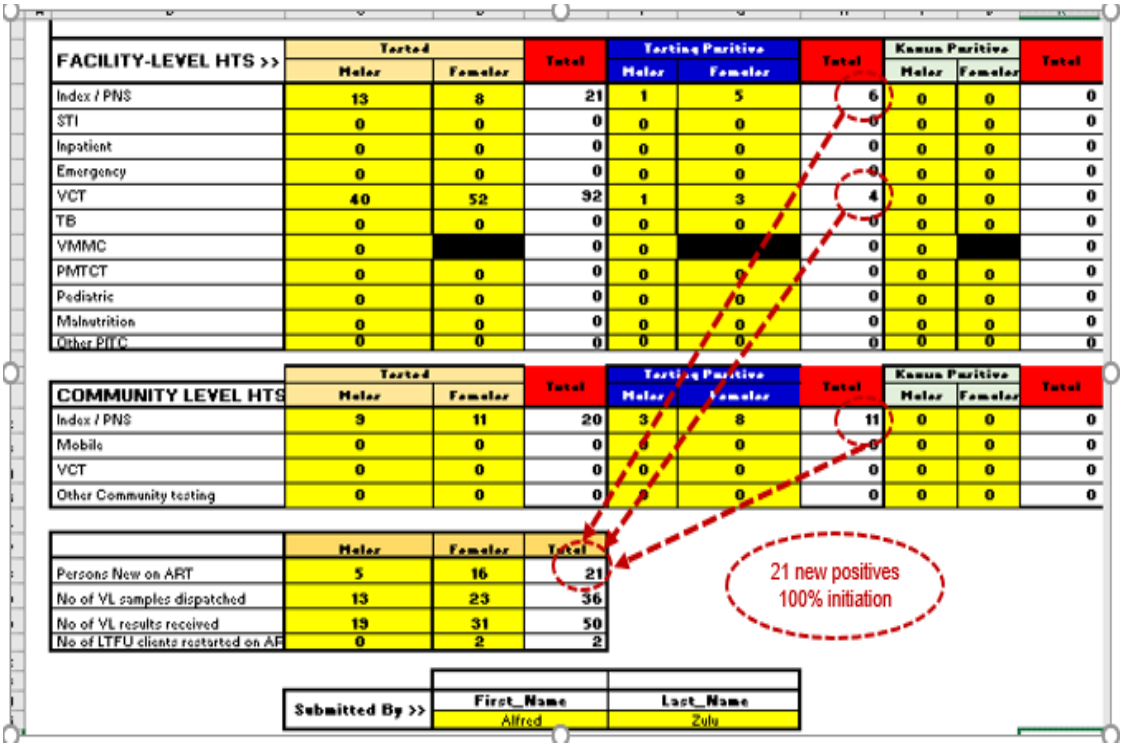
What Worked: *Essentials for successful implementation*

- Buy in from health facility management
- Daily reporting and changing strategy when results were not optimal
- Adequate counselors to cover most entry points, including weekends

What did NOT work: *Practices to avoid*

- Lack of space in outpatient department (OPD)
- Inadequate number of staff (counsellors)
- Overcrowding

Fig. 1: Daily reporting by entry point template



FACILITY-LEVEL HTS >>	Tested		Total	Testing Positive		Total	Known Positive		Total
	Males	Females		Males	Females		Males	Females	
Index / PNS	13	8	21	1	5	6	0	0	0
STI	0	0	0	0	0	0	0	0	0
Inpatient	0	0	0	0	0	0	0	0	0
Emergency	0	0	0	0	0	0	0	0	0
VCT	40	52	92	1	3	4	0	0	0
TB	0	0	0	0	0	0	0	0	0
VMMC	0		0	0		0	0		0
PMTCT	0	0	0	0	0	0	0	0	0
Pediatric	0	0	0	0	0	0	0	0	0
Malnutrition	0	0	0	0	0	0	0	0	0
Other PITC	0	0	0	0	0	0	0	0	0

COMMUNITY LEVEL HTS	Tested		Total	Testing Positive		Total	Known Positive		Total
	Males	Females		Males	Females		Males	Females	
Index / PNS	9	11	20	3	8	11	0	0	0
Mobile	0	0	0	0	0	0	0	0	0
VCT	0	0	0	0	0	0	0	0	0
Other Community testing	0	0	0	0	0	0	0	0	0

	Males	Females	Total
Persons New on ART	5	16	21
No of VL samples dispatched	13	23	36
No of VL results received	19	31	50
No of LTFU clients restarted on AR	0	2	2

21 new positives
100% initiation

Submitted By >>	First_Name	Last_Name
	Alfred	Zulu

Hotspot mapping and planning

Purpose: To Increase case identification in the community. Providing HTS services in hotspots is a proven strategy for improving access to HIV testing services among individuals who are highest risk of acquiring and transmitting HIV. **A hotspot** is defined as a geographic area or location with evidence of high prevalence of HIV, STIs or behaviors that put people at risk for acquiring HIV infection. Hotspots may include a *bar or beer tavern, a lodge, brothel, street corner or a night club*.

Resources Required:

1. HIV test kits and infection prevention supplies
2. CT Counsellors, Community Mobilizers and healthcare workers (HCWs)
3. CT Register/Notebook and Patient Locator Form (LF), result slips
4. Transport, communication and security arrangements
5. Condoms, lubricants and information, education, and communication (IEC) materials.

A hotspot map that is used to visually represent where testing will take place

Methodology:

Preliminary steps:

1. **Conduct a rapid assessment** of the community to identify, list and map hot spots.
2. During this quick assessment, **identify if there has been recent testing** in the community before and contact local leaders.

Next steps to accomplish:

1. **Identify and meet** local authorities, stakeholders and gatekeepers/queen mothers, bar owners.
2. **Obtain their verbal and/or written approval**. A formal letter from the provincial/district health authorities can be used.
3. **Visit lodge, bar owners, and market chairpersons** to seek cooperation and confirm the opening time and closing time for each venue you plan to visit.
4. **List potential hotspots** and prioritize those with highest HIV positive yield in highest volume of people to be tested. Be prepared to change to a new location as soon as new HIV positive results are not emerging anymore.
5. **Identify certified HTS counsellors and mobilizers**, giving preference to those who have participated in previous community events and know the area well.
6. **Contact the health facilities nearest to the hotspot** to develop a clear mechanism for same day linkage and ART initiation of hot spot clients who test positive.
7. **Review checklist of resources/materials** to ensure everything is in place before visiting the venues.

Measurement Criteria - Indicators of Success:

- Number of clients tested at each hot spot
- Number of clients tested HIV positive
- Number HIV positive clients initiated on ART on the same day
- Number HIV positive clients initiated within 7 days

What Worked: *Essentials for successful implementation*

- Buy-in from the community members and health facilities where the outreach activities took place.
- Health facility staff introducing the team and new services you plan to offer to community leaders, gatekeepers and members of the local community establishes rapport and clearly highlights the objectives, methods and intended outcomes of the activities before beginning actual HTS delivery.
- Being flexible to accommodate most convenient hours for testing as stated by each target group (daytime for female sex workers (FSWs) at brothels, early evening for patrons at bars, etc.).
- Incentivizing health care workers to enable extended clinic hours for patients who test positive to be escorted to start same day ART.
- Readily available transport or volunteers for immediate active/escorted referral of positive clients.

What did NOT work: *Practices to avoid*

- Going into the hotspot community and introducing the activity without first informing and involving local stake holders including the local Health Center, bar and lodge owners.
- Starting community activities without first looking at the check list and to ensure that all items are available.
- Conducting activities without involving HCWs from neighboring facilities who will initiate HIV positive clients (risks losing the clients)

Moonlight testing

Purpose: To increase case identification during evening and night hours in HIV high risk settings. To increase the chances of providing HIV testing to high risk settings sometimes during the evening and night. This testing approach can be used to find female sex workers (FSW), men who have sex with men (MSM), truck and taxi drivers.

Resources Required:

1. HIV test kits and infection prevention supplies
2. CT Counsellors, Community Mobilizers and health care workers (HCWs)
3. CT Register/Notebook and Patient Locator Form (LF), result slips
4. Transport, communication and security arrangements

ZPCTIIB technical staff supporting orderly client flow during moonlighting at Senama, Luapula province

Methodology:

1. **Preliminary steps**:
   - Follow your hotspot map and set up a tent or mobile van in the place where the testing will take place. Prioritize brothels, local bars/night clubs with potentially high yield.
   - Check that you have adequate light, and all other essentials (see checklist)
   - Ask mobilizers to start sending clients to the tent or the vehicle.
   - Counselors should start testing observing the 5'Cs: *Consent; Confidentiality; Counselling; Correct test results; and connection/linkage to prevention, care and treatment.*
   - Organize client flow to ensure that there are no crowds and minimize waiting time.
   - Take contact information (phone number and flash it to make sure it rings. Record an accurate residential address).

2. **Testing:**
   Follow the algorithm and ensure there is adequate light to read the results.

3. **Next steps after testing**:

   Those who test negative
   - Provide education, condoms and inform them to test again after three months.
   - For men, refer for voluntary male medical circumcision (VMMC) if applicable.

   Those who test positive
   - Give post-test results (maintain confidentiality). Fill the locator form.
   - Ask about other sexual partners.
   - Refer to onsite clinician to conduct assessment and provide an ART starter pack or CTX.
   - Escort to the clinic for initiation if there is no onsite clinician.

Measurement Criteria:

1. Number of clients tested for HIV
2. Number of clients who tested HIV positive and received results
3. Percentage of clients who tested HIV positive (calculate yield); if less than 10% consider moving to another location
4. Number of HIV positive clients initiated on ART on the same day
5. Number HIV positive clients initiated within 7 days

Post-test counselling during moonlight testing at Senama, Luapula province

What Worked: *Essentials for successful implementation*

Testing at the small bars and night clubs helped to identify many men who had never tested and those who were known positives and stopped ART. Using local mobilizers helps to motivate others to test. Bars where alcohol was very cheap had higher number of people accepting HIV test, as well as higher yield among those tested. Persons perceived to be drunk were excluded from HIV testing. Thus, the counsellors' judgement regarding clients' state of mind at the time of testing is essential before testing is conducted.

What did NOT work: *Practices to avoid*

Sometimes overwhelming response led to long queues and increased waiting time. Testing numbers were very low in places where most people were perceived to be drunk, as well as places were expensive drinks were sold (higher class bars and night clubs)

Community resources recruitment

Purpose: To serve as a guide in the recruitment of community mobilizers and effectively utilize them to increase demand for testing during a targeted testing outreach and linkage to treatment.

Resources Required:

1. Committed community mobilizers (CMs) who are ready and willing to work at night.
    - The best mobilizers are members of the community where testing is taking place. They could be community volunteers, bar men or women, patrons and queen mothers or gate keepers.

      The roles of the different cadre of staff include:
        - **Community mobilizer**: To invite potential clients for testing. To maintain confidentiality, all mobilizers should be given an orientation about confidentiality. Mobilizers can also be used to escort HIV positive clients to the health facility. In this role, PLHIV volunteers who are members of a support group at the health facility are appropriate.
        - **Lay counselor:** To provide pre-test information, conduct HIV testing and post-test counseling, including initial treatment preparation for those who test HIV positive.
        - **Prescriber:** To enroll HIV positive clients. The prescriber can be onsite at the testing locations or wait for escorted clients to arrive at the clinic. The goal is to initiate antiretroviral therapy for all new HIV positives patients on the same day they are diagnosed or not later than 7 days from the date of diagnosis.

2. Refreshment, transport, communication, and security arrangements
    - Low cost incentives are critical to successful implementation of targeted community testing. See sample budget for planning targeted testing.
    - The health care workers used should be from the health facility in the same catchment area as the community testing site. Incentives are required for them to work during night and weekend hours. No salary top-ups were paid for HCWs doing their routine jobs.

Methodology:

1. **Meet local stakeholders** e.g. gate keepers, bar owners to identify known local community mobilizers.
2. **Orient CMs on confidentiality** and have them sign CM confidentiality agreement if needed.
3. **Explain CM roles** and expectations.
4. **Conduct mapping and identification** of potential hot spots (see Hotspot mapping toolkit).
5. **Prioritize hotspots** such as inexpensive lodges, brothels, local bars, taverns and night clubs; where clients are more likely to engage in unsafe behaviors.
6. **Plan joint meeting with CT counsellors and CMs** to finalize planning. During this meeting, agree on location, duration of the testing event(s), client flow, referral and other procedures.

Measurement Criteria:

- Number of hot spots area identified
- Number of CMs recruited per hotspot
- Number of clients mobilized and successfully tested for HIV
- Number of clients testing HIV positive
- Percentage of HIV positive clients initiated on ART

FACILITY NAME			
TARGET OF POSITIVES PER NIGHT	5		
TOTAL NIGHT	5		
Description/Item	**No of days**	**Unit Cost**	**Total Amount**
		Kwacha	Kwacha
Counselor 1	1	135.00	135.00
Counselor 2	1	135.00	135.00
Mobilizer 1	1	135.00	135.00
Mobilizer 2	1	135.00	135.00
Driver	1	135.00	135.00
Sub Total			675.00
Grand Total			**675.00**

Activity budget for lunch and transport at government approved rates

What Worked: *Essentials for successful implementation*

Going to the underserved low-income areas and working with local leadership helps to identify more people who have never been tested for HIV. Mobilizers who reside in the local community were more effective in mobilizing their peers and neighbors.

What did NOT work: *Practices to avoid*

Outreach activities that coincided with local community events such as football matches and wedding ceremonies resulted in low HIV positive yields. Also, online payment of volunteer mobilizers was hampered by their lack of bank accounts.

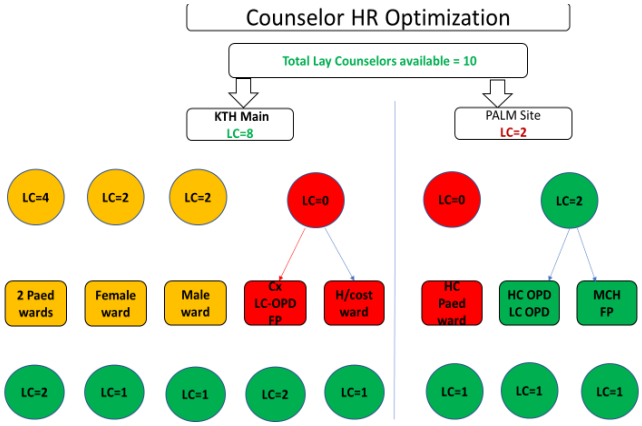
Facility HIV testing optimization

Purpose: To optimize health facility testing and increase HIV positivity yield.

It is important to make sure that all patients who come to a heath facility have an opportunity to know their HIV status. Implementing this modality requires ensuring that high yield entry points are well staffed and able to test all patients. This requires re-allocation or redistribution of existing health care workers (HCWs), especially counselors; training and retraining or orienting them to newer testing modalities; and making sure that all entry points are maximized.

Note: *Psychosocial and lay counselors at a facility can be used more effectively to implement testing and cover all entry points. The purpose of covering all possible entry points is to maximize the opportunities for testing all patients who come to the health facility.*

Fig. 2: Reallocation of counselors



Resources Required:

1. Psychosocial, lay counsellors and other staff should be oriented to the new HIV testing strategies e.g. index testing and partner notification services (PNS).
2. Prioritize placement of counsellors in all **entry** points with priority for high yield entry points such as sexually transmitted infection (STI), admission wards and tuberculosis (TB) clinics. Place more counselors at potentially high yield, high volume entry points.

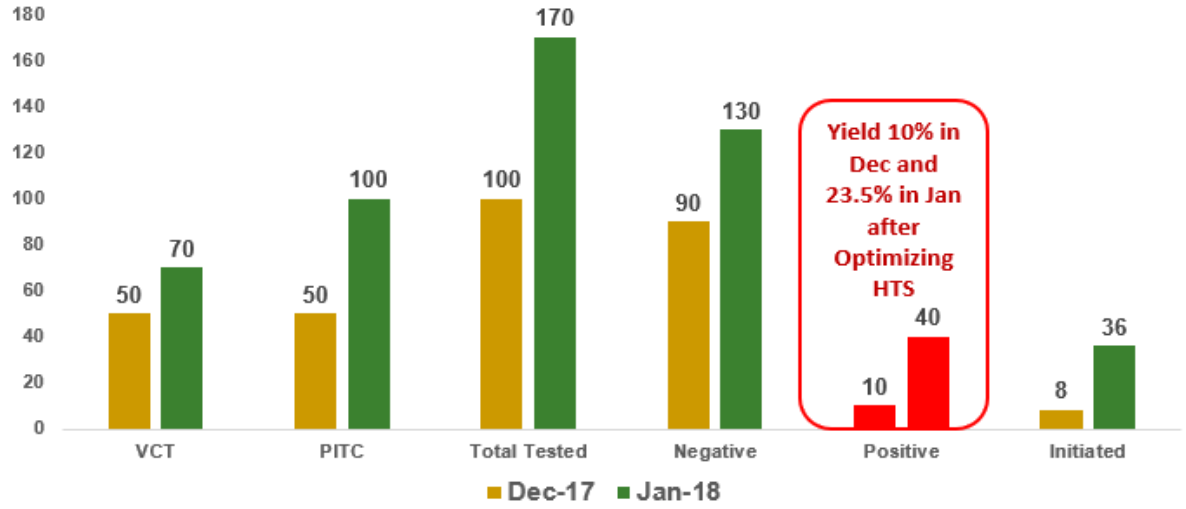
Methodology:

1. **Meet facility management and their healthcare teams** to discuss optimizing testing at the facility as per MOH guidelines.
2. **Meet with the laboratory in-charge** and assess adequacy of stocks of HIV test kits to cater for the potential increase in demands when routine HIV testing is introduced at the health facility. Review quality assurance/quality control (QA/QC) procedures.
3. **Discuss patient flow** and reach consensus on testing point (where) to integrate HIV rapid testing services, e.g. malaria testing corner at outpatient department (OPD), TB corner. Choose a site that will cause minimal disruption to existing patient flow but also facilitate larger testing volumes.
4. **Assign counselors and set testing targets** for each entry point

Fig. 3: Tool used to aid discussion of counselor reallocation

Testing modalities	VCT	PMTCT	PITC	Index testing	PNS	Targeted outreach	EID	TB	VMMC	Total
Contribution of target	10.00%	5.00%	22.22%	18.33%	22.22%	11.11%	0.00%	11.11%	0.00%	100%
Counselors/HR allocation	1	1	3	2	3	1	0	1	0	12
HIV positve yield	5%	5%	12%	40%	35%	7%	2%	40%	2%	
HTC_TST_POS_target	2	1	3	3	3	2	0	2	0	15
HTC_TST_target	40	20	25	8	9	29	0	5	0	136

Fig. 4: Excellent results from optimizing testing at Twatasha clinic in January 2018, compared to December 2017.



Measurement Criteria - Indicators of Success:

- Number of clients tested at different entry points
- Number of clients tested HIV positive, disaggregated by entry points
- Number of clients initiated on ART on the same day
- Number of clients initiated on ART within 7 days

What Worked: *Essentials for successful implementation*

- Buy in from health facility management especially the sister-in-charge
- Daily reporting and changing strategy when results were not optimal
- Having adequate counselors to cover most entry points
- Integrating HIV testing services into malaria rapid diagnostic tests (RDT) reduced feelings of stigma and improved uptake of HIV testing services

What did NOT work: *Practices to avoid*

- Starting optimization processes before changing negative perception of some health facility in-charges on making/integrating HIV testing as routine test
- Optimizing testing when facility staffing is inadequate

Partner notification services (PNS) and index testing

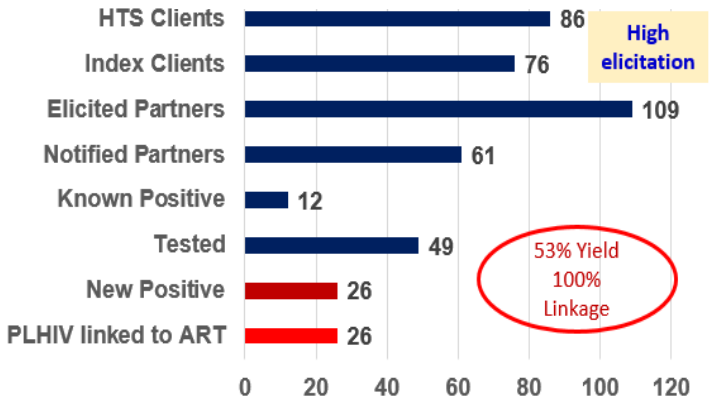
Purpose: To improve HIV case identification using through snowball effects (Index/PNS)

All newly diagnosed HIV positive clients should be "indexed" and all elicited partners invited to test. PNS is a voluntary process whereby a trained provider asks people diagnosed with HIV (index clients) about their sexual partners and then, with the consent of the index client, each listed partner is: (1) contacted, (2) informed that they have been exposed to HIV, and (3) offered voluntary HIV testing services (HTS). All patients who are not on treatment or those who have a high viral load have a higher likelihood of transmitting HIV to their sexual partners. Thus Index/PNS plays a very important role in breaking the transmission cycle. This tool is intended to help with planning and implementation of Index/PNS services.

Resources Required:

1. HTS registers (with updated client contact details)
2. High Viral Load registers
3. PNS register
4. Locator form with family census
5. Counselors and Community Based Volunteers (CBVs)
6. Updated SmartCare database
7. Talk time/Airtime vouchers
8. Incentives

Fig. 5: PNS Outcomes January2018: Twapia Clinic



Methodology:

1. **Preliminary steps**:
   - **Train/orient** health care workers, facility and community-based counselors in PNS (can be accomplished in a half day)
   - Use **program data** to identify all new HIV positive clients, other clients who have not been "indexed" and those with high viral loads.
   - **"Indexing" new HIV positives into PNS (key steps to be communicated to PNS team):**
   - **Counselors introduce PNS** to index clients during posttest counseling emphasizing benefits of disclosure and assuring confidentiality.
   - **Counselor encourages index client** to name all sexual partners (aim to elicit at least two partners per index).
     - For female index (not tested during pregnancy), also elicit children under 15 years.
   - **Counselor assesses** for Intimate Partner Violence (IPV).
   - If no IPV, **counselor engages elicited partner(s)** based on suitable approach(es) (passive; contract; provider referral; dual referral being mindful of IPV).
   - **Counselors contact all elicited partners** following "steps for phone call" for partners with phone numbers and "steps for home visit" for partners without phone numbers.
   - **Elicited partners are invited to the clinic** for testing or tested at home, based on their preferred options. All new HIV positive clients are further designated as new index clients, and PNS continued to snowball to newer clients.

2. **Indexing previously diagnosed patients:**
   - Use updated SmartCare or High Viral Load register to select clients with **High VL (>1000 copies)**
     - The Data Entry Clerk (DEC) should generate a list of all clients with high viral load (>1000 copies/ml).
     - The DEC should list all newly identified PLHIV in the past 6 months and share with the PNS team.

3. **Same steps listed above are followed for new patients**.

Measurement Criteria - Indicators of Success:

- number of new positives enrolled for PNS
- number of sexual partners elicited
- number of elicited partners tested
- number of elicited partners testing HIV positive
- Proportion of elicited partners testing HIV positive (yield)

What Worked: *Essentials for successful implementation*

- Success of PNS depends on counselors working together and sharing tasks. For this reason, all counselors need to be oriented to all testing strategies including Index and PNS. Identifying a coordinator can make the PNS team work better.
- Make sure there is talk time for coordinators to use to contact partners who have phone numbers.
- Prioritize specific sexually active age groups for examples (males 25-49 years, females 20-45 years) based on preliminary data leads to more elicited partners and higher chances of breaking the transmission cycle.
- Testing only children who are less than 15 years and not all family members.

What did NOT work: *Practices to avoid*

Training only some counselors and expecting that they would do PNS. Conducting index for other family members reduces yield and wastes time and resources, while generating very low yield

Viral load samples and results management

Purpose: To improve processes for VL sample collection, transportation, laboratory processes, return and use of viral load results

All patients who are on treatment for longer than six months should receive a viral load (VL) test. For this to happen, there is need for close collaboration between the clinical, strategic information (SI), and laboratory staff. A VL team should be set up with representation from these three groups. There are two groups of patients to prioritize for VL testing: **EXISTING patients** who have been on treatment and have never had a VL test (catch up group) and **NEW patients** who just become eligible. In addition, patients who have high VL (>1000) should be appropriately managed, including receiving three Enhanced Adherence Counselling (EAC) sessions and a repeat VL test afterwards.

This tool will help ensure that all patients who need VL test receive one, that samples are taken, transported and that results are used to improve care. To do this, the following steps apply:

A. **Ordering a VL test** at a healthcare facility
B. **Transporting VL sample** from a healthcare facility to the laboratory
C. **Managing VL samples** in the laboratory and returning results to the health facility
D. **Handling VL test results** at a healthcare facility
E. **Managing patients with high VL (>1000)** at the health facility

Resources Required:

1. **Sample collection**
    - Viral load requisition forms
    - Cooler boxes
    - Volunteers, lab staff
2. **Transporting VL Samples**
    - Motorcycles
    - Driver, transport, schedule
    - Lab hubs
3. **Viral Load Testing (lab)**
    - Reagents and consumables
    - Sample processing units
    - Lab staff
4. **Handling VL Results**
    - Viral load registers
    - High VL register
    - Community volunteers

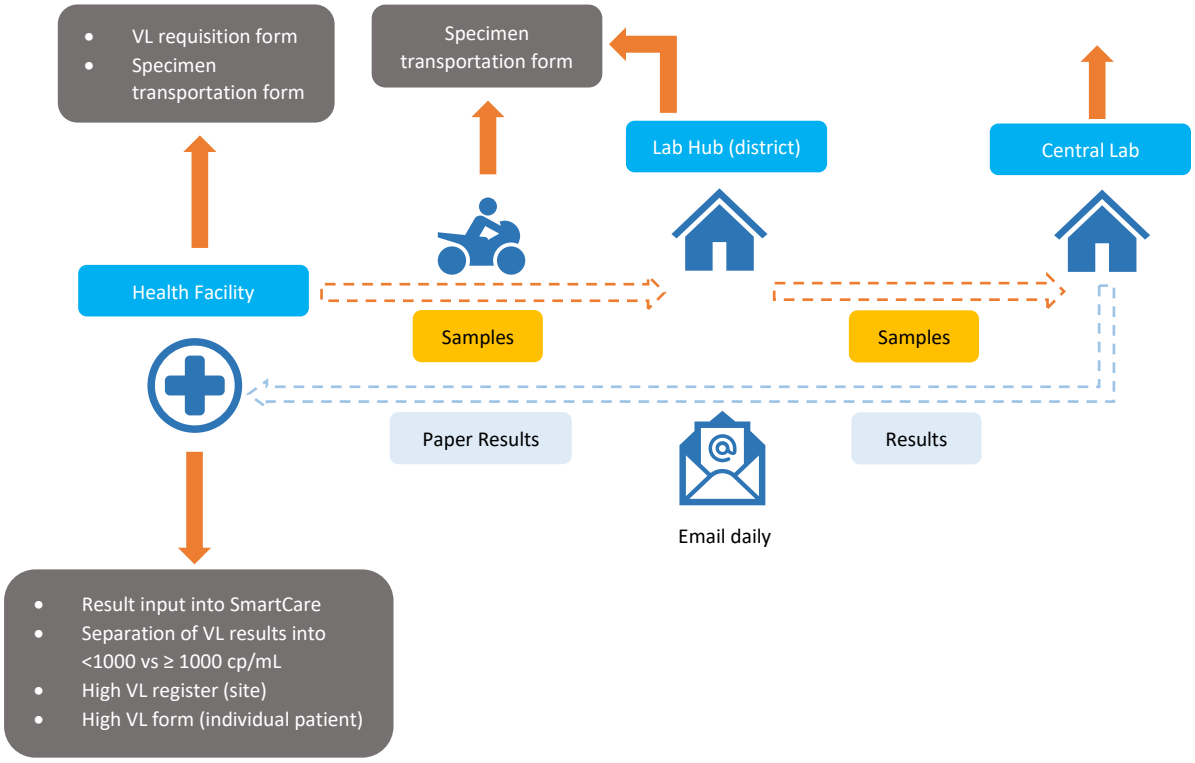
Methodology:

1. **Preparing VL ordering (before visit):**
    - Designate a VL focal person within the antiretroviral therapy (ART)/maternal child health (MCH) clinic.
    - Flag patient charts for clients due for a VL and indicate date of next VL test on patient ART card.
    - Include VL in the appointment book in 'comment box' and flag patient charts due for VL test.
2. **Preparing VL ordering (during visit)**
    - Complete the VL requisition form & collect sample.
    - Lab staff complete the activity log and prepare sample for dispatch.
    - Focal person reviews all VL requisition forms for accuracy & completeness before sample is dispatched to the hub.
    - Pharmacy dispenser ensures client has provided blood sample before dispensing drugs.
3. **Transporting VL Samples from the facility to the hub**
    - Facility Lab person packs processed samples in cooler boxes.
    - VL focal person reviews all VL requisition forms & confirms processed samples ensuring all information is completed (e.g. facility name, complete ART number)
    - VL focal person & driver complete the activity log.
    - VL focal person dispatches reviewed forms and respective samples to the hub.
    - Lab focal person at the hub receives processed samples in cooler boxes.
    - Lab person reviews all VL requisition forms for accuracy & completeness before sample is accepted by the hub.
    - Driver & lab person fills out the activity log to confirm receipt.
4. **Transporting VL samples from the Hub to the PCR lab**
    - Driver & lab person fills out the activity log to confirm handover of samples.
    - Hub Lab person dispatches reviewed forms and respective samples to PCR lab per schedule.
5. **Handling VL Results**
    - **Emailed results**
        - DEC receives email copy of VL results from the PCR lab.
        - DEC identifies those with VL >1000, generates list of patients with high VL (Refer to toolkit for community tracking).
    - **Paper results**
        - Lab/VL focal point receives paper results, updates daily sample log & reconciles result with requisition. Lab/VL focal person delivers results to the DEC.
        - DEC ensures:
            - VL results are sorted by VL levels into < 1000 copies/ml and ≥1000 copies/ml.
            - High VL results (≥1000 copies/ml) are entered in High VL register and appointment book.
            - Community team is notified for immediate tracking (refer to toolkit for community tracking).
            - DEC updates Smart Care and inserts the VL results in patient files.
            - VL result will be recorded in the patient care/treatment card by the clinician.

Measurement Criteria - Indicators of Success:

- **Sample collection**
  - Number of client charts due for VL flagged and documented in appointment book.
  - Number of samples collected from eligible clients (per day).
  - Availability of VL focal person at the facility.
- **Transporting VL Samples**
  - Number of hours taken for sample to reach hub (Turn Around Time-TAT).
  - Number of hours taken for sample to reach PCR lab (TAT).
- **Handling VL Results**
  - Number of VL results received (daily).
  - Number and percentage of VL results updated in Smart Care.
  - Number and percentage of VL results filled.
  - TAT for results (lab).
  - TAT for results (clinical).
- **Managing patients with High VL**
  - Number and percentage of results >1000 (daily).
  - Number and percentage of patients with high VL (>1000) contacted.
  - Number and percentage of patients with high VL who receive three Enhanced Adherence Counselling sessions.
  - Number and percentage of patients who receive a repeat VL test.
  - Number and percentage of patients changed to 2nd line.

Fig.6: Action steps for viral load samples and results management



What Worked: *Essentials for successful implementation*

- Use of volunteers to invite patients for catch up VL
- Introduction of shifts for lab staff helped maximize machine use and output
- Viral load sample collection drive increased sample collection for all eligible clients.

What did NOT work: *Practices to avoid*

- Persistent lack of reagents and other consumables especially Sample Processing Unit (SPUs)
- Frequent breakdown of VL machines
- Sub-optimal management of patients with high VL
- Viral load sample collection drive increased sample collection for all eligible clients; while erroneously including other patients, who were previously lost to follow up and just re-starting ART. Thus, diluting the true viral load suppression rates for the

Tracking known HIV positive clients not Initiated on ART

Purpose: To improve tracking of known HIV positive clients who are yet to be initiated on ART

Resources Required:

1. Updated HTS registers
2. Updated PreART registers
3. Updated SmartCare database
4. Current Adherence Support Worker (ASW) database & ASW catchment area of expertise

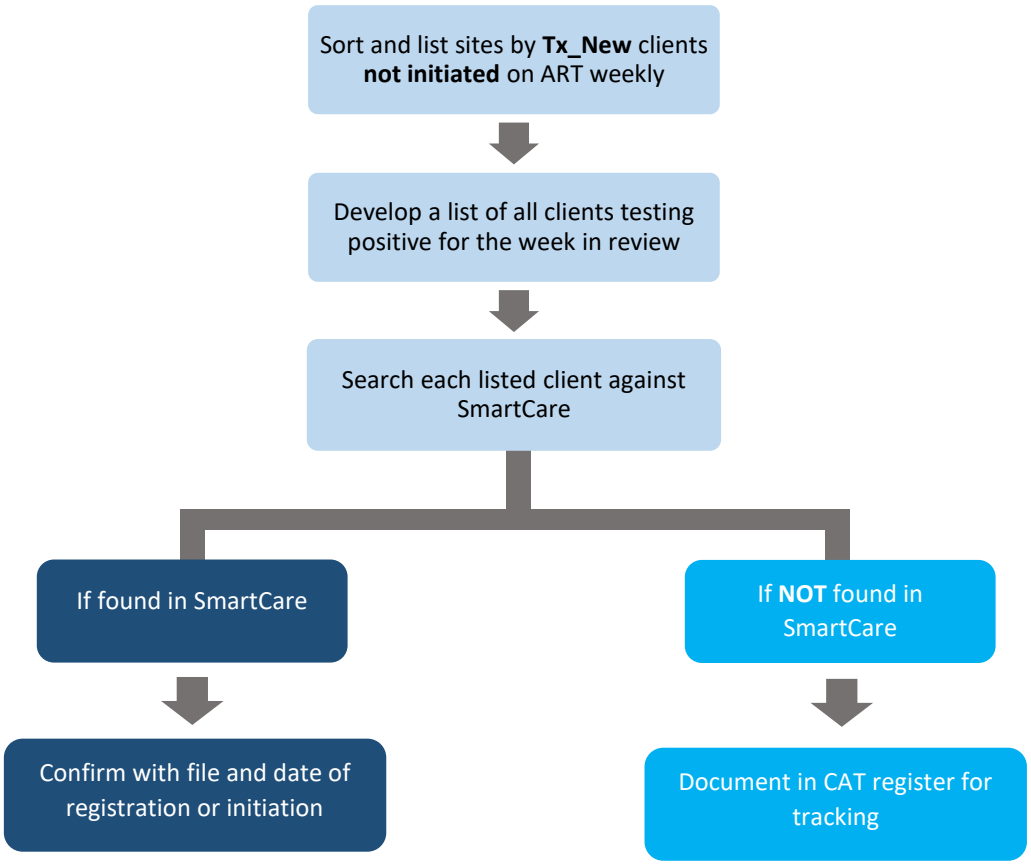
Methodology:

1. On a weekly basis, rank sites by number of Tx New clients **not initiated** on ART.
2. **Develop a list** of all clients testing positive for the week being reviewed.
3. **Search each listed** client against SmartCare.
4. If found in SmartCare, **confirm date of registration** or initiation in client file.
5. If not found in SmartCare, **document in community ART tracking (CAT)** register for tracking.

Measurement Criteria - Indicators of Success:

1. Number of new HIV positive clients not initiated on ART
2. Number of new HIV positive clients linked and initiated on ART
3. ART linkage rate at the health facility

Flowchart: Management tool for tracking HIV+ clients for initiation



Improving retention in HIV care for ART clients

Purpose: To improve retention in HIV care for clients on ART

Resources Required:

1. Updated SmartCare
2. Updated Daily Activity and Events registers
3. Valid and reliable historical program data
4. Current Adherence Support Worker (ASW) database & individual ASW catchment area of expertise

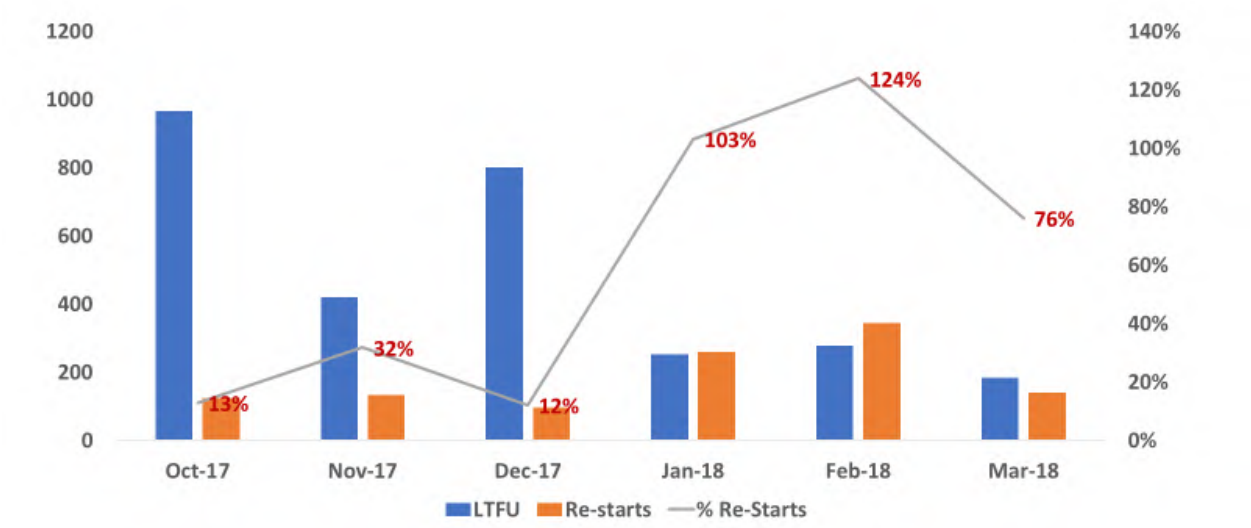
Methodology:

1. Rank sites by clients late for pharmacy pick up (>60 days).
2. Record each client >60 days late for last appointment in CAT register.
3. Assign ASWs to Zones (based on catchment area expertise) to follow up clients.
4. ASWs make up to three tracking attempts (phone, buddy, home visit).
5. Update community ART tracking CAT register with individual outcomes for each client.
6. Document and update daily activity register (DAR) and Events Register.

Measurement Criteria - Indicators of Success:

1. Proportion of all listed clients with documented outcomes (should be 100%)
2. Documented evidence of up to three tracking attempts made including phone, home, or tracing of buddy

Fig. 7: Differentiating care through pharmacy dispensation and appointment scheduling improves re-starts



Improving patient appointment scheduling

Purpose: To improve patient appointment scheduling

Resources Required:

1. Appointment book/diary
2. Updated SmartCare database

Methodology:

1. Serially list all active clients in SmartCare.
2. Divide number of Tx_Current patients by five to place them in five daily cohorts.
3. Divide each daily cohort by four to spread them over weeks per month.
4. Divide each weekly cohort by three to schedule over quarters per year.
5. For high volume sites, divide each quarterly cohort by two to spread them over morning and afternoon.
6. Indicate the cohort schedule on client card.

Measurement Criteria - Indicators of Success:

- Proportion of all active clients in cohort schedule
- Proportion of pharmacy appointments that correspond to cohort schedule

To decongest the clinic, teams implemented block appointments in appointment books/diaries

Improving linkage to ART initiation among HIV positive clients

Purpose: To improve linkage to ART Initiation among HIV positive clients

Resources Required:

1. Valid and reliable historical program data on new positives
2. Current human resource data and individual capacity
3. Updated HTS registers
4. Updated PreART registers
5. Updated SmartCare database
6. Current Adherence Support Worker (ASW) database and individual ASW catchment area of expertise

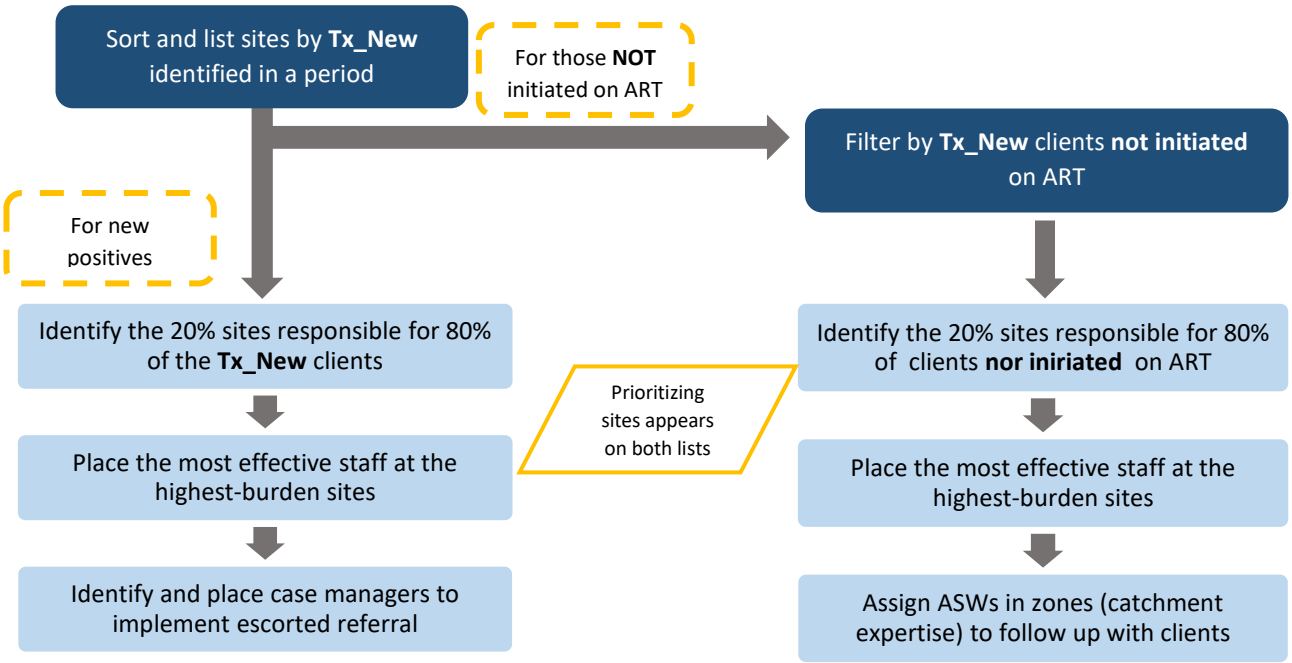
Methodology:

1. Rank sites by number of HIV positive clients diagnosed in a program during a defined period.
2. Rank sites by Tx_New clients not initiated on ART during the same defined period.
3. Identify the 20% of sites responsible for 80% of the HIV positive clients identified in (1) above.
4. Identify the 20% of sites responsible for 80% of the clients not initiated on ART in (2) above
5. Prioritize sites appearing on both lists, i.e. (3) & (4).
6. Place the most effective staff at the sites appearing top on both lists (highest burden sites).
7. Identify and place case managers to implement escorted referrals in the highest burden sites.
8. Monitor performance over time and make staff changes for greater impact, when appropriate.

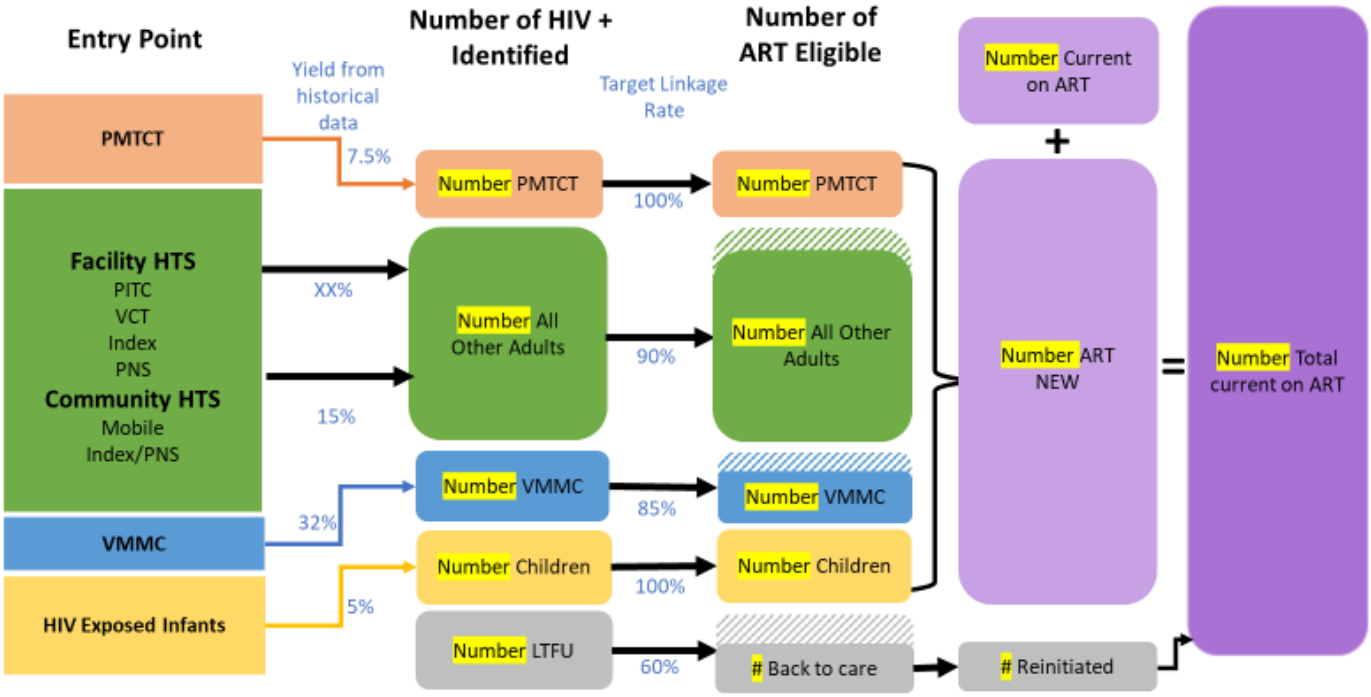
Measurement Criteria -Indicators of Success:

Proportion of all new HIV positives initiated on ART

Flowchart: Management tool linking newly HIV+ clients to ART initiation



Flowchart: Sample facility planning tool to optimize case identification, linkage and ART initiation



Flowchart: Community testing