



OPERATIONAL AND SERVICE DELIVERY MANUAL

FOR THE PREVENTION, CARE AND TREATMENT OF HIV IN ZIMBABWE

2022 EDITION



AIDS & TB Programme

Ministry of Health and Child Care, Zimbabwe



**Operational and Service Delivery Manual for the Prevention,
Care and Treatment of HIV in Zimbabwe**

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ABBREVIATIONS

AHD	Advanced HIV Disease	FP	Family planning	PHE	Provincial Health Executive
ANC	Antenatal care	FTC	Emtricitabine	PHQ	Patient health questionnaire
ART	Antiretroviral therapy	GAD	Generalised anxiety disorder	PITC	Provider-initiated testing and counselling
ARV	Antiretroviral	HCW	Healthcare worker	PLHIV	People living with HIV
ATV	Atazanavir	HIVST	HIV self-testing	PMTCT	Prevention of mother-to-child transmission
AZT	Zidovudine	HTN	Hypertension	PNC	Postnatal care
BP	Blood pressure	HTS	HIV testing services	POC	Point of care
CARG	Community ART refill group	ICF	Intensified case finding	POCT	Point of care test
CATS	Community adolescent treatment supporters	ICT	Information and communications technology	PPE	Pruritic popular eruptions
CBO	Community-based organisation	IEG	Impact and Effort Grid	PrEP	Pre-exposure prophylaxis
CHW	Community health worker	INH	Isoniazid	PT	Proficiency testing
CICT	Client-initiated counselling and testing	IPD	Inpatient department	QC	Quality control
CM	Cryptococcal meningitis	IPV	Intimate partner violence	QI	Quality improvement
CMV	Cytomegalovirus	IQC	Internal quality control	QMP	Quality Management Programme
CO	Clinical officer	IRIS	Immune reconstitution syndrome	QMS	Quality management systems
CrAg	Cryptococcal antigen	IUD	Intrauterine device	RGN	Registered nurse
CSF	Cerebral spinal fluid	LAM	Lipoarabinomannan assay	RoC	Recipient of care
CT	Computerized tomography	LF	Lateral flow	RTCCQI	Rapid test continuous quality improvement
CTX	Cotrimoxazole	M&E	Monitoring and evaluation	SADCAS	Southern African Development Community Accreditation Service
CXR	Chest X-ray	MCAZ	Medicines Authority Zimbabwe	SOP	Standard operating procedure
DBS	Dried blood spot	MFI	Model for Improvement	SRH	Sexual and reproductive health
DHE	District Health Executive	MMD	Multi-month dispensing	SSQ14	Shona Symptom Questionnaire
DHIS	District health information system	MNCH	Maternal and child health	STI	Sexually transmitted infection
DM	Diabetes mellitus	MoHCC	Ministry of Health and Child Care	TB	Tuberculosis
DMAIC	Define, Measure, Analyze, Improve and Control	MRCZ	Medical Research Council of Zimbabwe	TDF	Tenofovir
DMO	District medical officer	MRF	Monthly return form	TNS	Target not detectable
DNO	District nursing officer	MRI	Magnetic resonance imaging	TPT	Tuberculosis preventive treatment
DRTB	Drug-resistant tuberculosis	MSM	Men who have sex with men	TQM	5S-Kaizen-Total Quality Management
DSD	Differentiated Service Delivery	MTCT	Mother to child transmission	VIAC	Visual inspection with acetic acid and cervicography
DTG	Dolutegravir	MUAC	Mid upper arm circumference	VHW	Village health workers
DTP	Diphtheria, tetanus, pertussis	NAT	Nucleic acid testing	VL	Viral load
EAC	Enhanced adherence counselling	NCD	Non-communicable disease	VMMC	Voluntary medical male circumcision
ED-PrEP	Event-driven oral PrEP	NMRL	National Microbiology Reference Laboratory	UNAIDS	Joint United Nations Programme on HIV/AIDS
EDLIZ	Essential Drug List of Zimbabwe	NSAIDs	Non steroidal anti-inflammatory drugs	WHO	World Health Organization
EHR	Electronic health record	NVP	Nevirapine	ZADS	Zimbabwe ART Distribution System
EHT	Environmental health technician	OI	Opportunistic infections	YMMs	Young mother mentors
EID	Early infant diagnosis	OPD	Outpatient department	ZAPS	Zimbabwe Assisted Pull Systems
ENT	Ear, nose and throat	PC	Primary counsellor		
EPI	Expanded programme of immunisation	PCN	Primary care nurse		
EQA	External quality assessment	PCR	Polymerase chain reaction		
FBC	Full blood count	PDSA	Plan-do-study-act		
FCH	Family and child health	PEP	Post-exposure prophylaxis		

Background and Rationale for the Manual

By June 2022, 28.7 million people were receiving antiretroviral therapy (ART) in low- and middle-income countries. This increase in the number of clients on ART over the past decade has been achieved through political commitment, community mobilisation and significant domestic and international financial support.

Zimbabwe has been one of the countries worst affected by the HIV epidemic in sub-Saharan Africa. The latest estimates reveal a national HIV prevalence (15-49 years) of 14.7%. About 1.3 million people are estimated to be living with HIV, with 1,211,030 accessing ART by the end of June 2022. Prevention of mother-to-child transmission (PMTCT) coverage is estimated at 87% of those in need.

PMTCT coverage was at 87% as of Dec 2021. Ensuring adequate linkages and quality monitoring is now required, with the aim being to reach the 95-95-95 goals set by UNAIDS: 95% of those infected with HIV are identified; 95% of those identified access appropriate antiretroviral therapy (ART); and 95% of those on ART achieve virological suppression.

In 2022, the Ministry of Health and Child care launched its new HIV prevention, testing and treatment guidelines. These guidelines continue to support exciting new initiatives such as the further scale up of HIV self-testing (HIVST), pre-exposure prophylaxis (PrEP), transition to a DTG preferred first line and diagnosis and management of advanced HIV disease. In order to achieve the 95-95-95 goals while maintaining a quality service for people living with HIV, innovative programmatic strategies are needed along with active engagement of the community.

To accompany the 2022 clinical guidelines, which outline the **“what to do”**, this update of the *Operational and Service Delivery Manual* is aimed at giving guidance on the **“how to do it” with the aim of increasing retention at all steps of the cascade**. This is the third edition of the manual originally developed in 2014.

Chapter 1 outlines the best practices identified for the organisation of service delivery, defining the minimum package of care, scope of practice, training and mentorship strategies for human resources and further opportunities for decentralisation beyond the facility.

Chapter 2 introduces the concept of differentiated service delivery and describes the range of differentiated testing, prevention, initiation and ART delivery strategies that will be considered in Zimbabwe. For each strategy, the four building blocks addressing the “when, where, who and what” are described along with special considerations for specific sub-populations, such as children and adolescents, pregnant and breastfeeding women and key populations. In addition a new chapter builds on the goal of providing person centred care through the integration of other medical needs into existing DSD models for ART.

Chapter 3 provides key messages regarding the essential support services of pharmacy and laboratory and highlights the importance of monitoring and evaluation accompanied by quality improvement projects for the successful functioning of any HIV prevention, care and treatment programme.

Manual Development Process

The first and second editions of the Operational and Service Delivery Manual were developed in 2014 and 2017 respectively. The development process was spearheaded by a steering committee composed of representatives of the MoHCC and key stakeholders under the leadership of the Deputy Director for HIV and AIDS of the MoHCC. For the 2022 revision, the following steps were followed:

- Desk review of relevant documents, including background literature and systematic reviews, international guidance, national guidelines, policies and programme reviews
- Discussion and interviews with key stakeholders within the MoHCC, partners, service providers and service users
- Two iterative two day stakeholder consultative workshops
- MoHCC and external peer review

How to Use this Manual

This manual is for doctors, clinical officers, nurses, counsellors, pharmacists, health information officers, health promotion officers, community health workers and community-based organisations (CBOs) providing HIV prevention, care and treatment services to children, adolescents and adults (including pregnant and breastfeeding women).

Chapter 2 presents an integrated approach to DSD describing strategies across populations. Throughout the text, the icons outlined in Table 1 are used to highlight specific points and interventions for specific populations.

Tables 2-5 highlight the pages where interventions for specific populations are included.

Table 1 : Key for icons



Very important : Must Implement



Counselling activity (Primary counsellor or Nurse)



Special Considerations for Pregnant and Breastfeeding Women



Opportunity for Community and Facility Linkage



Activity performed by a clinician



Special Considerations for Children



Re-engagement



Special Considerations for Adolescents



Special Considerations for Key Populations



Table 2 : Special considerations for children (0–9 years)

PAGE	TOPIC
34	HIV testing services
52	ART Initiation
62-63,76,86,112-113	ART Follow Up



Table 3 : Special considerations for adolescents (10–24 years)

PAGE	TOPIC
34	HIV testing services
52	ART Initiation
64,76,86,114-115	ART Follow Up



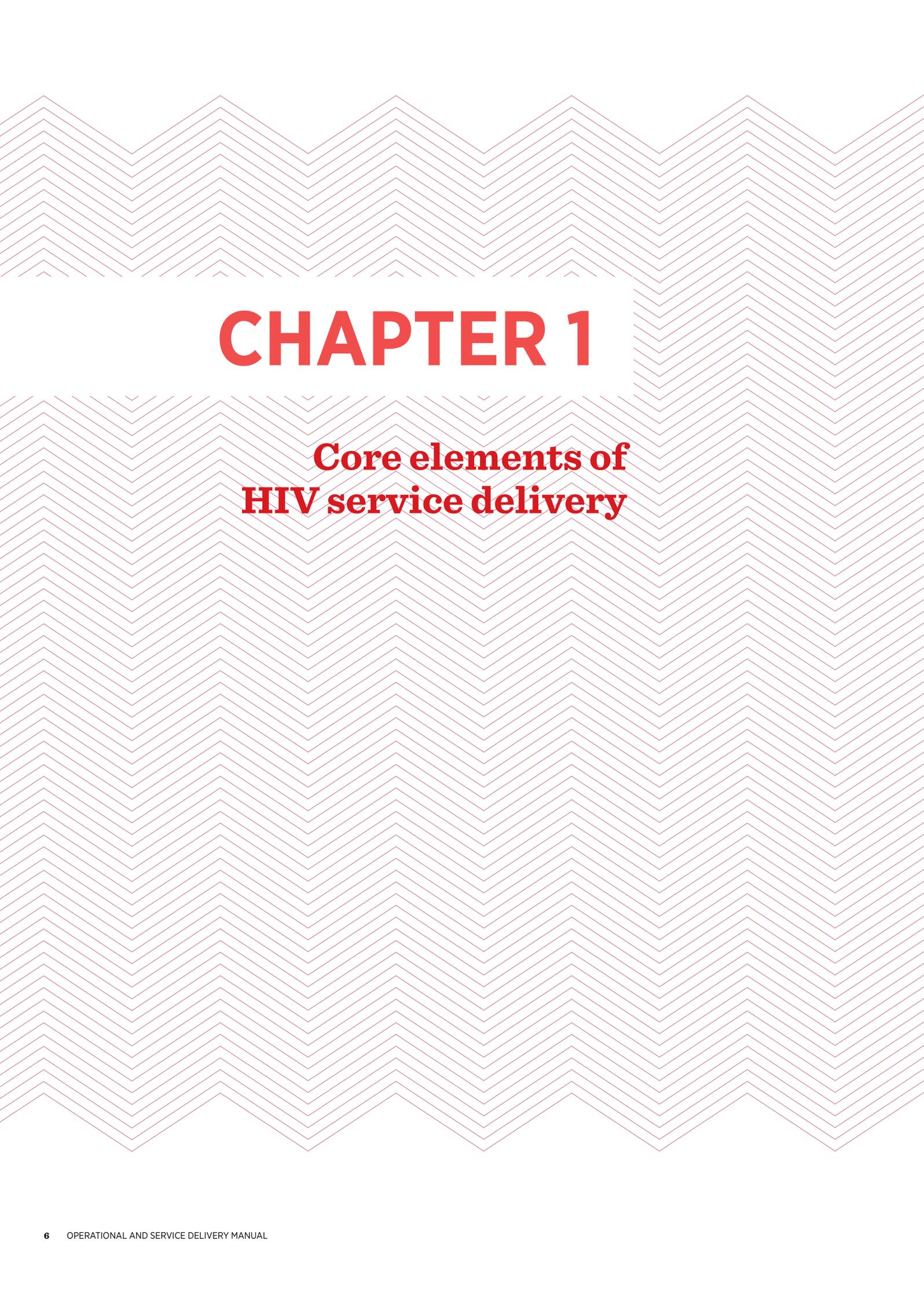
Table 4 : Special considerations for pregnant and breastfeeding women

PAGE	TOPIC
55	ART Initiation
76,86,118-121	ART Follow Up



Table 5 : Special considerations for key populations

PAGE	TOPIC
37	HIV testing services
76,80,86,122-124	ART Follow Up

The background of the page is a repeating red zigzag pattern. The pattern consists of multiple parallel lines that create a series of sharp, upward-pointing peaks and downward-pointing valleys, forming a continuous wave-like texture across the entire page.

CHAPTER 1

Core elements of HIV service delivery

1.1 The minimum package for HIV prevention, care and treatment services

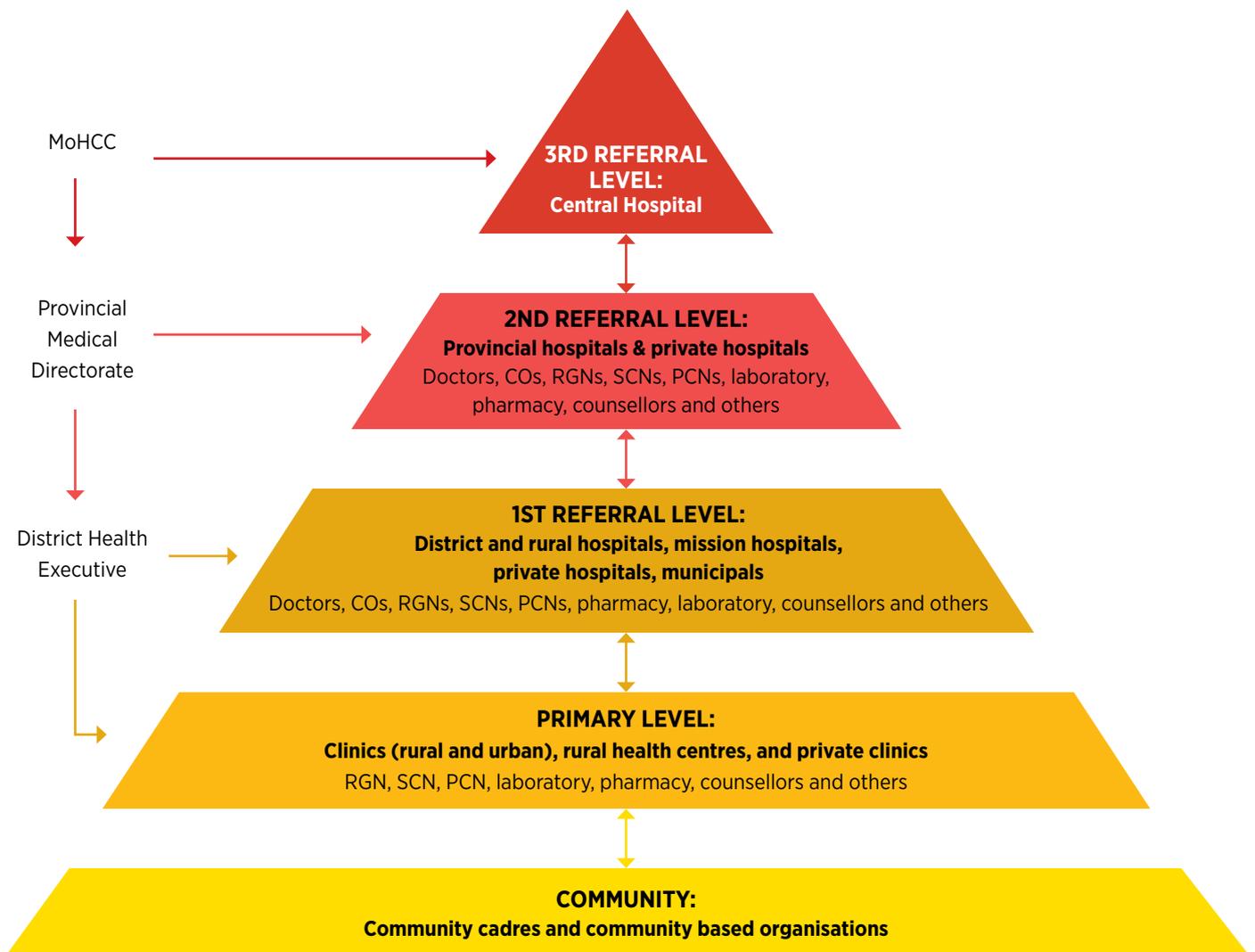
1.1.1 Background

All health facilities in Zimbabwe are expected to provide a minimum package of services for prevention, care and treatment of HIV for children, adolescents and adults (including pregnant and breastfeeding women).

The Zimbabwean health system is a tiered structure, as shown in Figure 1. In addition to the minimum package of

services, each successive tier of the health system will have additional responsibilities related to clinical management, mentorship, supportive supervision, pharmacy and laboratory support services, and monitoring and evaluation. In addition, as HIV care has been taken closer to the community, the role of community cadres (village health workers (VHW), community adolescent treatment supporters (CATS), key population peer supporters and expert recipients of care) has become more clearly defined across the cascade of care.

Figure 1: The Zimbabwean healthcare system



1.1.2 The minimum package for HIV prevention, care and treatment at all facilities

The minimum package of HIV prevention, care and treatment services should be provided at all health facilities from Monday to Friday, 8am to 4pm.



Extended opening hours (early morning, evening or weekend) should be considered during the decision process for differentiating HIV testing, prevention and ART service delivery according to the size of the clinic cohort and the needs of specific populations.

Children and adolescents at school will benefit from appointments outside school hours and during school holidays; working adults and vulnerable populations may benefit from an early morning clinic at 7-8am or a later clinic at 4-6pm. This could be provided once a week or once a month depending on the cohort size.

Table 6: The minimum package of services that should be provided at all tiers of the health care system

HIV TESTING SERVICES (SEE SECTION 2.2)	
<p>Facilities should provide Client Initiated Counselling and Testing (CICT) and Provider Initiated Testing and Counselling (PITC) for all recipients of care attending the facility using the adult and paediatric screening tools (See Section 2.2.2) (including couples, children and adolescents) at all entry points (OPD, TB, MNCH/SRH, EPI, IPD) regardless of the purpose of the visit. All pregnant and breastfeeding women of unknown status should be offered HTS.</p>	<p>All facilities should ensure that there are adequate staff members available to provide CICT and PITC (rapid HIV testing and collection of DBS for NAT testing) at all entry points of their facility.</p> <p>If there is not sufficient demand to place a dedicated staff member at all entry points, a clear referral system or rota should ensure that there is a trained primary counsellor or nurse available to provide HIV testing services (HTS) for all departments and wards during the day, at night and at weekends.</p> <p>Verification testing of all HIV-positive diagnoses must be made prior to ART initiation. This should be performed on a different sample and ideally by a different provider.</p> <p>Re-testing of HIV-negative recipients of care should be performed according to national recommendations based on the risk of exposure and specific population</p> <p>HIVST should be offered as an option for testing at the facility with the option for the client to test in privacy at the facility or to test at home.</p> <p>HIVST kits may also be distributed at the facility for clients to distribute to their partners.</p> <p>HIVST kits may also be distributed by community cadres.</p> <p> Facilities should link with their community-based cadres to mobilize their communities to attend facilities for HTS and to utilize HIVST distributed by community cadres.</p>

<p>Index case testing should be provided at the facility and in the community.</p>	<p>Any recipients of care who are living with HIV, recipients of care with an unsuppressed viral load and recipients of care returning to care after 28 days of interruption are considered to be index cases. Biological children under 15 years of age and all sexual partners of a recipient of care who is positive for HIV should be offered HTS.</p> <p>This may be offered:</p> <ul style="list-style-type: none"> • At the facility (with community-based support to encourage testing) • Where consent is given through community-based index client testing performed by the lay counsellor, nurse or community cadre, including CATS or key population peer supporters (this may also be done using HIV self-testing kits) • By offering HIV self-testing kits to the index case
<p>Provider-initiated testing should be incorporated into existing outreach activities.</p>	<p>Facilities should incorporate PITC for adults and children (including DBS for NAT) into existing outreach activities.</p>  <p>Facilities should link with community-based actors to mobilize the community to attend for HTS on scheduled outreach days.</p>
<p>Mobile targeted outreach testing should be organized on a regular basis in hotspot areas (at least quarterly).</p>	<p>Facilities should organize targeted mobile outreach testing to access those members of the community (men, adolescents and young adults, artisanal miners and key populations, such as sex workers, men who have sex with men, long-distance truck drivers and drug users) who do not regularly visit the health centre. To maximize these activities, facilities should analyse their testing data to see which groups are not attending the facility.</p>  <p>Facilities should link with community-based actors to mobilize recipients of care to attend for HTS services at planned outreach testing and counselling activities.</p>
<p>Community cadres (including CATS, key population peer supporters and expert recipients of care) have a role to perform HTS.</p>	 <p>Selected cadres will be trained to conduct HTS primarily using HIV self-testing kits. This will be under the supervision of the facility. Linkage between the facility and these community cadres will be essential to maximize the impact of these activities and ensure quality and data collection.</p>
<p>LINKING RECIPIENTS OF CARE TO PREVENTION, CARE AND TREATMENT</p>	
<p>Recipients of care testing negative for HIV should be proactively linked to prevention services.</p>	<p>Condoms and lube should be distributed alongside HTS.</p> <p>Linkage to voluntary medical male circumcision (VMMC) services should be ensured.</p> <p>Recipients of care at substantial risk of HIV transmission should be assessed for pre-exposure prophylaxis (PrEP) and linked where indicated on the same day or within one week (See Section 2.2.8).</p>
<p>Recipients of care testing positive should be proactively linked to ART services at a facility or through out-of-facility initiation and follow-up.</p>	<p>If the recipient of care tests positive at a facility, the HCW performing HTS should escort the recipient of care to ART services, ideally on the same day.</p> <p>If the recipient of care tests positive during outreach or community-based testing, it is the role of the person performing HTS to link the recipient of care with ART services. The MoHCC programme referral form can be used if it is not possible to escort the recipient of care directly.</p> <p>Where out-of-facility testing services are being provided, consider community-based initiation (Section 2.4.3) after completing the clinical and psychosocial readiness assessment.</p> <p>POC CD4 should be used during outreach testing activities to identify recipients of care with advanced HIV disease (AHD).</p>

PREVENTION (SEE SECTION 2.3)	
Provision of health education on how to prevent HIV transmission	<p>Education on HIV should be regularly included in the facility during daily health talks.</p>  <p>Community-based organizations must promote the prevention of HIV through HIV education in the community (such as in schools, workplaces, public gatherings, church functions and door-to-door health education).</p>
Provision of male and female condoms and lubricant	<p>Condoms and lubricant should be easily accessible at the facility, for example, available in toilets and waiting areas. Instructions on how to use condoms should be displayed at the collection points. Condoms should be proactively offered to anyone attending with an STI or for HIV testing services.</p>  <p>Facilities should link with community cadres, people living with HIV, church leaders and CBO members to distribute condoms. Condoms should be available in hotspots, such as beer halls and growth points.</p>
Treatment of STIs	<p>All facilities should provide syndromic STI treatment. Where mobile testing services are implemented with a trained nurse within the team, treatment of STIs may be integrated into the package of services.</p>
Linkage with VMMC	<p>All facilities should offer or refer recipients of care for VMMC (promote in health talks; have posters of locally available services).</p>  <p>Community cadres and community leaders should mobilize their communities to take up VMMC.</p>
Post-exposure prophylaxis (PEP)	<p>PEP should be available for</p> <ul style="list-style-type: none"> • All facility staff after accidental exposure to blood • Anyone presenting after an episode of sexual violence • Anyone assessed to have been exposed to a significant risk of sexual exposure (unprotected sex with a recipient of care known to be positive for HIV or part of a vulnerable group).
Pre-exposure prophylaxis (PrEP)	<p>PrEP should be provided to those at substantial risk of HIV according to the criteria outlined in the HIV testing, prevention and treatment guidelines in Zimbabwe.</p> <p>PrEP should be available in all facilities with trained healthcare workers. PrEP should be offered as a priority at the following entry points: STI, FP, ANC/PNC, OPD and IPD.</p> <p>PrEP should also be offered in the community with trained nurses and where appropriate resupplies, re-testing and psychosocial support can be guaranteed</p>
PROVISION OF ART SERVICES (SEE SECTIONS 2.4, 2.5 AND 2.6)	
All facilities should provide the basic package for differentiated ART initiation (see Section 2.4) to all recipients of care who test positive for HIV.	<p>All recipients of care who test positive for HIV, regardless of age and CD4 count, are eligible to start ART. Same-day ART initiation should be offered after assessing clinical and psychosocial readiness. If same-day initiation is not feasible, aim to initiate within 7 days.</p> <p>Recipients of care re-engaging in care should be assessed according to the algorithm on page 59.</p> <p>Facilities should provide access to:</p> <ul style="list-style-type: none"> • Clinical assessment and staging • TB screening, diagnosis (LAM as indicated, Xpert MTB/Rif), and treatment • CD4 testing (and other baseline investigations if available) • Cotrimoxazole and TB preventive therapy • If CD4 <200 cells/mm³, serum cryptococcal antigen screening (CrAg) and TB LAM should be performed.

	<ul style="list-style-type: none"> • Treatment and/or referral for opportunistic infections and cancers: • ART adherence preparation and initiation counselling for children, adolescents and adults (including pregnant and breastfeeding women). This should include an ART readiness assessment • Integrated SRH and FCH services, including treatment of STIs and screening for cervical cancer according to national guidance • Integrated family planning services • Integrated hypertension, diabetes and mental health services
PROVISION OF ART SERVICES	
<p>Facilities should provide a package of differentiated ART delivery for recipients of care (children, adolescents, adults, pregnant and breastfeeding women and key populations) established on treatment (see Section 2.6).</p>	<p>All facilities should have an appointment system, and recipients of care should be traced if they do not attend (Section 2.6.5).</p> <p>Facilities should provide the services outlined in the clinical and refill visit details (Section 2.6.3 & 2.6.4).</p> <p>A 6-month refill of ART and other integrated medications (CTX, TPT, FP, HTN/DM) should be provided.</p> <p>The choice of refill option available at an individual site should be based on a needs assessment. Models can be classified into four options:</p> <ul style="list-style-type: none"> • Individual model based at facility: fast track • Individual model not based at facility: outreach, health post, delivery by village health worker, CATS, key population peer supporter, drop-in centres • Group models managed by healthcare workers: clubs • Group models managed by recipients of care: CARGS <p> Facilities should link with community cadres, including CATS, key population peer supporters and expert recipients of care to strengthen treatment literacy and adherence, raise awareness around options available for ART delivery and perform defaulter tracing.</p>
<p>Facilities should provide the package of differentiated ART delivery for recipients of care not established on treatment (see Section 2.8).</p>	<p>Viral load should be used to monitor the client according to the VL algorithm along with clinical assessment.</p> <p>Enhanced adherence support should be offered to recipients of care with viral load >50 copies/ml.</p> <p>Initiation and maintenance of second-line ART should be provided from all facilities with trained healthcare workers.</p> <p>Facilities should be able to identify (clinical assessment and CD4) advanced HIV disease and screen for TB (LAM and Xpert) and cryptococcal meningitis (CM)(CrAg).</p> <p>All facilities should be able to start TB treatment and where CrAg is positive, refer to the district hospital for lumbar puncture or further assessment.</p> <p>All facilities should be able to maintain fluconazole pre-emptive or maintenance therapy started after a positive serum CrAg or CM treatment.</p>

PROVISION OF INTEGRATED TB/HIV SERVICES (SEE SECTION 2.7.2)

Facilities should provide integrated TB/HIV services as outlined in Section 2.7.2.

All recipients of care with HIV should be screened for TB at every clinical visit and have access to diagnostic services (LAM according to clinical guideline, Xpert MTB/Rif, Culture, CXR).

Recipients of care who are positive for HIV and with no symptoms of TB should be considered for TB preventive therapy according to the national guidelines.

All TB recipients of care should be screened for HIV.

If diagnosed with TB and HIV, TB treatment should be initiated first, followed by ART. Both diseases should be managed within the same facility, collecting drugs for both TB and ART on the same day.



Community cadres, including CATS, key population peer supporters and expert recipients of care, should educate, screen and refer/accompany a person from the community who is presumed to have TB.

PROVISION OF INTEGRATED SRH/MCH AND PMTCT SERVICES (SEE SECTION 2.7.3)

Facilities should provide integrated ANC, delivery, PNC and PMTCT care and offer a choice of differentiated service delivery models to women who become pregnant already on ART and who are in a DSD model for recipients of care established on ART.

Women newly diagnosed with HIV in ANC or PNC should receive integrated PMTCT and ANC, delivery and PNC care. Mothers and infants exposed to HIV should be seen together on the same day.

Women already on ART and in a DSD model should be offered the choice of continuing in their chosen model or receiving multi-month refills at ANC and PNC clinic visits at FCH.

Family planning should be available for all women living with HIV as a one-stop service and integrated into their DSD for HIV treatment model (Section 2.7.3).

Screening for cervical cancer should be available within the district.



Community health workers and other community-based workers should identify recipients of care who need SRH, FCH or PMTCT and refer them to the facility. Facilities should link with the community to strengthen treatment literacy education and to perform defaulter tracking of pregnant and breastfeeding women.

PROVISION OF INTEGRATED NCD/HIV SERVICES (SEE SECTION 2.7.4)

Facilities should provide integrated NCD/HIV services as outlined in Section 2.7.4

All recipients of care on ART should have their blood pressure and cardiovascular risk assessed annually.

All recipients of care on ART should be screened for depression and anxiety annually. Recipients of care with red-flag characteristics (VL >1000 copies/ml, signs of clinical failure, missed appointments) should be screened for symptoms of depression and anxiety.

Recipients of care requiring other chronic medications (for example, for hypertension, diabetes, chronic mental health conditions) should have their follow-up integrated within the recipients of care DSD for HIV treatment model (Section 2.7.4 and 2.7.5).

PHARMACY	
<p>Facilities are responsible for ensuring a continuous supply of OI and ART medicines (see Section 3.1).</p>	<p>Access to:</p> <ul style="list-style-type: none"> Cotrimoxazole TPT Aciclovir Fluconazole Other essential antibiotics, including for treatment of STIs Family planning commodities Adult and paediatric first- and second-line regimens at all facilities Adult and paediatric third-line regimens available after review from tertiary institutions Nevirapine and zidovudine syrup for management of baby exposed to HIV Anti-TB medicines
LABORATORY	
<p>Facilities should make all efforts to have access to the test kits listed. Lack of access to these investigations does not mean ART therapy should be delayed.</p> <p>Facilities should ensure regular stock management to avoid over or under stocking and expiries.</p> <p>Facilities should ensure regular sample transport (see Section 3.2.).</p>	<p>At primary health facility:</p> <ul style="list-style-type: none"> HIV testing kits (rapid and HIVST) DBS kits for NAT Pregnancy tests Syphilis rapid tests Glucometers Urine dipstick Specimen tubes for CD4, FBC and biochemistry DBS kits for viral load testing Point-of-care technologies (for example, CD4, LAM, CrAg, EID NAT) <p>At district level, all of the above plus:</p> <ul style="list-style-type: none"> TB diagnosis (smear or Xpert MTB/Rif) CrAg testing for blood and CSF Creatinine (TDF use) Hepatitis B and C screening VL and EID cartridges for near POC for priority populations <p>At provincial level, all of the above plus:</p> <ul style="list-style-type: none"> Viral load testing EID testing <p>At tertiary level, all of the above plus:</p> <ul style="list-style-type: none"> Genotyping TB culture and drug sensitivity testing
INFRASTRUCTURE AND EQUIPMENT REQUIRED	
<p>Facilities should ensure that there is adequate equipment available to offer the minimum package of services.</p>	<ul style="list-style-type: none"> Running water Well-ventilated room; room with confidentiality for counselling BP machines Stethoscopes Torch and otoscope/auroscope Thermometers Height measuring boards/charts, child health cards for 0-5 and weight-for-age and height-for-age charts for older children, MUAC tapes, weight/salter scales Examination couches

MANAGEMENT OF HIV PREVENTION, CARE AND TREATMENT SERVICES

<p>Each facility should allocate a focal person for HIV prevention care and treatment services.</p>	<p>This person is responsible for ensuring quality provision of HIV prevention, care and treatment services.</p>
<p>Current guidelines and Job Aides, as referenced in this document, should be available.</p>	<p>Essential in every clinic:</p> <ul style="list-style-type: none"> Guidelines for HIV prevention testing and treatment in Zimbabwe Operational and Service Delivery Manual for the Prevention, Care and Treatment of HIV in Zimbabwe Job Aide for the Prevention, Care and Treatment of HIV in Zimbabwe Essential Drug List of Zimbabwe (EDLIZ) TB guidelines
<p>Organization of clinic and community meetings</p>	<p>Facilities should organize regular case discussion meetings to review challenging cases (weekly or monthly depending on caseload). Where there is only one nurse, regular case discussions must be organized with the district mentoring team.</p> <div style="display: flex; align-items: center; margin-top: 10px;">  <p>Facilities should organize a regular health centre committee meeting (at least quarterly) with community leaders and community-based organizations engaged in HIV prevention care and treatment activities.</p> </div> <p>Facilities should organize regular meetings (monthly) between the facility and community cadres.</p>
<p>Data collection, analysis and reporting (see Section 3.3)</p>	<p>All HIV-related activities (testing and counselling, ART, PMTCT, TB/HIV, STI management) must be reported according to the national monitoring and evaluation (M&E) standard reporting system. Each level of the health system will have its individual responsibility for reporting and analysis. Data from community-based activities should be reported under their respective facility.</p> <p>Analysis of facility data should be utilized for continuous quality improvement and for decision making at facility level (see Section 3.4).</p>

1.1.3 Additional responsibilities for district hospitals

In addition to the minimum package of services, the district must also support the primary care clinics that are in its catchment area. The district must ensure that there is:

- A referral system for recipients of care who are sick or have complications to be linked to the hospital for further investigation and management
- Treatment for cryptococcal meningitis as stated in the *Guidelines for HIV Prevention, Testing and Treatment in Zimbabwe*
- Continuation of any treatments initiated at tertiary level, for example, chemotherapy treatment for Kaposi's sarcoma
- Screening and treatment for cervical cancer
- A pharmacist or pharmacy technician who can support the clinics to strengthen supply chain management and respond in a timely manner to any emergency medicine shortages at the clinics
- A laboratory that provides the basic package of investigations as outlined in the minimum package. Maintenance contracts for all machines (haematology, biochemistry and CD4), along with quality assurance mechanisms. The district laboratory must also ensure that adequate quality assurance (internal and external) is in place for tests that are being performed as point of care at the clinic (Section 3.2).
- A radiology department that provides access to X-rays and, ideally, ultrasound
- A district multidisciplinary mentorship team that visits each clinic (see Section 1.2.3). In addition, telephone and other electronic support should be available to the clinic nurses from the district HIV prevention, care and treatment mentors to assist in the management of complicated recipients of care and those experiencing treatment failure.
- As part of district clinical mentorship planning, provision of a clinical attachment system for those nurses identified to be in need of enhancement of clinical skills in HIV prevention, care and treatment

- A district human resources management plan to ensure that adequately trained healthcare workers are available across all clinics
- Regular assessment of staff training needs at district and clinic level to provide the minimum HIV prevention, care and treatment package of services
- Supportive supervision. These visits should be performed by the District Health Executive (DHE) team and should also include co-opted members as per need, such as the laboratory scientist, district health information officer, OI sister in charge, nutritionist and district AIDS coordinator. Each clinic within a district should be visited quarterly. Following a supervision visit, an action plan should be developed for each site.
- District-wide coordination of partners and HIV service delivery organizations
- District-wide coordination of community engagement with HIV activities in line with local health needs
- Consolidation of the monthly reports from all facilities and transmission of data to provincial level
- Act as the referral centre for suspected Kaposi's sarcoma and initiate chemotherapy treatment.
- Provide laboratory tests that are not available at the district and provincial sites, such as resistance testing, TB culture and drug sensitivity testing.
- Provide additional radiological testing that is not available at the district or provincial sites, such as CT and MRI scanning.



1.1.6 The role of the community

It is essential to engage the community in policy development, programming, resource mobilization, implementation and evaluation of services. Across the HIV care and treatment cascade, community engagement provides the possibility of increasing uptake of HIV testing and treatment and enhancing retention and successful adherence to ART.

To achieve this, there must be improved coordination and monitoring of community-based activities and greater linkage with services provided at the facility. Facility managers, community nurses and district coordinators must ensure that they guide their communities in the activities they choose to maximize the health benefits at each step of the cascade.

Developing the capacity of existing community-based workers (village health workers, CATS, key population peer supporters, adult expert recipients of care) using harmonized training materials in line with the national guidelines is the first step. Parallel to this, there is an urgent need to scale up the capacity of community members and volunteers to support community mobilization and treatment literacy activities.

Community-based organizations should also advocate for increased political commitment and financial support for HIV programming and act as a watchdog, using community monitoring systems to report on the quality of services provided and critical issues, such as drug supply shortages or stock-outs.

1.1.4 Additional responsibilities for provincial hospitals

In addition to the minimum package of services, provincial hospitals should:

- Accept referrals from the district facilities to diagnose and treat more complicated clinical cases, including the management of drug-resistant tuberculosis (DRTB).
- Provide laboratory tests that are not available at the district level, such as viral load.
- Provide additional radiological testing that is not available at the district level.
- Consolidate provincial data for reporting to national level.

1.1.5 Additional responsibilities for tertiary hospitals

These hospitals should function as centres of excellence.

In addition to the minimum package of services for their catchment area, they should:

- Accept referrals from district and provincial medical staff to manage complicated cases, including cases of second-line treatment failure.

1.2 Human resources

1.2.1 Background

Decentralization and integration of HIV prevention, care and treatment activities across all levels of the health system, including community-based services, has required a critical review of the roles and responsibilities of healthcare workers. Reviewing the scope of practice of health workers will not only improve access and retention, but should also allow clinicians (doctors and nurses) to spend more time with recipients of care with more complex medical needs.

Evidence from the literature has demonstrated that there is no difference in clinical outcomes, including mortality or losses to follow-up, when nurses initiate or manage people on ART relative to physician-led care. It has also been demonstrated that community cadres can successfully distribute ART refills. Task sharing of laboratory tests will also support further decentralization of services.

Quality of care, however, should be ensured through adequate training, ongoing mentorship, clear indications for referral to higher levels of care, and monitoring and evaluation and quality improvement systems that are utilized for improving recipient of care management.

1.2.2 Roles and responsibilities of health care workers

The precise distribution of tasks will depend on the level of the health system, the number of staff available at a facility and the size of the cohort being served. It is the responsibility of the nurse in charge of the opportunistic infection (OI) clinic to ensure that a member of staff is clearly identified and responsible for fulfilling each task.

Table 7 outlines the scope of practice for different healthcare workers involved in the provision of HIV prevention, care and treatment services. Each site should use this table to review the scope of practice within its facility and establish responsibilities for each step.

District medical officer and district nursing officer

The district medical officer (DMO) along with the district nursing officer (DNO) is responsible for the successful implementation of the minimum package of care for HIV prevention, care and treatment services within their district, including ensuring that facilities have appropriate human

resource capacity to provide the services. In addition, they must ensure that the district hospital and DHE fulfil the additional requirements as outlined in Section 1.1.3.

TB focal nurse and district TB coordinator

The TB focal nurse should oversee the clinical aspects of TB and TB/HIV activities at facility level. The district TB coordinator, in liaison with the TB focal nurse, should oversee all TB and TB/HIV activities within the district. This must include oversight of community-based activities to support TB case finding, retention in care of people with TB and coordination of all TB and TB/HIV data collection. They should also support the implementation of intensified case finding, TB preventive therapy and TB infection control policies within the facilities.

Doctors and clinical officers

A doctor or clinical officer based at district level should:

- Assist in the general running of HIV prevention, care, treatment and support services in collaboration with the focal person/nurse in charge.
- Ensure that a thorough history is taken and examination is performed and that appropriate investigations are ordered for recipients of care seen.
- Assess complicated cases referred to them by the nurses within the OI clinic and from referring clinics.
- Support the OI clinic nurse mentor in decisions to switch to second-line ART.
- Review cases of second-line failure and refer as appropriate.
- Support the management of people with DRTB.
- Determine whether referral to a more specialized level of care is appropriate.

A doctor at district level should also be identified and trained to be part of the district multidisciplinary mentoring team. As well as participating in clinic visits, a doctor should be available by phone for nurses to contact them with clinical queries. This role can be rotated among the doctors within the district.

At provincial and tertiary levels, the doctors should be available to discuss complicated cases and accept referrals as appropriate. If specialist consultants visit provincial or district sites, referring facilities should be aware of the scheduled dates.

Table 7: Health care worker scope of practice for the provision of HIV prevention, care and treatment services

ACTIVITIES	DOCTOR AND CLINICAL OFFICER	RGN	PCN	NURSE AID	GENERAL HAND	PC	DATA CLERK	CLINIC-BASED MICROSCOPIST	COMMUNITY CADRES (including CATS, key population peer supporters and expert recipients of care)
Registration and filling of appointment diaries		Yes but should delegate	Yes but should delegate	X	X	X	X		X
Performing vital signs		X	X	X					
HIV testing and counselling	X	X	X	X*		X			
HIVST distribution	X	X	X	X		X		X	X
DBS for DNA PCR testing or VL	X	X	X	X		X		X	
PrEP initiation and follow-up	X	X	X						Peer supporters can distribute PrEP medicines during follow-up but not at initiation.
Management of complicated cases (such as CCM, second-line failure)	X								
Performing POC tests (CD4, LAM, CrAg, EID NAT)	X	X	X	X		X		X	
ART initiation and follow up for adults and children	X	X	X						
TB initiation of smear or Xpert positive cases for adults and children	X	X	X						
TB initiation for adults requiring CXR interpretation and children where no sputum is available	X								
Distribution of refills		X	X	X		X			X
Management of first -line treatment failure	X	X**	X**						
ART preparation and adherence counselling for adults, children and pregnant women, including treatment failure	X	X	X	X		X			X
Defaulter tracking		X	X	X		X			X
Data entry (for area of service)		X	X	X		X	X		X
Phlebotomy	X	X	X						

* with adequate training

** with discussion with nurse mentor or doctor

Nurse in charge of a facility or opportunistic infection clinic

In addition to the clinical tasks involved in the provision of HIV prevention, care, treatment and support, the nurse in charge of the facility should ensure that:

- The minimum package of HIV prevention, care, treatment and support services (Table 7) is available within their facility and staff are allocated their daily duties to provide these services.
- They have the necessary skills to manage and refer complicated cases.
- Staff within their facility are adequately trained.
- Pharmacy and laboratory commodities are ordered timeously and stored and utilized correctly.
- Accurate and timely monthly data is submitted to the district.
- Clinic team meetings are organized to discuss challenging cases, including treatment failure, and to give feedback on analysed data to support quality improvement activities.
- Liaise with the community nurse, who will organize meetings with community leaders and CBOs to facilitate linkage between clinic- and community-based activities.
- Samples are taken, stored correctly and prepared for sample transport.
- Laboratory results are received, recorded and acted upon accordingly.

Clinic nurse

A clinic nurse should:

- Provide all clinical services required to implement the minimum package of care for children, adolescents and adults (including pregnant and breastfeeding women).
- Initiate and follow up recipients of care on PrEP.
- Initiate and follow up children, adolescents and adults (including pregnant and breastfeeding women) on ART, including provision of counselling if required.
- Initiate and follow up children, adolescents and adults (including pregnant and breastfeeding women) with a positive TB LAM, sputum smear or Xpert MTB/Rif result on TB medication.
- Initiate and follow up relevant integrated medications (TPT, family planning, diabetes, hypertension, mental health).
- Ensure that clear documentation of the consultation is made in the notebook held by the recipient of care and the clinic-held recipient of care OI/ART care booklet.
- Ensure that all baseline and follow-up laboratory tests are performed according to the clinical guidelines.
- Ensure that medicines are prescribed and dispensed accurately.

- Support the provision of refill services (Section 2.6).
- Ensure accurate and timely documentation of all activities in the designated registers or electronic systems according to the activity carried out (HTC, ART care).
- Assist the nurse in charge with the compilation of accurate and timely monthly reports.

Primary counsellor

The primary counsellor is responsible for providing:

- HTS for children, adolescents and adults (including pregnant and breastfeeding women), including preparation of DBS specimens for EID NAT testing and VL
- HIV education, ART education and ART initiation counselling for children, adolescents and adults (including pregnant and breastfeeding women)
- Follow-up adherence counselling for children, adolescents and adults (including pregnant and breastfeeding women)
- Enhanced adherence counselling for children, adolescents and adults (including pregnant and breastfeeding women) who are failing their treatment
- TB and DRTB adherence counselling
- Perform assigned point-of-care tests, such as CD4, TB LAM, CrAg and EID NAT.

For all the above tasks, the counsellor must document their findings in the notebook held by the recipient of care and the notes section of the recipient of care OI/ART care booklet.

For HTS activities, the primary counsellor must also complete the HTS register and, if instructed by the nurse in charge, compile the monthly HTS report.

According to the setting, the primary counsellor could also be assigned tasks, such as registration of recipients of care, updating of the appointment diary, initiation of the defaulter tracking process and acting as focal person for the formation and support of healthcare worker-managed clubs and CARGs (Section 2.6). It remains the responsibility of the nurse in charge to clearly allocate duties and ensure that they are carried out.

Nurse aid

The nurse aid should assist the clinic nurses in the provision of the minimum package of HIV prevention, care, treatment and support services. Depending on the setting, some tasks could be assigned to the nurse aid; these include checking vital signs, registration of recipients of care, ensuring that the diary is accurately updated, and ensuring that defaulter tracking is implemented. Nurse aids could be considered as an additional cadre to perform HTS, other POC tests or facilitate some ART refill strategies after receiving prerequisite training. It remains the responsibility of the nurse in charge to clearly allocate duties and ensure that they are carried out.

Data clerk

The data clerk is part of the medical team at the facility. They are responsible for ensuring that data is accurately entered from the client care and treatment booklet into the paper-based or electronic system on a daily basis. They should also support analysis of facility-based data, provide feedback to healthcare workers and provide the automatic appointment list on a weekly basis, monthly reports and other reports as needed.

Depending on the setting, the data clerk could be assigned certain tasks, such as registration of recipients of care, updating of the appointment diary, and initiation of the defaulter tracing process. It remains the responsibility of the nurse in charge to clearly allocate duties and ensure that they are carried out.

Environmental health technician (EHT)

EHTs perform a wide range of activities. Regarding HIV prevention, care, treatment and support activities, EHTs should:

- Support defaulter tracing under the guidance of the clinic nurse in charge.
- Where appropriate, support weekly sample transport under the guidance of a district sample transport strategy.

Health promotion officer

The health promotion officer is responsible for activities to support community mobilization and advocacy and health promotion messages related to the activities described within the minimum package of HIV prevention, care, treatment and support.

Pharmacist and pharmacy technician

The district-level and provincial-level pharmacist or pharmacy technician must ensure that their facility and the clinics they are supporting have an uninterrupted supply of quality medicines (according to the Zimbabwean pharmacy standard operating procedures) and ensure that emergency orders are supplied (Section 3.1). When dispensing OI and ARV medications, they should also advise on treatment literacy. Any serious adverse events should be reported by the clinicians and recorded appropriately.

Pharmacy staff should support, in collaboration with the nurse in charge, the provision of differentiated ART delivery, which for certain models, may include pre-packing of drugs according to the SOPs outlined in Section 2.6.

In addition to ensuring that activities outlined in Section 3.1 are carried out, the pharmacist or pharmacy technician should perform regular (quarterly) supportive supervision visits to all clinics. These visits should be combined with existing visits for mentorship and supportive supervision by the DHE team to avoid the need for additional transport arrangements.

Laboratory scientist and technician

The district and provincial level laboratory scientist or technician must ensure that their facility and the clinics they are supporting have access to the minimum package of diagnostic and monitoring tests required for the provision of HIV prevention, care, treatment and support services as outlined in Section 1.1.2. They must ensure timely ordering of supplies and have a system in place to ensure access to investigations if a machine breakdown occurs. Adequate internal and external quality control must be ensured for all tests, including rapid HIV testing and other POC tests being performed at clinic level. In addition to ensuring that activities outlined in Section 3.2 are carried out, the laboratory scientist or technician should perform regular (quarterly) supportive supervision visits to all clinics. These visits should be combined with existing visits for mentorship and supportive supervision by the DHE team to avoid the need for additional transport arrangements.

Village health workers (VHWs), community adolescent treatment supporters (CATS), key population peer supporters and expert recipients of care

Village health workers, CATS, key population peer supporters and expert recipients of care should:

- Conduct community mobilization to increase uptake of HIV testing and counselling, prevention and treatment.
- Act as a link between out-of-facility activities and the facility to support linkage to prevention and treatment services.
- Provide the “intensive” additional follow-up where distance is a major challenge for recipients of care (2.5.1 and Table 22) with advanced HIV disease (AHD) and for those from priority populations (adolescents, pregnant and breastfeeding women, key populations and recipients of care with significant psychosocial barriers).
- Provide community-based treatment literacy to support adherence and retention, including supporting recipients of care with high viral load.
- Link with the facility to provide defaulter tracing for recipients of care, utilizing the MoHCC referral form to support effective communication.
- Facilitate the formation and running of out-of-facility ART delivery models where implemented.
- Ensure that monitoring and evaluation of community-based activities is linked to the respective facility.

1.2.3 Capacity building

To provide the minimum package of HIV prevention, care, treatment and support services, the available human resources must be adequately trained. District health executives should ensure that a **regular assessment of training needs** is carried out and that there is a functioning

district clinical mentorship team. Organization of clinical attachments to the district or centre of excellence should be regularly scheduled to support nurses needing clinical skills enhancement in HIV prevention, care, treatment and support. Rotation of staff must be planned, considering their skills and investment in the staff through trainings, clinical attachments and mentorship, with the aim of ensuring that the appropriately trained and skilled staff members are in the right department at the right time.

In addition to classroom-based training and the blended HIV integrated training, a national clinical mentorship programme in Zimbabwe was established in 2007. The goal of the programme is to scale up high-quality comprehensive HIV prevention, care and treatment services supporting decentralization, building capacity in healthcare workers and motivating them with support. In addition to workshop-based trainings provided through the MoHCC, continuous capacity building and professional development are encouraged through the district mentorship programme. The programme utilizes blended learning approaches, e-consultations and teleconsultations within the MoHCC structures.

Mentorship entails **site visits to provide face-to-face support to the mentees** and also **telephone and other electronic support** for discussion of difficult cases. The provincial and district management teams must plan for clinical mentorship based on the needs identified through data analysis, supportive supervision and other programme review platforms. Based on this analysis, they should prioritize sites, cadres, focus areas and frequency for mentorship. Initially, sites should be mentored more frequently, and then less frequently as mentoring objectives are met according to established monitoring and evaluation tools. The mentorship team should support all human resources within the facility who are involved with providing HIV prevention care and treatment services. In particular, the primary counsellor should receive ongoing mentorship to provide counselling activities utilizing the correct tools as developed in this manual and the Job Aide.

The content of the mentorship should be guided by the content of the clinical *Guidelines for Antiretroviral Therapy for the Prevention and Treatment of HIV in Zimbabwe*, the *Operational and Service Delivery Manual* and the accompanying Job Aide. In addition to clinical skills, the scope of the mentorship programme should include knowledge of and implementation of operational strategies across the cascade of care. These include implementation of appointment and defaulter tracing systems, strategies for provision of differentiated testing, ART initiation and ART delivery for recipients of care both established and not established on ART. The district mentorship team should be engaged in the decision-making process to determine which strategies are chosen in a district and lead the introduction of differentiated service delivery as outlined in Chapter 2. Ongoing monitoring and evaluation of the mentorship

programme at district level should be carried out to determine impact and effectiveness.

Each district should select appropriate mentors. Core competencies of mentors are:

A. Expertise in HIV, STI and TB care

- a) In-depth knowledge of current national guidelines on HIV, STI and TB prevention, care, treatment and support services
- b) Familiarity with other related guidelines
- c) Continuous updating of knowledge, especially on comprehensive HIV, STI and TB care
- d) High-quality clinical assessment of recipients of care (history and physical examination) and efficient documentation in the standard documents and M&E tools.

B. Knowledge of the Zimbabwe health care delivery system

- a) Knowledge of and experience in the Zimbabwe healthcare delivery system is critical as the mentor is expected to assist mentees in addressing facility challenges and system issues.

C. Interpersonal process skills

- a) Excellent communication skills
- b) Giving non-judgemental and empathetic feedback
- c) Self-awareness (awareness of one's own qualities and limitations)

D. Mentoring skills

- a) Communication with the mentee
 - Demonstrating technical skills and knowledge in interaction with the mentee
 - Ensuring the ongoing development of the mentee
 - Disseminating clinical practice and information updates.
- b) Knowledge of ICT to facilitate off-site mentoring and blended learning initiatives.

Mentors must receive mentorship training conducted in line with the standard national clinical mentoring curriculum and training manuals. The training focuses on communication skills, adult educational principles, the national guidelines, protocols and tools relevant to practising as an HIV, STI and TB clinical mentor, including the *Operational and Service Delivery Manual*, the health delivery system, the mentoring programme itself, and the details of the mentoring approaches. The mentor training involves an assessment of mentoring competencies, and practising mentors undergo an appraisal and accreditation process yearly to ensure competency, assure quality and encourage continuous medical education and professional development.

Selection of appropriate and competent mentors is critical to the success of the mentorship programme. Mentors

are selected to be part of a **multi-disciplinary team** that collectively has the expertise to address programme needs and gaps identified in the provision of HIV, STIs and TB services and related health delivery system issues. Mentoring multi-disciplinary teams are made up of, but are not limited to, a medical doctor, nurse, pharmacist/pharmacy technician, primary counsellor, laboratory scientist/technician and monitoring and evaluation officer. The respective MoHCC leadership at the different levels (DHE, PHE, City Health

Directorate and hospital executive) is responsible for selecting appropriate cadres to be trained and practice as mentors.

Mentorship must be an ongoing process. The development of a trusting relationship between the district mentorship team and the health care workers providing services in the decentralised sites should strengthen the quality of service provision and motivate staff in their daily tasks.

1.2.4 Key messages and reference materials

- Providing the HIV prevention, care, treatment and support minimum package requires teamwork.
- With a growing cohort of recipients of care, “who does what” will need ongoing evaluation.
- All doctors, clinical officers, registered nurses and primary care nurses can initiate ART and follow up children, adolescents and adults (including pregnant and breastfeeding women).
- Primary counsellors and community cadres, including VHWs, CATS and key population peer supporters, should be actively involved in prevention, treatment literacy activities and defaulter tracking.
- Clinic and district managers should be clear about who is responsible for each task within their facility.
- All health workers should rotate through departments or activities so they become polyvalent, but rotation of staff must be structured to ensure that adequately trained staff members are available at any point to provide the minimum package of HIV prevention, care, treatment and support.
- Ongoing capacity building is essential. All DHEs should undertake regular reviews of training needs.
- All DHEs, in collaboration with the national mentorship programme, should plan for implementation and ownership of a multidisciplinary district mentorship programme for on-site and off-site mentoring to facility staff providing HIV prevention care, treatment and support services, including counselling and monitoring and evaluation.
- Goals of mentorship should be agreed between the mentor and mentee at the start and must include both clinical and service delivery components.
- Mentorship should cover clinical and operational and service delivery aspects of care.
- Mentorship should include the whole clinic team engaged in HIV care, including the primary counsellors.
- Mentorship is an ongoing process, which should also be linked with the goals of quality improvement (Section 3.4).

Reference materials

Guidelines for Clinical Mentoring of Comprehensive HIV Care and Treatment Services in Zimbabwe.

1.3 Decentralisation of HIV prevention, care and treatment services

This chapter will consider the decentralization of HIV prevention care and treatment services to out-of-facility settings and the role of telehealth.

1.3.1 Background

Zimbabwe has made considerable progress towards the 95-95-95 targets of 95% of people living with HIV knowing their status, 95% of those who know their status being on ART and 95% of those on ART being virally suppressed. HIV testing and treatment has been successfully decentralized to all hospitals and primary care facilities. PrEP, however, must still be more broadly decentralized to primary care and be made available in multiple entry points, such as family planning, STI and ANC and PNC settings.

The next phase of differentiated service delivery should aim to strengthen HIV testing, prevention and DSD for HIV treatment models that further reduce the burden on recipients of care by taking care closer to them.

1.3.2 Zimbabwe community health strategy

Recognizing the goal of universal health coverage and the challenges to achieve this, Zimbabwe has set out a National Health Strategy 2020-2025. Community health provides basic health services to rural and urban communities by preventing and treating disease, creating awareness and transferring knowledge to people. Empowered communities should take an active role in health-related issues.

A core part of this strategic direction is to strengthen the role and training of village health workers (VHWs) and to establish fixed health posts. These health posts have a direct link to the primary care facilities (hubs), and will provide an opportunity to further decentralize HIV testing, prevention and treatment services over the coming years. Training of VHWs and supporting supply chain mechanisms to these sites will be essential for the success of this strategy.

Considerations when considering further decentralization to out-of-facility settings include:

Human resources: Nurses: Is there capacity for nurses to extend services beyond their own facility? How many nurses have received the HIV integrated training and are able to provide the minimum package of HIV prevention, care and treatment at an out-of-facility site?

Human resources: Counsellors: Is there capacity for primary counsellors to extend their services beyond their own facility? How many primary counsellors are able to provide HIV testing, prevention, ART preparation, follow-up and enhanced adherence counselling?

Human resources: VHWs: Have VHWs had adequate training and remuneration to ensure the range and quality of services? Inclusion of core HIV prevention and treatment activities should be a standard part of their role.

Human resources: Peers: Can people living with HIV (CATS, key population peer supporters, expert recipients of care) support delivery of out-of-facility HIV services across the prevention and treatment cascade?

Pharmacy: Is there capacity to ensure that the supply chain reaches the last mile of any out-of-facility site?

Laboratory: Is there capacity to provide the minimum package of laboratory tests at out-of-facility sites and/or support integrated sample transport?

Physical space: Is there adequate space to ensure that recipients of care, where necessary, are consulted, counselled and examined confidentially? Is there secure and adequate space for storage of any medicines within the MRCZ regulations?

Monitoring and evaluation: Are all tools adapted to support M&E and linkage of the out-of-facility sites to the hub ART site?

Mentorship: Does the district mentorship team have resources to support out-of-facility sites and ensure that quality of care is maintained?

Supportive supervision: Are out-of-facility sites incorporated into the district supportive supervision?

1.3.3 Opportunities for out-of-facility provision of HIV services

Each chapter of the OSDM will describe the opportunities for out-of-facility delivery of services. Table 8 summarizes these opportunities.

Table 8: Opportunities for out-of-facility services across the prevention and treatment cascade

TESTING	PREVENTION	INITIATION	ESTABLISHED ON ART	NOT ESTABLISHED ON ART
Outreach testing Testing at out-of-facility fixed sites HIVST self- testing	VMMC mobile services Individual out-of-facility PrEP	Out-of-facility initiation Where same-day initiation is not possible, ART initiation counselling performed in the community or through telehealth	Individual models not based at a facility Group models led by recipients of care where ART delivery is out of the facility Community-based ART delivery led by community cadres (VHWs, CATs, key population peer supporters, expert recipients of care)	Community-based or telehealth enhanced adherence counselling Community intensive follow-up of clients with AHD or post-IPD discharge
Page 34-36	Page 40	Page 51	Page 78 and 84	Page 64 and 101

1.3.4 Role of telehealth

The COVID-19 pandemic has accelerated Zimbabwe’s experience of using telehealth to provide care. Telehealth offers further opportunities to reduce the burden on the recipient of care, minimizing transport costs and time spent at the facility.

Opportunities for telehealth



A recipient of care may attend for annual viral load collection or viral load may be taken in the community. If this is not a point-of-care test, instead of attending again for the result, it can be sent by SMS directly to the recipient of care, as well as to the facility.

A client with an active OI, a client discharged from IPD or with advanced HIV disease with a CD4 <200 cells/mm³ requires more intense initial follow-up after discharge or ART initiation. Where clinically appropriate, this follow-up could be carried out remotely in the first three months after discharge.



Follow up for TPT may be carried out using telehealth

After the first face-to-face enhanced adherence counselling session, the second session may be offered through telehealth if access to the clinic is a major challenge.

1.3.5 Key messages and reference materials

- HIV testing and treatment has been successfully decentralized to primary care.
- Zimbabwe is developing a community health strategy that includes VHWs trained in elements of HIV care and the establishment of health posts.
- There are a range of opportunities to provide out-of-facility differentiated service delivery for testing, prevention and treatment.
- Telehealth can facilitate further decentralization of care.

Reference materials

Zimbabwe National Health Strategy 2021-2025

CHAPTER 2

Differentiated Service Delivery

2.1 Introduction to differentiated service delivery

Differentiated service delivery (DSD) for HIV is a **person-centred approach** that simplifies and adapts HIV services across the cascade to reflect the preferences and expectations of various groups of people living with and vulnerable to HIV while **reducing unnecessary burdens** on the health system. By providing DSD, the health system can refocus resources on those most in need.

DSD for HIV has already supported the progression towards the 95-95-95 targets while improving the quality of services for recipients of care (RoCs) and responding to the increasing workload faced by healthcare workers.

DSD models can be described using:

1. The three elements (Fig 2)
 - Clinical characteristics
 - Specific population
 - Context
2. The four building blocks (Fig 3)
 - When (frequency and timing of clinical and refill visits)
 - Where (location of services, facility or out of facility)
 - Who (cadre of healthcare worker providing the service)
 - What (the package of services provided)

Figure 2: The three elements of differentiated service delivery

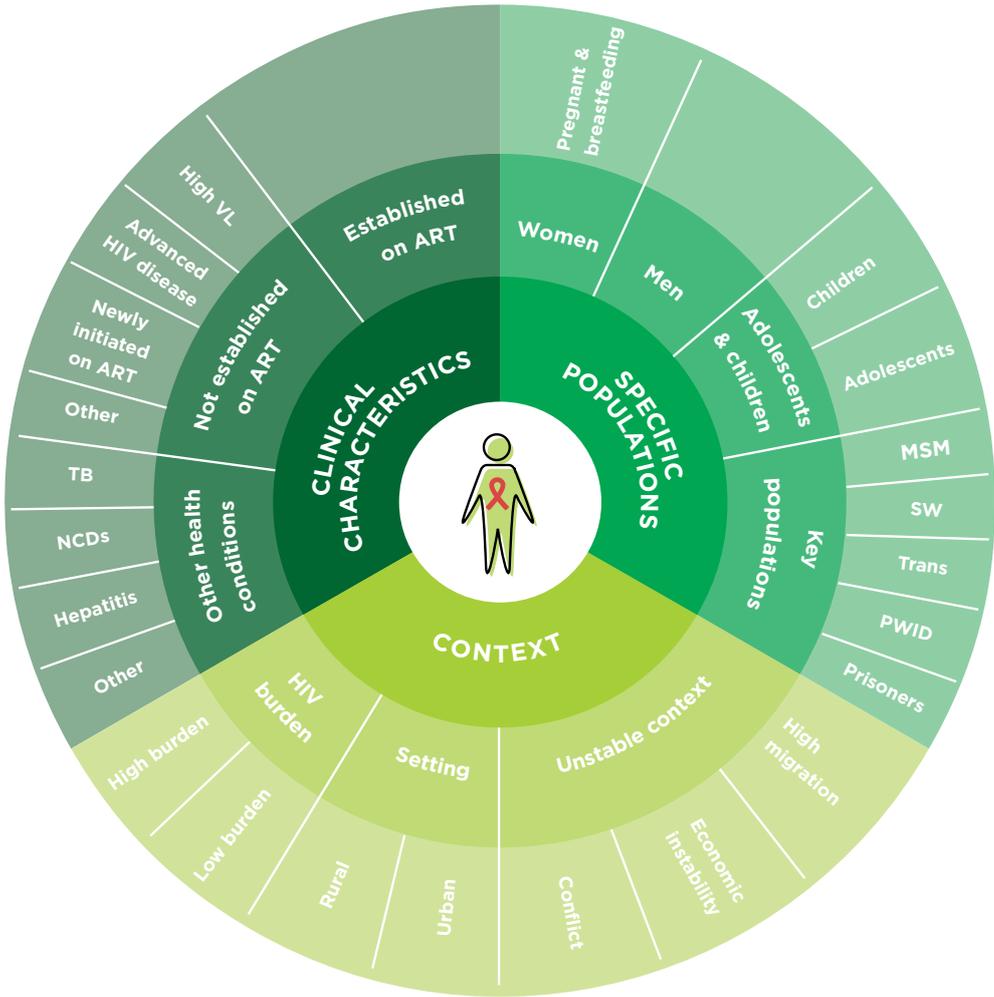
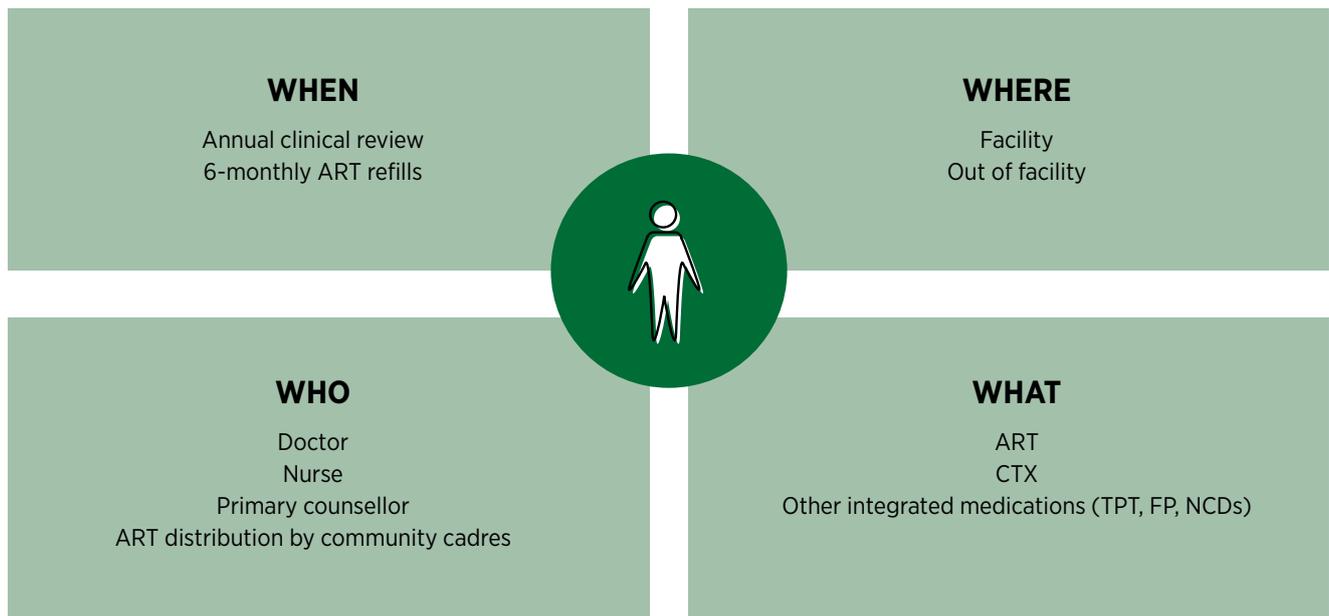


Figure 3: The building blocks of differentiated service delivery: ART delivery example



When building a service delivery model, the three elements are first used to categorize the specific needs of the RoC. Based on these needs, a model of testing, prevention, initiation or ART delivery can be built using the four building blocks.

At each step of the HIV prevention, care and treatment cascade, DSD models should be designed and implemented as a direct response to specific challenges or barriers identified for RoCs and healthcare workers.

These basic principles of differentiated service delivery have been implemented in Zimbabwe since 2014. Chapter 2 will outline how the elements and building blocks are applied to the delivery of testing, prevention, initiation and ART services.

As DSD continues to be scaled up, it will be essential to address two emerging concepts – re-engagement and integration – in the next phase of implementation.



Re-engagement

After providing HIV testing and treatment for over two decades, there is growing recognition that at each step of the HIV cascade, RoCs will be disengaging and re-

engaging. Re-engagement may be at HIV testing entry points or at ART delivery sites. Fig 4 demonstrates the cyclical nature

of our current HIV care and treatment cascade. The design of our DSD models must also recognize this phenomenon, and counselling skills must actively identify those re-testing and re-engaging in care.

Section 2.4.8 outlines how to differentiate care for RoCs re-engaging in care.



Integration

The goal of DSD is to provide person-centred care. To do this, our DSD models must look to integrate each RoC's other health needs.

Screening for other chronic diseases (for example, hypertension and diabetes) and TB and assessing contraceptive needs should be integrated into HTS services and routinely offered at ART initiation and ongoing clinical visits. At a minimum, TPT, FP, hypertension and diabetes medication should be integrated into the DSD for HIV treatment models (See Section 2.7).

This move toward providing integrated person-centred HIV service delivery models is illustrated in Figure 5.

Figure 4: Re-engagement cycle across the HIV care and treatment cascade

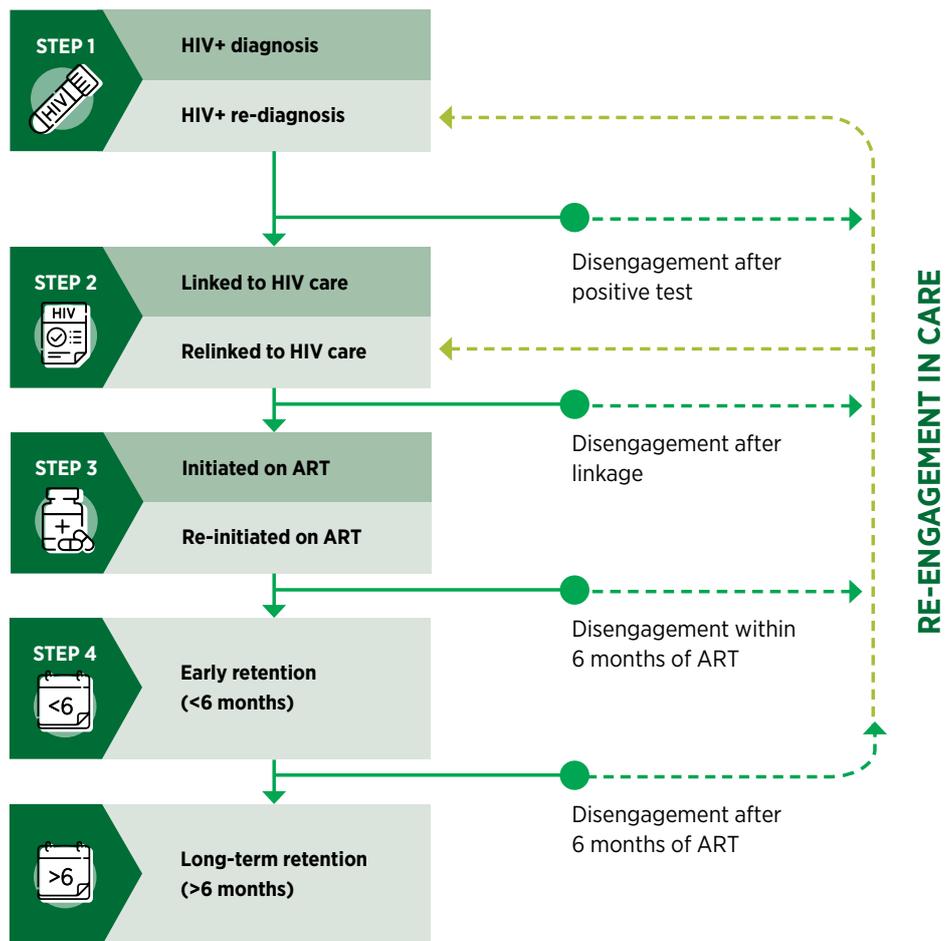
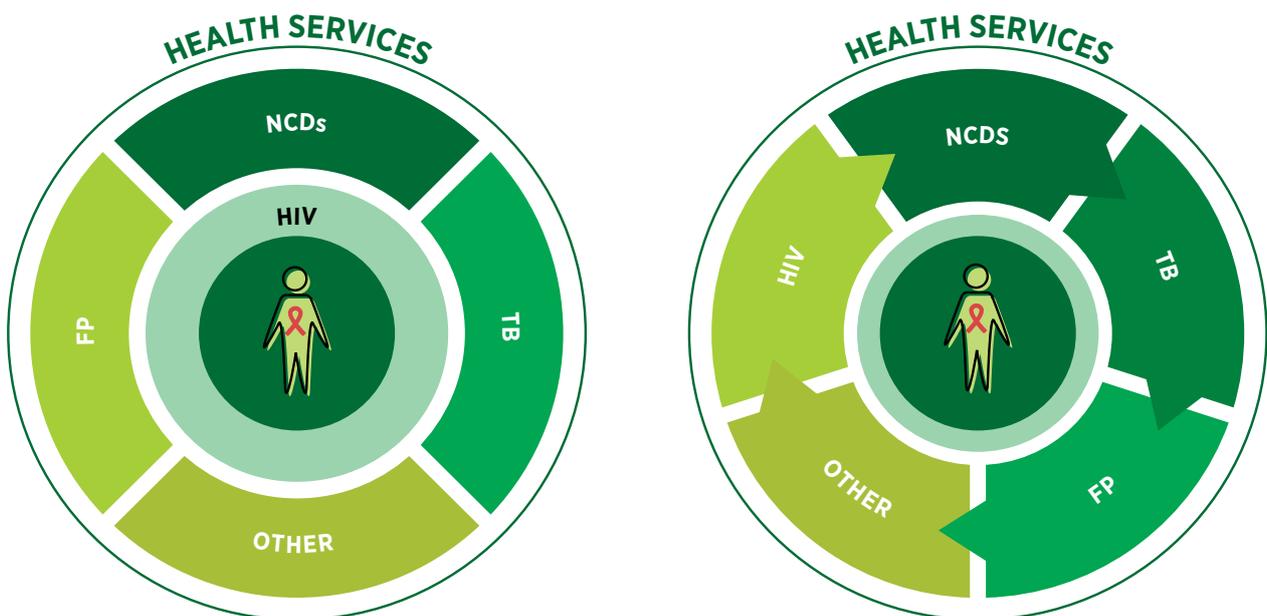


Figure 5: Providing person-centred differentiated service delivery through integration



Phase 1: Differentiated service delivery for HIV

Phase 2: Integrated person-centred differentiated service delivery

2.2 Differentiated HIV testing services and linkage to treatment and prevention

2.2.1 Modalities of HIV testing

Provider-initiated testing & counselling (PITC)

PITC services using the screening tools (Section 2.2.2) should be provided to all adults, adolescents and children attending all health facilities. In addition to rapid HIV testing, this must include access to nucleic acid testing (NAT) for infants younger than 18 months. HTS should be provided routinely at the following entry points:

- Outpatient clinics
- STI clinics
- TB clinics
- FCH (ANC, PNC, family planning, adolescent SRH, EPI services)
- Nutrition
- Mental health
- Male circumcision (optional)
- Medical, surgical and paediatric inpatient wards

Organization of PITC in clinic settings

- Pre-test information on HIV could be given to a group where possible.
- The healthcare worker responsible for health education should give group pre-test information first thing in the morning and then repeat it mid-morning for those arriving later.
- Those opting to test should proceed directly to the HTS provider who can perform the individual screening for eligibility for testing.
- HTS should ideally be performed before the clinical consultation for which the RoC has attended the facility.

HIV Self-testing (HIVST)

HIVST is a process where an individual who wants to know their HIV status collects their own specimen (oral fluid or blood), performs the test, and interprets results in private or with someone they trust. It is used by people who are 16 years and older.

HIVST may be:

- Facility-based (targeted distribution may be done at the facility and the test used either within the facility or at the RoC's chosen location)

- Community-based (targeted distribution during mobile outreach or door-to-door and in identified hotspots)

Distribution and use of HIVST may be through:

- Primary distribution: The individual receiving the HIVST kit is the one who will use it.
- Secondary distribution: An individual other than the one who will use the HIVST kit obtains it on behalf of their partner or relative. This is recommended especially for pregnant and breastfeeding women and index cases. They are tested at the facility and then take HIVST kits to distribute to their partners at home.
- Non-assisted test: The RoC uses the HIVST themselves.
- Assisted test: The RoC, after receiving the basic information on HIV, the key messages for HIVST, instructions on how to perform the test, result interpretation and given an opportunity to watch the instruction video, still requests the service provider for assistance in the testing process (either in collecting the specimen or interpreting the result).

Key messages for HIVST providers:

- HIVST is a screening test. A RoC with a reactive result should be tested by a trained health worker using the current HIV testing algorithm to confirm the diagnosis.
- HIVST should not be used by a RoC with HIV on ART as this may give a false negative result.
- The RoC should wait for 30 minutes after eating or brushing their teeth before they perform the test.
- Demonstrate how the kit is used (and show video if available).
- Explain how results are interpreted and what to do with each result.
- RoCs are encouraged to share their results, especially if they have a reactive result, without coercion.
- Provide information for those testing negative to assess their risk of HIV transmission and information on how to link to prevention services.
- Provide information for those who get a reactive result to attend a facility-based testing service for confirmatory testing.

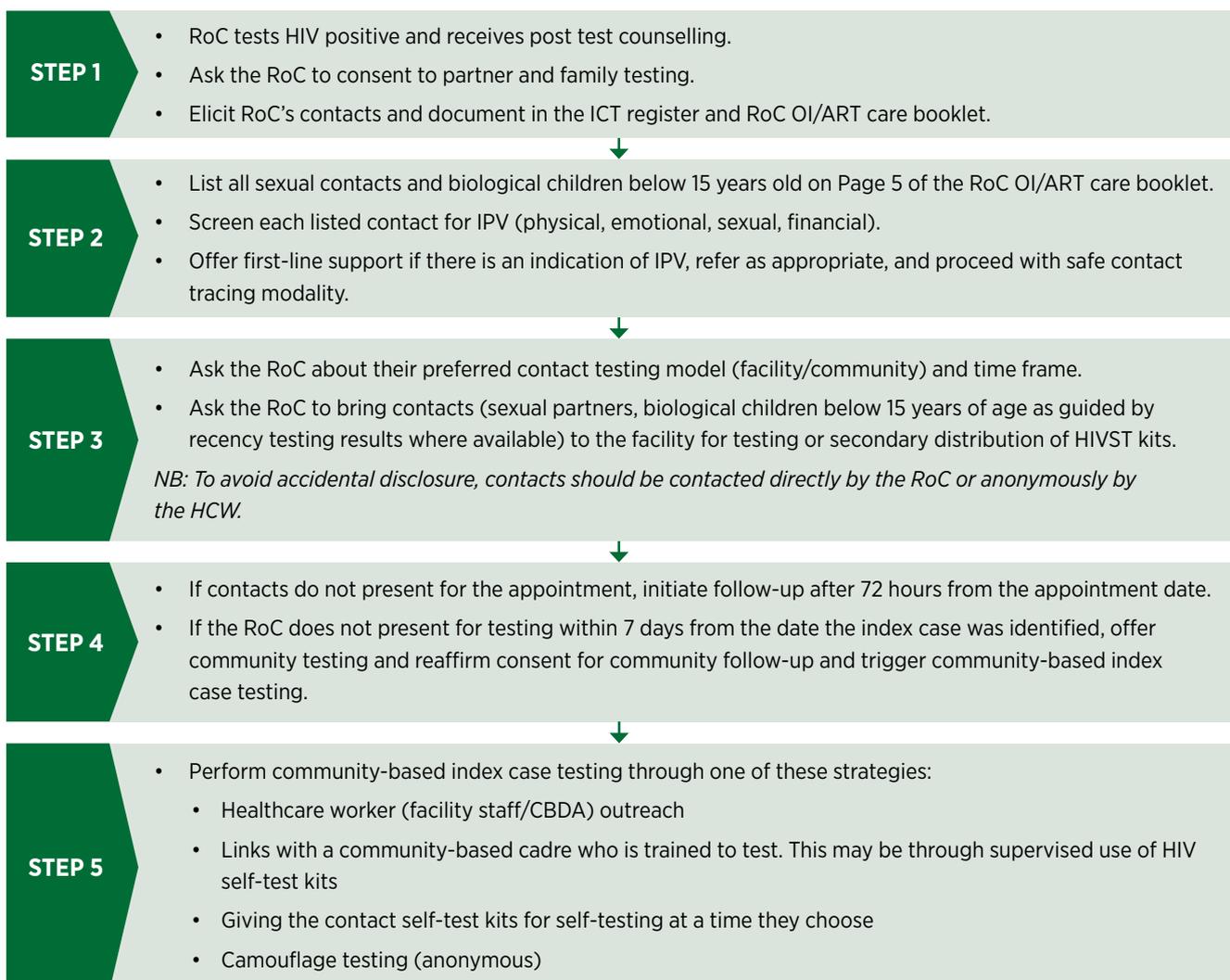
Index case testing

- Index case testing provides a high yield strategy for testing and ensures that a family approach is taken to identify new cases and provide ongoing services.

- Index cases include people who are newly diagnosed with HIV, virally unsuppressed and ART defaulters.
- Contacts include:
 - Sexual partners
 - Biological children aged below 15 years whose mothers are living with HIV
 - If a child aged below 15 years tests positive for HIV, the contacts are biological parents and siblings (NB: if the biological mother is available, the mother's status should be ascertained before testing siblings)
- Index case testing (also known as provider-assisted referral) should be offered to people with HIV as part of any package of testing and care.
- Partner testing can be delivered in many ways, including RoC referral and provider-assisted disclosure.
- If feasible and acceptable to the RoC, index testing (provider-assisted) should be a priority as it is more effective and provides the opportunity to offer comprehensive prevention interventions to partners who test negative.
- Social network-based approaches can be offered for HIV testing for key populations.
- In all settings, biological children below the age of 15 years with a parent living with HIV (or who may have died with HIV) should be routinely offered HIV testing services.
- During the post-test counselling session for RoCs living with HIV, with the client's consent, contacts are elicited and documented in the HIV contact tracing and testing register.
- Index case testing can be carried out using the following approaches:
 - Facility-based: Partners and children of the index case attending the facility for testing.
 - Community-based
 - Trained HCW provides testing with a rapid test at a community location.
 - The index client distributes an HIVST as a screening test.
 - Community cadres, including CATS or key population peer supporters with the permission of the RoC, distribute an HIVST to the contacts of the index case.

Figure 6 outlines the SOP for providing index case testing.

Figure 6: SOP for providing index case testing



Couple or partner HTS

Couple or partner testing is often emphasized during testing at ANC or PNC, but it is an approach that should be offered to all those presenting for HTS.

Community and male mobilization strategies to encourage couples or partners to test for HIV is an essential component for community networks to consider.

Testing couples or partners together may have several advantages:

- If the couples or partners have chosen to test together, mutual disclosure is immediate.
- If serodiscordant, the RoC with HIV can be linked to treatment at the same time that the negative RoC is linked to prevention.

2.2.2 Screening tools for HTS

To better utilize testing resources and to increase testing yield, screening tools have been developed and these should be utilized to prioritize who receives an HIV test.

Adult HTS screening tool

- Fig 7 the adult screening tool for HIV testing should be used at the facility and community for RoCs aged 16 years and older before being offered an HIV test.
- The purpose of this SOP is to standardize and guide the implementation of the screening tool across all levels, models and approaches for HTS by all healthcare providers.

NB: This screening tool should not be administered to pregnant (antenatal) and lactating (postnatal) RoCs on PrEP, PEP or TB, nor to RoCs with a confirmed STI.

Justification for using the HTS screening tool

The adult screening tool is designed to assist the tester to decide which RoCs need HIV testing according to their risk profiles. This is consistent with the thrust to target HIV testing services and enhance the positivity yield.

Who can administer the screening tool

The screening tool can be used by any health service provider involved in HIV testing provision, including primary counsellors, nurses, doctors and expert RoCs (adolescents and adults).

Interview guide

- The interview and the data collected are confidential and should be used only for the intended purpose.
- The RoC is screened to ensure that their last test was **at least three months before and respond “yes” to any of the remaining four questions.** After this and giving consent, they should be offered HIV testing.
- RoCs who are **screened out** should not be tested, but may return for a fresh screening session if at risk at least three months from the previous test and not the previous screening date.
- Clients should be **screened at least once in three months.** The most frequent testing interval is three months, according to the re-testing algorithm.



RoCs who are re-engaging through HTS

Recognizing RoCs who may be re-engaging in care through HTS is very important.

RoCs should be assessed with respect and HCWs must be non-judgemental as to why the RoC has presented for re-testing.

If identified as a RoC who has previously been on ART, follow the re-engagement algorithm outlined in Section 2.4.8.

Figure 7: Adult HTS screening tool

NO	QUESTIONS	RESPONSES
	Province	Write the province code in which your site is located.
	District	Write the district code in which your site is located.
	Facility	Write the code for the facility where you are administering the tool.
	Sequential number	Record in a numeric format the sequential number of the RoC in order starting from 1,2,3 ... etc. until the last RoC in the month (starting from the first day of the month and ending on the last day of the month).
	Today's date	Record date of screening in the following format: dd/mm/yr
	Sex at birth	Regardless of how they identify, ask the RoC what their sex at birth was.
	Age	Ask for the RoC's age in completed years and record it in the provided box.
1	When was the last time you were tested for HIV?	Ask the RoC when last they had an HIV test done. All RoCs who were tested less than three months before are ineligible for testing.
	1a. If previously tested, what was the result?	If the RoC previously tested for HIV, ask them to state the results they obtained.
2	If negative, do you consider yourself to be at risk of HIV?	Document RoC self-perception of risk as categorized: not at all – 0; low – 1; medium – 2; and high – 3. NB: Offer HIV testing for all levels of risk (from low – 1 to high – 3).
	2a. If inconclusive	If the previous HIV test result was inconclusive and it's now 14 days or more, offer HIV testing as per the HTS algorithm.
3	Do you have a sexual partner who tested HIV positive in the past 2 years?	Find out if the RoC had sexual partner/s who tested positive for HIV in the past 2 years. If yes, the RoC is an index case contact and eligible for HIV testing.
4	Have you experienced poor health in the past 3 months?	Ask the RoC if they have been unwell and/or admitted to the hospital in the past 3 months and tick the appropriate box. Ill-health in the past 3 months includes presumptive TB symptoms, such as night sweats, chest pains, productive cough or coughing up blood lasting 2 weeks, loss of appetite, recent diagnosis with TB and unexplained weight loss of >10%. These are highlighted faintly on the tool as a reminder. Do not influence the RoC's perceptions.
5	Have you experienced any symptoms or signs of an STI, such as urethral or vaginal discharge or genital sores?	Ask the RoC if they have had any of the listed symptoms. Include genital itchiness, pain during urination or intercourse, rashes on the genital area, vaginal or urethral discharge, genital or anal sores, blisters or sores in or around the mouth, and lower abdominal pain.

Proceed to offer HIV testing to all RoCs who were last tested three months or more ago (Question 1), in combination with a “yes” answer to any of the subsequent questions (2-5).

Paediatric HTS and TB screening tool

Screening for HIV and TB should be carried out at the same time. Figures 8 and 9 outline the two screening tools.

Wherever HTS is being offered, the healthcare worker should understand the following important considerations regarding testing children.

Age of informed consent for HTS:

- Any young person who is aged 16 years or above who requests HTS is considered able to give full informed consent.
- The consent of a parent or caregiver is required before performing an HIV test on a child or adolescent who is below 16 years of age
- A child or adolescent below the age of 16 who is a mature minor may provide informed consent for HTS. A mature minor is a child or adolescent who can demonstrate that they are mature enough to make a decision on their own. A counsellor should consider the following factors in determining whether a child or adolescent should be treated as a mature minor:
 - The ability to appreciate the seriousness of HTS and the test result and to give informed consent



Figure 8: HTS screening tool for children and adolescents

HTS SCREENING TOOL FOR CHILDREN AND ADOLESCENTS		
For each child or adolescent (aged 5-15 years) attending the facility, ask the following questions and tick either YES or NO. All children under 5 years of age should be offered an HIV test.		
For children and adolescents aged 5-15 years, ask	YES	NO
1. Has the child ever been admitted to the hospital?		
2. Has the child had a recurring skin problem?		
3. Has one or both of the child's natural parents died?		
4. Has the child experienced poor health in the past 3 months?		
If the answer is YES to any 1 of the above questions, offer an HIV test.		
If the child or adolescent answers YES to any 1 of the above questions:		
1. Obtain consent		
<ul style="list-style-type: none"> If the child or adolescent is above 16 years, ask for consent from the child or adolescent directly. If the child is below 16 years, ask for consent for an HIV test from their parents or caregiver. If the child or adolescent is an emancipated/mature minor (married, pregnant or a parent), ask for consent from the child or adolescent directly. If it is in the best interest of the child to be tested for HIV, seek consent from the person in charge of the health facility. If consent is declined, offer additional pre-test counselling and allow the child or adolescent to proceed to the services for which they attended the facility 		
2. Conduct pre-test counselling with the child or adolescent and parent or caregiver.		
3. Conduct HIV test with child or adolescent.		
4. Determine HIV results		
<ul style="list-style-type: none"> If the child or adolescent tests NEGATIVE, provide post-test counselling and referral to appropriate services. If the child or adolescent tests POSITIVE, provide post-test-counselling, verify the test results, and initiate the process of enrolling the child or adolescent on ART. 		
If the child or adolescent does not answer YES to any of the above questions:		
The child or adolescent proceeds to the services for which they attended the facility.		
If the child or adolescent answers YES to any of the above questions, but opts out of being tested for HIV:		
The child or adolescent has the right to proceed to the services for which they attended the facility.		
It is important to continue offering pre-test counselling and to discuss the matter further with the person in charge of the facility.		

- The physical, emotional and mental development of the minor
- The degree of responsibility the minor has assumed for their own life, such as heading a household or living independently from a parent or caregiver

“Best interest of the child” principle:

A healthcare worker should seek approval from the person in charge of the clinic or hospital in order to provide HTS without consent from a parent or caregiver when it is in the best interest of the child. This includes when:

- A child is ill and diagnosis will facilitate appropriate care and treatment.
- A child is a survivor of sexual abuse.
- A child is sexually active.
- A child is concerned about perinatal transmission.
- A child has been exposed to HIV through vertical or sexual transmission.
- A child expresses concern that, given an HIV-positive result, they will be denied access to care and treatment by a parent or caregiver.



If a parent or caregiver will not or cannot give consent for a child younger than 16 years, the healthcare worker can exercise the “best interest of the child” principle and seek approval from the person in charge of the clinic or hospital to perform the HIV test.



Figure 9: TB screening algorithm for children and adolescents

TB SCREENING ALGORITHM FOR CHILDREN AND ADOLESCENTS		
Ministry of Health and Child Care: National AIDS and TB Programme TB SCREENING ALGORITHM		
For each child or adolescent (aged 0-19 years) attending the facility, ask the following questions and tick either YES or NO.	YES	NO
1. Has the child or adolescent had a cough for 1 week or more and not improved on treatment?		
2. Has the child or adolescent had a persistent fever for more than 2 weeks?		
3. Has the child or adolescent had documented weight loss or failure to gain weight?		
4. Has the child or adolescent experienced fatigue (i.e., being less playful and/or always tired)?		
5. Has the child or adolescent been in contact with someone within or outside of the household with active/confirmed TB or with someone who has a chronic cough?		
If the answer is YES to any 2 of the above questions, they should be investigated for TB.		
If the child or adolescent answers YES to any 2 of the above questions:		
1. Obtain a sample for a TB test and conduct a TB test.		
<ul style="list-style-type: none"> • If the child or adolescent can produce sputum, GeneXpert should be utilized for TB testing depending on availability of the machines. Where GeneXpert is not available, smear microscopy can be done. Following analyses of results, they should be sent back to the clinician at the facility. • If the child or adolescent cannot produce sputum, alternative or additional methods can be utilized. These include stool, nasopharyngeal aspiration, LF-LAM (for children/adolescents living with HIV), gastric aspirates, chest X-rays and TST. 		
2. Determine TB test result.		
<ul style="list-style-type: none"> • If the child or adolescent tests POSITIVE, refer for initiation onto TB treatment. • If the child or adolescent tests NEGATIVE, a clinical assessment should be conducted to determine clinical suspicion of TB. • If there is clinical suspicion, TB treatment may be commenced despite a negative TB test result. 		
If the child or adolescent screens NEGATIVE for TB:		
The child or adolescent continues to the services for which they attended the facility.		

2.2.3 Recommendations for re-testing for HIV

Table 9 outlines the recommendations for re-testing individuals according to their HIV risk and specific population. In this context, re-testing refers to the frequency of HIV testing recommended.

2.2.4 The three components of differentiated HIV testing services

When designing a differentiated HIV testing services model, the building blocks (when, where, who and what) should be considered for three essential components:

- Mobilizing populations for HIV testing
- HIV testing and counselling
- Linkage to treatment and/or prevention

Table 10 outlines how the building blocks may be applied for each of these components.

2.2.5 Differentiated HTS strategies

Three differentiated testing service approaches are endorsed for implementation:

- Facility-based testing (provider and RoC-initiated testing and counselling)
- Community-based testing (this may be at fixed community sites or through outreach testing)
- Index testing (HIV partner services), including provider-assisted referral and social network-based approaches at a facility or in the community

For RoCs aged 16 years and older, the approaches above may be initiated using rapid HIV testing or HIV self-testing.

Table 11 outlines which HTS strategies should be offered across specific populations.



Table 9: Recommendations for re-testing individuals according to their HIV risk and specific population

POPULATION	RECOMMENDATION
General population not at ongoing risk	Offer re-testing at least annually.
Individuals with inconclusive HIV test results	Re-test after 14 days.
Individuals on PEP	Re-test at 3 months and 6 months after the initial test.
Individuals on PrEP	Re-test after every 3 months.
Key populations	Re-testing according to risk assessment (suggestion is for testing every 3 months)
HIV-negative pregnant women and lactating women	Re-test women who previously tested HIV negative in the first trimester of pregnancy and in the third trimester or at delivery. Re-test at 6 weeks postnatal and 6 monthly during the breastfeeding period. Visits to EPI and 6 weeks (DTP) and at 9 months (measles) should be time points where maternal HIV status is reassessed.
Individuals positive for HIV before initiation of ART	Verification testing to verify all people newly and previously diagnosed with HIV before they initiate ART. Verification testing should ideally be conducted by a different service provider with a different specimen. However, if there is only one health worker at the facility, they can take another blood sample an hour apart and re-test.

Table 10: The building blocks of the three components of differentiated HIV testing services

	MOBILIZING	HIV TESTING AND COUNSELLING	LINKING
WHEN	<p>Initiate HTS at strategic points along each RoC’s journey of healthcare at community or facility level.</p> <p>The mobilizer, provider or RoC should be able to determine at what point HTS is most relevant, such as ANC visits.</p>	<p>a. Frequency of HIV testing (see Table X)</p> <p>b. Timing of HIV testing (provide out-of-work hours; adapt for specific populations)</p> <p>c. Verification testing of newly diagnosed RoCs to verify status before linkage to ART</p> <p>d. Determined by recency testing</p>	<p>Same day as test or within 7 days, for both linkage to treatment and prevention</p> <p>Follow-up of untested contacts</p>
WHERE	<p>Demand creation and geographic location are determined by the following:</p> <ul style="list-style-type: none"> Recency and index testing High prevalence of STIs and teenage pregnancies 	<p>HTS clinics, OPD, IPD STI, TB, immunization, malnutrition, ANC and PNC, FP clinics and all services for key populations</p> <p>Out-of-facility sites; youth centres; key population drop-in centres; identified hotspots</p> <p>Mobile outreach testing sites</p> <p>Workplaces</p> <p>Home</p>	<p>Link RoC to preferred ART or PrEP or other HIV prevention services (such as VMMC)</p> <p>Facility or community</p> <p>If tested in community, consider out-of-facility initiation (See section 2.4.3)</p> <p>PrEP should be integrated into priority sites where HTS is offered (e.g., STI clinics, FP, FCH, HTS, VMMC sites; see Section 2.3.2)</p>
WHO	<p>Healthcare workers; primary counsellors; community cadres, including CATS and key population peer supporters</p>	<p>Trained HIV testing service providers: healthcare workers, primary counsellors</p> <p>Community cadres, including CATS, key population peers and index clients can distribute HIV self-test kits.</p> <p>Client performing self-test</p>	<p>The same service provider who provides HIV testing should support linkage</p>
WHAT	<p>Address population-specific HTS knowledge gaps within the communities and facilities that are barriers to testing</p>	<p>HIV testing service package:</p> <ol style="list-style-type: none"> Screening for eligibility, and ensure RoC is not already on ART Pre-test information giving <ol style="list-style-type: none"> NB: Prepare couples for possible seroconcordant negative or positive and serodifferent results before testing Conduct HIV test according to the current national HIV testing algorithm <ol style="list-style-type: none"> Where HIVST is used, ensure private and confidential space and assist where necessary Post-test counselling (NB: Use counselling principles, skills and techniques) <ol style="list-style-type: none"> Deal with RoC’s emotions Risk assessment and risk reduction (demonstration and provision of condoms, Section 2.3.1, and empowerment with negotiation skills where necessary) Link to HIV prevention and treatment services Assess for intimate partner violence (Appendix 1) and refer accordingly Mental health screening (see Section 2.7.5) and referral accordingly For RoCs who are HIV positive <ol style="list-style-type: none"> Re-test for verification of HIV diagnosis Recency testing Index contact testing Secondary distribution of HIVST kits and Information giving 	<p>Service package provided for linkage to prevention services (if eligible) including:</p> <ol style="list-style-type: none"> Targeted prevention information and education PrEP initiation or linkage support package (For example: Offer on-site same-day PrEP initiation, facility-based peer navigation; provide scheduled appointment [if same-day offer not accepted]; follow up after missed scheduled appointment) VMMC linkage support package (For example: Refer to VMMC site; provide scheduled appointment; follow up after missed scheduled appointment) Provision of condoms and lube and demonstration of use <p>Service package provided for linkage to treatment</p> <ol style="list-style-type: none"> Assessment of AHD Clinical and psychosocial readiness Rapid initiation

2.2.6 The building blocks of differentiated HTS by population

The building blocks of DSD can be applied to HTS services and should be adapted according to the populations being offered HTS (Table 12).

The building blocks should be considered for all modalities of HTS strategies.

2.2.7 Integration of screening for other conditions

Integrating screening for other conditions with HTS has been shown to be cost effective, may destigmatize HTS services and could encourage certain populations (men, adolescents and young people) to attend.

An integrated approach should be considered, including:

- TB
- STIs
- Hypertension
- Diabetes
- Nutrition
- SRH and family planning
- Mental health screening
- COVID-19 screening
- Cervical cancer screening for women living with HIV aged 25 and above



Table 11: HTS strategies across specific populations

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-14 YEARS	15-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Facility-based All populations	Model should be offered	Model should be offered	Model should be offered	Model should be offered	Model should be offered	Model should be offered			
Community-based All populations but, in particular, focus resources on adolescents, young adults, key populations and men	Model not a priority for this population	Model should be offered	Model should be offered	Model not a priority for this population	Model not a priority for this population	Model should be offered			
Index testing (HIV partner services and social network approaches)	Model should not be offered	Model should be offered	Model should be offered	Model should be offered	Model should be offered	Model should be offered			



Model should be offered



Model not a priority for this population



Model should not be offered

Table 12: The building blocks of HTS by population

WHEN FREQUENCY	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-14 YEARS	15-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
	Exposed infants according to EID algorithm Birth NAT 6 weeks NAT 9 months NAT 18 months or 12 weeks after cessation of breastfeeding; rapid test	Test if not previously tested and maternal status unknown or child not tested after cessation of breastfeeding; test in EPI Any symptomatic child or presenting with recurrent upper respiratory symptoms or ear infections Any child with TB Any child admitted or presenting with malnutrition Asymptomatic; use paediatric screening tool Any child with TB Any child admitted or presenting with malnutrition	Any symptomatic child or presenting with recurrent upper respiratory symptoms or ear infections Any child with TB Any child admitted or presenting with malnutrition Asymptomatic; use paediatric screening tool	Any symptomatic adolescent Any adolescent with STI or TB, or admitted	Any symptomatic adolescent Any adolescent with STI or TB, or admitted	Any symptomatic young adult Any young adult with STI or TB or admitted	Any symptomatic adult Any adult with STI or TB or admitted Asymptomatic; use adult screening tool	All pregnant and breastfeeding women with unknown status at booking In first trimester or 1st ANC visit; in 3rd trimester or at delivery; 6 weeks postnatal and 6 months postnatal; align testing with EPI visits (6 weeks DTP) or 14 weeks for those who tested in labour and 9 months (measles)	Re-test according to risk assessment; suggest 3 monthly
WHEN TIMING	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours	Clinic opening hours
WHERE	FCH Outreach site IPD	FCH Outreach site IPD	FCH IPD PHC Outreach site	OPD, IPD, STI clinics, FP PHC Youth centres Community locations	OPD, IPD, STI clinics, FP PHC Youth centres Community locations	OPD, IPD, STI clinics, FP PHC Youth centres Community locations	OPD, IPD, STI clinics, FP PHC Workplaces Community locations	FCH- ANC PNC Outreach ANC/PNC activities	OPD, IPD, STI clinics, FP PHC Agreed community locations, hotspots Key population drop-in centres
WHO	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor	Nurse Primary counsellor
WHAT	Pre-test information and post-test counselling NAT testing (birth, 6 weeks, 9 months, then rapid tests)	Pre-test information and post-test counselling Provider-delivered test	Pre-test information and post-test counselling Provider-delivered test	Pre-test information and post-test counselling Provider-delivered test	Pre-test information and post-test counselling Provider-delivered test Distribution of self-test kits from age 16	Pre-test information and post-test counselling Provider-delivered test Distribution of self-test kits	Pre-test information and post-test counselling Provider-delivered test Distribution of self-test kits	Pre-test information and post-test counselling Provider-delivered test Distribution of self-test kits from age 16	Pre-test information and post-test counselling Provider-delivered test Distribution of self-test kits from age 16

2.2.8 Linkage



Linkage to both prevention and treatment is the responsibility of the person who provides the HIV testing service.

Table 13 describes the building blocks for linkage to prevention or treatment.

2.2.9 Documentation and M&E

The current versions of the HTS data collection tools (HTS register, HIVST register and HIV contact tracing register, MRF) should be available at all testing sites.

Documentation for HIV self-testing

Lay cadres distributing HIVST kits in the community document in an A4 version of the HIVST register, provided by the implementing partner. The lay cadres bring this register to the facility where the Primary Counsellor or nurse supervises the lay cadres in entering the data in the facility register.

Documentation for rapid test

Two registers are required, one for the facility and one for the community.

HIV contact tracing register

Elicited contacts should be documented in the HIV contact tracing register and RoC OI/ART care booklet, and in the electronic system where available.

Document preferred testing option and appointment date for the contacts (HIVST – secondary distribution or rapid test) and the model (facility or community).

Document outcomes for each contact.

NB: All the registers should be kept at the facility. Data from communities should be consolidated at the facility at the end of the month.

Regarding compilation of the monthly return form (MRF), all entry points should maintain a copy of the HTS monthly report. The facility MRF is consolidated from all entry point reports, as well as community registers.

Table 13: The building blocks for linkage to prevention or treatment

	WHEN	WHERE	WHO	WHAT
To prevention	Offer linkage on the same day as a negative HIV test Link within 7 days of a negative HIV test	Link from testing site to prevention site Facility-based PrEP initiation Community-based PrEP initiation (see Section 2.3)	HCW or lay cadre performing the HIV test links to prevention	Physical escort where appropriate Follow up through SMS or telehealth Use the MoHCC referral form Service package provided for linkage to prevention services (PrEP, PEP, VMMC, SRH, FP)
To treatment	Offer linkage on the same day as a positive HIV test Link within 7 days of a positive HIV test	Link from testing site to treatment site Facility-based ART initiation (hospital, PHC) Out of facility ART initiation (See Section 2.4.3)	HCW or lay cadre performing the HIV test links to treatment	Physical escort where appropriate Use MoHCC referral form in the community and where services are not provided on site Referrer should follow up RoC in 2 weeks to ensure they have linked to care
Referral to post-GBV services	Immediately after identifying risk of IPV	Linkage from testing site to referral site	HCW or lay cadre who has administered screening	Physical escort where appropriate Use MoHCC referral form in the community and where services are not provided on site
Referral to mental health Services	Immediately after mental health screening as per the stepped care referral pathway (see Section 2.7.5)	Linkage from testing site to referral site	HCW or lay cadre who has administered screening	Physical escort where appropriate Use MoHCC referral form in the community and where services are not provided on site

2.2.10 Quality assurance

Ensuring quality, both internal and external, for all HTS sites (facility and community) is the responsibility of the district and provincial laboratory scientists. The laboratory prepares and distributes samples for internal quality control (IQC), which should be run before testing RoCs, as well as coordinating external quality assessment (EQA) through proficiency testing (PT) panels, which are distributed twice yearly. Internal controls are run on all test kits in the algorithm every morning before testing RoCs, on receipt of a new consignment, or when opening a new kit (box).

All active testers should participate in the EQA programme provided by the National Microbiology Reference Laboratory (NMRL) or ZINQAP. All PT documentation (samples distributed, results returned and performance reports, as well as root cause analysis and corrective action for failed PT) should be kept at the testing site. Sites should update district laboratory scientists and the NMRL on any testing staff changes. Any panels sent to the site in the name of a tester

who has left the facility should be tested by the replacement and clearly documented on the results, which are submitted for grading to the NMRL and ZINQAP so that the PT database can be updated.

Regular ongoing support, supervision and mentorship of HIV testing sites and competency assessments of personnel performing HTS are critical for ensuring that high-quality services are being offered in the programme. Testing sites will also implement rapid test continuous quality improvement (RTCQI) to improve the quality of testing. Scale up of this initiative will be done gradually to cover all sites.

As part of the quality assurance system, the district and/or supporting laboratory scientists should periodically (quarterly) carry out supportive supervision of testing facilities.

Full details regarding quality assurance for HIV testing can be found in the *HIV Diagnosis Quality Assurance Guidelines for Zimbabwe* (2021).

2.3 Differentiated prevention services

The provision of prevention strategies for HIV should take a combination approach, including HIV testing services (HTS), use of male and female condoms, lubricants, ART for partners with HIV in sero-discordant couples, voluntary medical male circumcision (VMMC), pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP) and sexually transmitted infection (STI) prevention and management. This section will focus on the programmatic strategies that may be employed in the implementation of condom and lubricant distribution, PrEP and VMMC, using the building blocks of differentiated service delivery.

2.3.1 Condom and lubricant distribution

The national comprehensive condom programme is aimed at increasing availability, access and informed demand for male and female condoms and lubricants. Figure 10 outlines the building blocks to be considered for condom and lubricant distribution.

Counselling for condom use

Counselling on condom use should aim to dispel myths and misconceptions and instil confidence among recipients of care so they feel comfortable to access and use condoms.

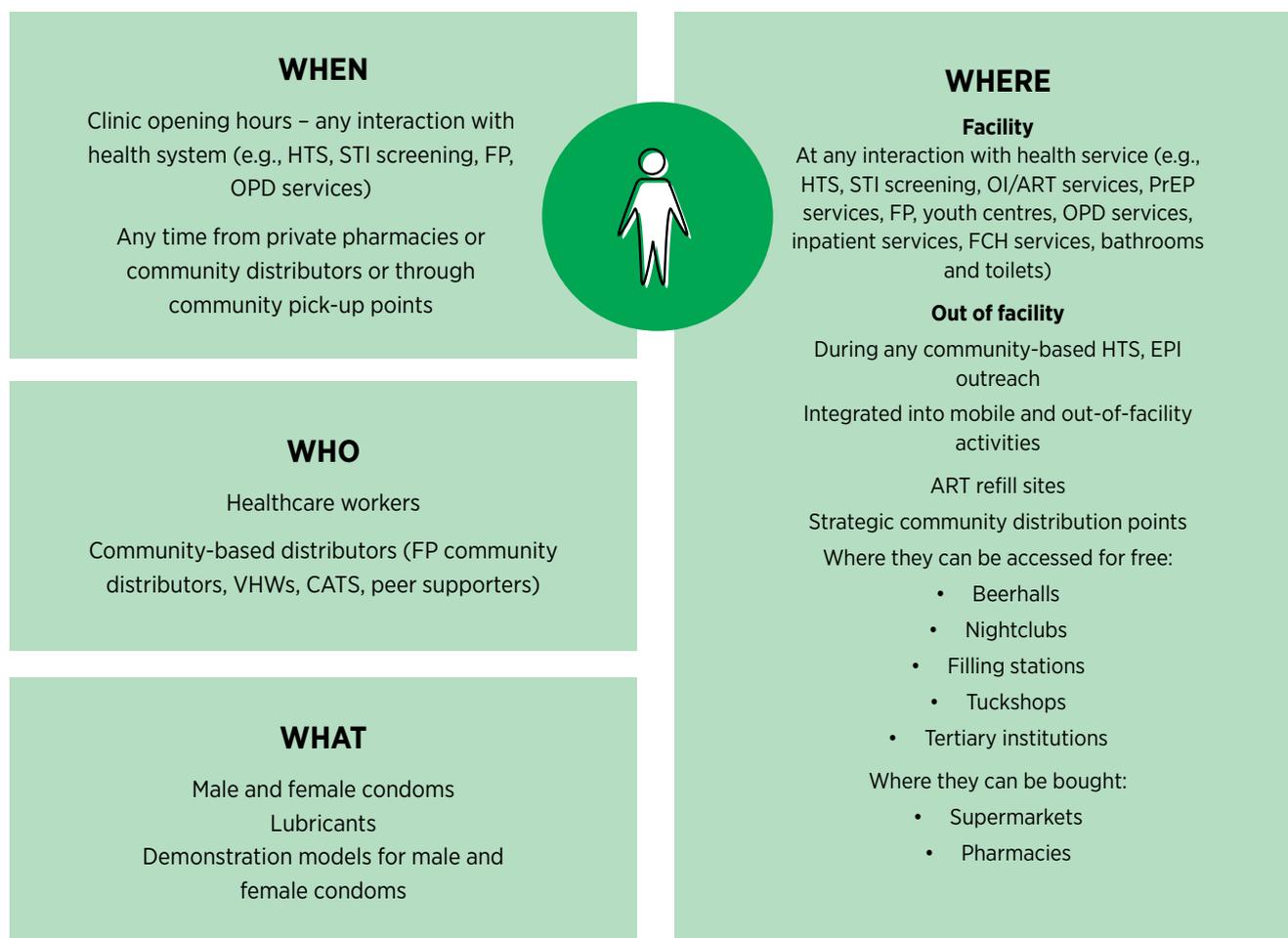
Table 14 outlines the steps to describe how to correctly wear a male and female condom.

Negotiating condom use with a partner

The following approaches may be used to help negotiate condom use with a partner:

- Each person tries to persuade the other party to support their view (a “win” situation) or at least to agree on a compromise or middle position (a “win-win” situation). The goal for each person must be to practice safer sex.
- Choose a relaxing environment in a neutral location, preferably outside the bedroom, where neither of you feels pressured.
- Do not wait until you or your partner are sexually aroused

Figure 10: Building blocks for condom and lubricant distribution



to discuss condom use. In the heat of the moment, you and your partner may be unable to talk effectively.

- Use “I” statements when talking. For example, “I would feel more comfortable if we used a condom.”
- Be a good listener. Let your partner know that you hear, understand and care about what they are saying and feeling.
- Be “ask-able” – let your partner know that you are open to questions and that you won’t jump on them or be offended by questions.
- Be patient and remain firm in your decision that talking is important.

- Recognize your limits. You don’t have to know all the answers.
- Avoid making assumptions.
- Ask open-ended questions to discuss expectations, past and present sexual relationships, contraceptive use, HIV testing, and so on. For example, “What do you think about us both going for an HIV test?”
- Ask questions to clarify what you believe you heard. For example, “I think you said you want us to use condoms. Is that right?”
- Avoid judging, labelling, blaming, threatening or bribing your partner. Don’t let your partner judge, label, threaten or bribe you.

ADAPTATIONS FOR CONDOM AND LUBRICANT DISTRIBUTION FOR SPECIFIC POPULATIONS	
Population	Adaptation
 Adolescents and young adults	Make available at youth centres or sports facilities, drop-in centres and safe spaces.
 Key populations	Make available at strategic hotspots/locations, drop-in centres and safe spaces. Offer range of condom brands. Offer extra lubricants where required.

Table 14: Steps on how to correctly wear a condom

MALE	FEMALE
<ol style="list-style-type: none"> 1. Ensure packet is intact. 2. Check expiry date. 3. Carefully open and remove condom from package – do not use teeth or any sharp object. 4. Make sure condom will unroll from the correct side. 5. Squeeze air out of the tip of condom. 6. Place condom on erect penis. 7. Roll condom down the penis. 8. Smooth out air bubbles. 9. Add additional lubricant if required and if available. 10. With condom on, insert erect penis for intercourse. 11. After ejaculation, hold on to condom at base of penis. 12. Withdraw penis while still erect. 13. Remove condom from penis. 14. Dispose of condom safely (burn/bin toilet). <p>Please note:</p> <ul style="list-style-type: none"> • Do not use oil-based lubricants on latex condoms. • Use one condom at a time. • Use once only and discard. 	<ol style="list-style-type: none"> 1. Ensure packet is intact. 2. Check expiry date. 3. Spread lubrication. 4. Find notch on top right and tear downwards. 5. Remove condom from pack. 6. Grasp condom with one hand and squeeze inner ring with thumb and fingers of other hand to form a point. 7. Choose a position that you are comfortable with: <ul style="list-style-type: none"> • Squatting • Sitting at edge of bed/chair/toilet seat • Placing one foot on a chair or toilet seat • Lying on your back 8. Separate lips of vagina. 9. Gently insert ring into vagina. 10. Place index finger inside condom and push ring as far as it will go. 11. When ready, gently guide partner’s penis into condom (he could do it also). 12. After use, when ready to remove, twist outer ring and gently remove condom before standing. 13. Do not reuse. 14. Place in packet or wrap in paper and throw in garbage. <p>Please note:</p> <ul style="list-style-type: none"> • You can use oil- or water-based lubricants with FC2. • Use one condom at a time. • You put on the condom just before sex. • Remember the one wearing the condom is the one condomizing.

2.3.2 Differentiated pre-exposure prophylaxis (PrEP) services

PrEP is the use of antiretroviral medicines by HIV-negative individuals at substantial risk of getting HIV to reduce acquisition of HIV. PrEP medication options are shown in Figure 11. Oral PrEP is taken as dual therapy (TDF+FTC or 3TC) daily during periods of risk and does not have to be for life. If taken strictly, oral PrEP may reduce the risk of acquiring HIV by 90%, but works best as part of other HIV prevention measures.

Population groups that may be most vulnerable to HIV acquisition include:

- Sero-discordant couples (the HIV-negative partners)
- Adolescent girls and young women
- Pregnant and lactating women in relationships with men of unknown status or, if HIV positive, with a viral load that is not suppressed
- Key populations

Eligibility and risk assessment for PrEP is outlined in the Zimbabwe HIV prevention, testing and treatment guidelines. This section will focus on how service delivery models can be designed to increase access to PrEP.

The principles of differentiated service delivery for PrEP should be applied to all PrEP methods that have been adopted in the Zimbabwe clinical guidelines, such as oral PrEP and future PrEP options (dapivirine vaginal ring, long-acting injectables). Figure 11 shows the different PrEP products that are, or will soon become, available in Zimbabwe.

Different RoCs will have different PrEP requirements. Oral PrEP use falls into two categories: – daily oral PrEP and event-driven PrEP (ED-PrEP). Details of how to prescribe PrEP can be found in the Zimbabwe HIV prevention, testing and treatment guidelines, but the duration of use is of key importance when designing differentiated PrEP services. **The following must be ruled out before initiating a RoC on PrEP:**

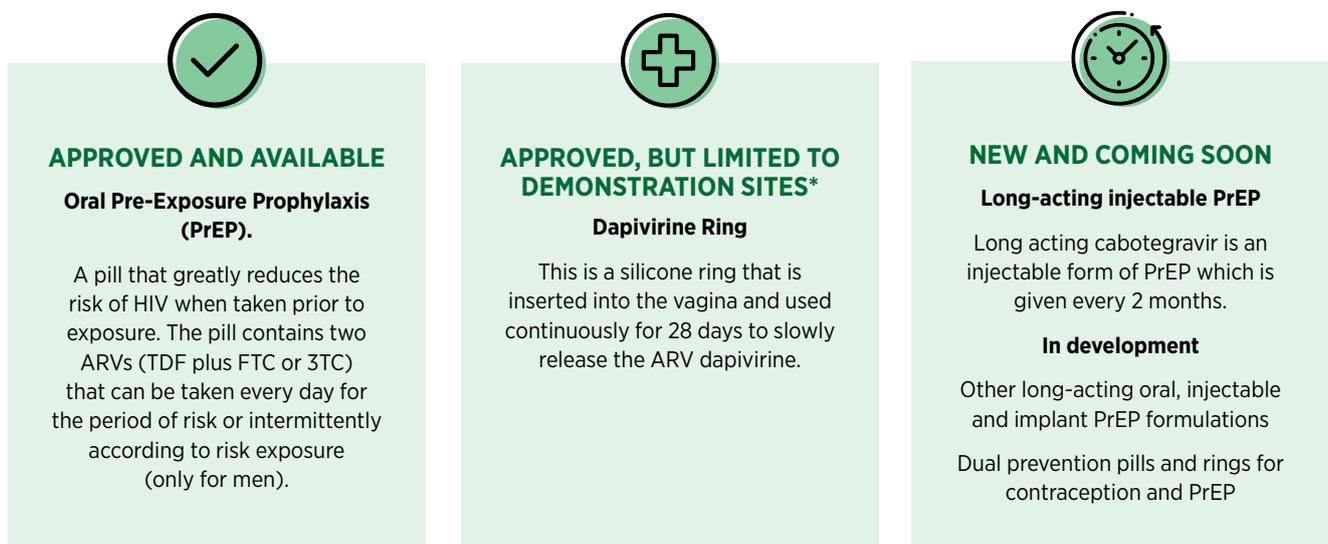
- HIV-positive status
- Acute HIV illness
- Unknown HIV status
- Allergy to any medicine in the PrEP regimen
- Unwilling or inability to adhere to PrEP
- Known renal impairment (vulnerable groups, such as people with diabetes or with uncontrolled hypertension, should have blood creatinine tested before initiation of a TDF containing PrEP regimen.)

Oral PrEP

Daily oral PrEP use

- Daily oral PrEP must be taken at least seven days before the potential exposure.
- Daily oral PrEP may be needed for variable durations of time according to assessment of ongoing risk.
- Risk is often seasonal, for example, during periods of sex work linked to seasonal farming or mining activities.
- For those RoCs with a more prolonged period of risk, access to ongoing PrEP refills should be facilitated through the building blocks of differentiated service delivery for PrEP (Table 16).

Figure 11: PrEP medication options



* Although Dapivirine Vaginal ring may be offered to women who are unable to use daily oral PrEP, MOHCC recommends that this should be implemented under research settings to gather enough evidence for its wider use.

Event-driven/on-demand/“2+1+1” PrEP use

- Event-driven oral PrEP (ED-PrEP) can only be used by individuals assigned male at birth and not exposed to exogenous oestradiol hormones, such as gender-affirming hormone therapy.
- It is effective in reducing the likelihood of acquiring HIV in anyone assigned male at birth and not exposed to gender affirming hormones.
- With ED-PrEP, the RoC takes oral PrEP for a minimum of three days with the loading dose taken 2–24 hours before exposure.
- Event-driven PrEP may be repeated several times a month and may be continued over a short or prolonged period of time. In these cases, the building blocks of differentiated service delivery for PrEP (Table 16) should be considered for event-driven PrEP refills as well.
- Regarding transitioning from ED-PrEP and daily oral PrEP, RoCs may switch from ED-PrEP to daily PrEP due to changes in relationship status or sex partner(s) or moving to a new location whereby the predictability of sex changes or when a RoC’s preferred dosing option changes. Transitioning to daily dosing may be appropriate if sex becomes more frequent and less predictable. To transition, a RoC would continue daily dosing after the last exposure until sex becomes less frequent or more predictable again or for as long as the RoC prefers the daily dosing option. The RoC may discontinue the daily dosing two days after the last exposure if they are no longer at risk. A RoC should continue with daily oral PrEP during periods of risk.
- Regarding transitioning from daily oral PrEP to ED-PrEP, this may be appropriate if sex becomes less frequent and more predictable and if the RoC does not have chronic hepatitis B. A RoC should stop daily dosing two days after the last potential exposure and then start following the ED-PrEP regimen until sex becomes more frequent or less predictable.

Dapivirine ring

- This is a silicone ring that is inserted into the vagina and used continuously for 28 days to slowly release the ARV dapivirine during the period of exposure.
- The ring may be stored at room temperature and, therefore, a three-month prescription of rings may be provided.

Counselling on PrEP use

Counselling should focus on assessing HIV risk, the RoC’s desire to adhere to PrEP, managing side-effects, and assessing for mental health, depression, substance abuse and IPV/GBV.

- PrEP is to be given to RoCs who test negative for HIV and where there is no suspicion of acute HIV infection or recent high risk exposure within 72 hours.
- Adherence to PrEP is essential as PrEP works when taken as prescribed correctly and consistently. By adhering to the correct dose and frequency, HIV-negative individuals can achieve the required reduction in HIV vulnerability.
- Health workers should positively influence adherence by facilitating accurate knowledge and understanding of medication benefits, identifying and linking RoCs to relevant social support, preparing them to manage and report side-effects, and maintaining an open line of communication with PrEP users.
- It is important to highlight that PrEP use does not have any dietary restrictions.
- Screening for adherence by health workers should focus on identifying the barriers outlined to provide relevant support to the client.
- PrEP does not protect against other STIs or prevent pregnancy; continued condom use is recommended.

Table 15: Barriers to adherence to PrEP

INDIVIDUAL FACTORS	MEDICAL FACTORS	STRUCTURAL FACTORS
<ul style="list-style-type: none"> • Forgetting doses • Being away from home • Changes in daily routines • Mental health illness • Limited understanding of benefits of PrEP • Substance or alcohol use • Absence of supportive environment • Fear of stigma and discrimination • Fear of HIV testing 	<ul style="list-style-type: none"> • Adverse events • Complexity of dosing regimens • Pill burden 	<ul style="list-style-type: none"> • Distance to health services • Long waiting times to receive care and obtain refills • Burden of direct and indirect costs of care • Limited key population and youth-friendly services • Limited access to pharmacies

Integration of PrEP services into other health services

To support the scale up of PrEP, initiation and maintenance of PrEP should be integrated into other health services.

Suggested health facility entry points for integration include:

- Antenatal and postnatal clinics
- STI clinics
- Family planning clinics
- Adolescent and youth-friendly services
- Drop-in centres for key populations
- Facility-based HIV testing sites
- OI/ART department
- Outpatient departments
- Inpatient departments
- Cervical cancer screening services
- VMMC

The building blocks of differentiated service delivery for PrEP

The building blocks of differentiated service delivery for PrEP can be used whether offering oral daily PrEP, ED-PrEP or the dapivirine vaginal ring. The building blocks of when (frequency and timing), where (location), who (cadre delivering the service) and what (package of care) should be described for the following components of PrEP service delivery:

- Mobilization
- Risk screening
- Initiation
- PrEP follow-up (Month 1, Month 3)
- PrEP maintenance – for those using PrEP for more than six months

Table 16 outlines the follow-up schedule and building blocks for the above components of differentiated service delivery for PrEP.

Table 16: Differentiated service delivery for PrEP

	MOBILIZATION FOR PrEP	RISK SCREENING	INITIATION	MONTH 1 FOLLOW-UP	MONTH 3 FOLLOW-UP	MONTH 6 AND 3 MONTHLY THEREAFTER IF ONGOING EXPOSURE
WHEN	<p>During consultations at the identified health service delivery points</p> <p>During outreach activities, including those for adolescents and young adults, key populations</p> <p>During HTS group and individual counselling, including in ANC</p>	<p>Immediately after receiving a negative HIV test</p>	<p>Same day as negative test or within 7 days</p>	<p>Yes</p>	<p>Yes</p>	<p>Yes</p> <p>3 monthly</p> <p>Adapted times for key populations to access PrEP</p>
WHERE	<p>Adolescent and young adult services and clubs</p> <p>ANC and PNC clinics</p> <p>Key population outreach sites</p> <p>STI clinics</p> <p>Family planning clinics</p> <p>Drop-in centres for key populations</p> <p>Facility-based</p> <p>HIV testing sites</p> <p>OI/ART department</p> <p>OPD</p> <p>IPD</p> <p>Cervical cancer services</p> <p>VMMC</p>	<p>All facility or out-of-facility HTS sites</p> <p>PrEP should be initiated in ANC and PNC</p>	<p>Same site as HTS where possible (facility or out of facility where HCW present)</p> <p>OPD and IPD</p> <p>PrEP should be initiated in ANC and PNC</p>	<p>Same site as HTS where possible (facility or community where HCW present)</p> <p>OPD and IPD</p> <p>PrEP should be followed up in ANC and PNC</p>	<p>Same site as HTS where possible (facility or community where HCW present)</p> <p>OPD and IPD</p> <p>PrEP should be followed up in ANC and PNC</p>	<p>Same site as HTS where possible (facility or community where HCW present)</p> <p>OPD and IPD</p>
WHO	<p>Nurse</p> <p>Primary counsellors</p> <p>CATS</p> <p>Key population peer supporters</p>	<p>Nurse</p> <p>Primary counsellor</p>	<p>Doctor</p> <p>Nurse</p>	<p>Doctor</p> <p>Nurse</p> <p>Primary counsellor (HTS)</p> <p>Review side effects</p>	<p>Doctor</p> <p>Nurse</p> <p>Primary counsellor (HTS)</p> <p>Review side effects</p>	<p>Doctor</p> <p>Nurse</p> <p>Primary counsellor (HTS)</p>
WHAT	<p>Risk assessment tool</p> <p>Linkage to combination prevention, including PrEP</p> <p>Education on what, why and how of PrEP</p>	<p>Risk assessment and baseline investigations (see clinical guidelines)</p> <p>1-month PrEP refill</p> <p>Assess pregnancy status and offer FP or referral</p>	<p>Review side-effects and adherence</p> <p>2-month PrEP refill</p> <p>Assess pregnancy status and offer FP or referral</p>	<p>Review side-effects and adherence</p> <p>3-month PrEP refill</p> <p>Assess pregnancy status and offer FP or referral</p>	<p>Review side-effects and adherence</p> <p>3-month PrEP refill</p> <p>Assess pregnancy status and offer FP or referral</p>	<p>HTS</p> <p>Review side effects and adherence</p> <p>3-month PrEP refill</p> <p>Assess pregnancy status and offer FP or referral</p>

Stopping and restarting oral PrEP safely

For the majority of RoCs, HIV vulnerability and exposure will change over time. It is therefore very common for RoCs to choose to stop and start PrEP according to periods of risk.

Clients should be aware that they can restart PrEP whenever they are again at substantial vulnerability to HIV acquisition, but should have a negative HIV test prior to restarting.

Recipients of care using the dapivirine vaginal ring should use other HIV prevention methods immediately after removal if they consider themselves to be still at risk. It is not encouraged to take daily oral PrEP and dapivirine at the same time.

Table 17 outlines guidance for stopping and restarting PrEP.



PrEP for pregnant and breastfeeding women

- Seroconversions during pregnancy and breastfeeding still contribute significantly to new paediatric HIV acquisitions. Hence, there is a need to provide a comprehensive prevention package for HIV-negative women most vulnerable to HIV transmission.
- Daily oral PrEP should be offered to pregnant and breastfeeding women assessed as being at substantial risk of HIV acquisition.
- A screening tool to assess vulnerability to HIV acquisition for pregnant and breastfeeding can be found in Appendix 2.

Figure 12 outlines the building blocks of providing PrEP for pregnant and breastfeeding women.

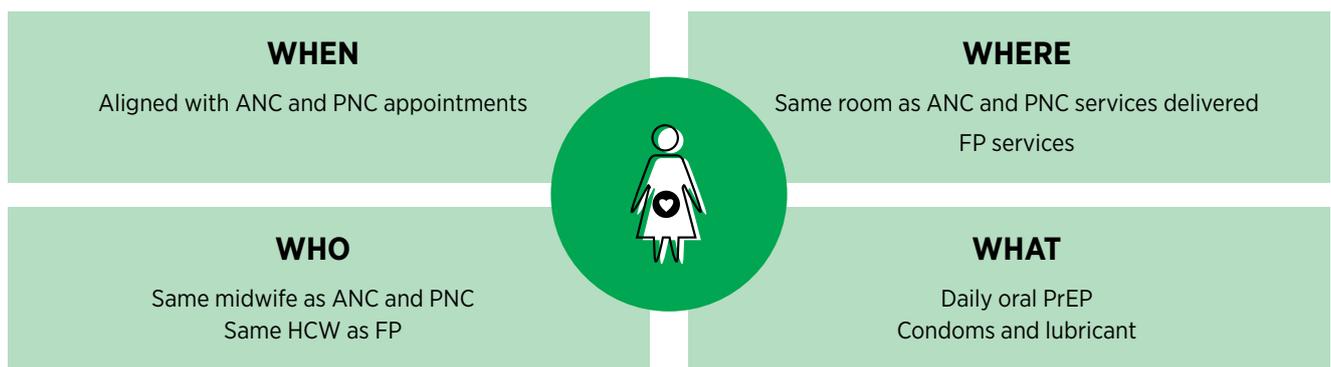


Women should access PrEP during their ANC and PNC visits.

Table 17: Guidance for starting and stopping oral PrEP

POPULATION(S)	STARTING ORAL PrEP	STOPPING ORAL PrEP
People using oral PrEP to prevent HIV acquisition from non-sexual exposures People assigned female at birth People assigned male at birth who are using oestradiol-based exogenous hormones	Take a single dose daily for seven days before potential exposure.	Take a single dose daily for 7 days after last potential exposure.
People assigned male at birth using PrEP to prevent HIV acquisition during sex who are not using oestradiol-based exogenous hormones (those taking ED-PrEP)	<p>ED-PrEP: Take a double dose two to 24 hours before potential sexual exposure (for those intending to use ED-PrEP). Ideally, this loading dose should be taken closer to 24 hours before potential exposure.</p> <p>Daily oral PrEP: Take a single dose daily for seven days before potential exposure.</p>	<p>ED-PrEP: Take a single dose daily for two days after the last potential exposure.</p> <p>Daily oral PrEP: Take a single dose daily for 7 days after last potential exposure.</p>

Figure 12: The building blocks of providing PrEP for pregnant and breastfeeding women



Transition to differentiated HIV treatment services

If a RoC on PrEP tests positive for HIV, the HCW performing the HIV test is responsible for referring the RoC for ART initiation either at the facility or an out-of-facility initiation site.

2.3.3 Voluntary medical male circumcision (VMMC)

Background

Male circumcision is the complete and permanent removal of the fold of skin that covers the head of the penis (foreskin or

prepuce). To achieve the highest impact, demand generation should be focused on the 15-29-year age group.

VMMC has been shown to reduce female to male sexual transmission of HIV by up to 60%.

Service delivery models for VMMC

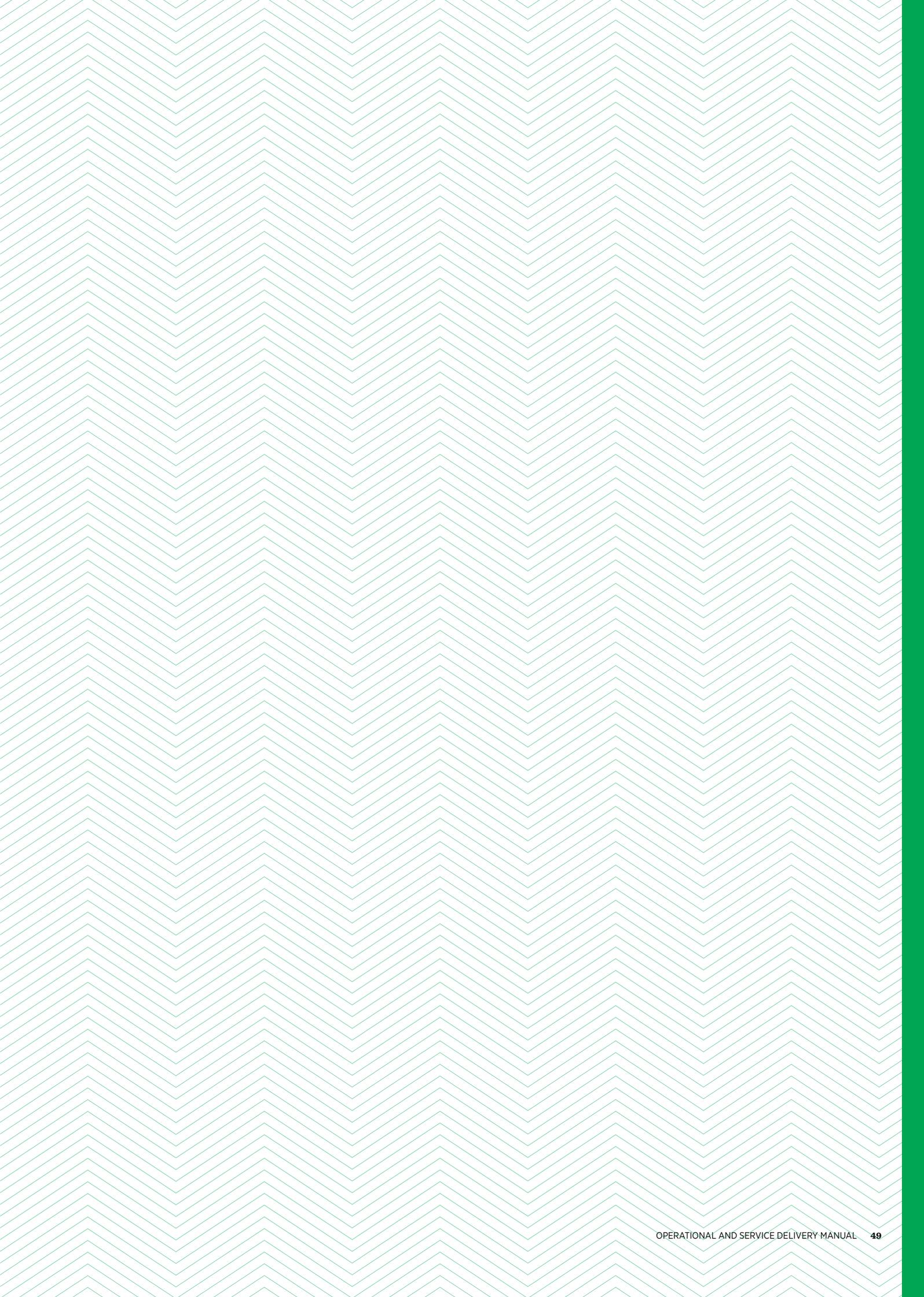
Figure 13 outlines the building blocks of service delivery for VMMC.

Figure 13: The building blocks of service delivery for VMMC



Table 18: Human resource staffing options for high-, middle- and low-volume sites

ITEMS	HIGH-VOLUME SITES	MIDDLE-VOLUME SITES	LOW-VOLUME SITES
Beds	8	4	2
VMMC performed per day	20+	10-19	<10
Site manager	1	1	1
Circumcisers	3	2	1
Nurse counsellor/assistant	2	1	1 Shared role
Nurse aide/runner	2	1	1
Mobilizer	20	5-7	1-4
Data clerk/receptionist	1	Shared role	Shared role
Driver	2	1	N/A



2.4 Differentiated ART Initiation

2.4.1 Why do we need to differentiate ART initiation?

Three factors drive how we need to differentiate initiation for RoCs:



1. THE CLINICAL CONDITION OF THE RoC

Identification of advanced HIV disease, which includes clinical examination AND a baseline CD4, will differentiate the clinical package at initiation (see Section 2.8.2).



2. WHETHER THE RoC IS RE-ENGAGING IN CARE (SECTION 2.4.8)



3. THE RoC'S CHOICE OF LOCATION FOR INITIATION

ART initiation may be performed at the facility or out of facility

Evidence suggests that being able to offer ART initiation out of facility on the same day may increase linkage and long-term retention.

2.4.2 The building blocks of differentiated ART initiation

WHEN

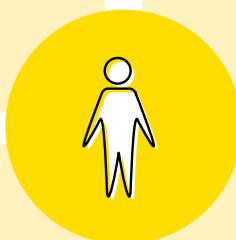
All RoCs should be assessed for and offered **rapid initiation on the same day as HTS**.

If the RoC is not ready on the same day for clinical or psychosocial reasons, then ongoing medical investigation and/or counselling support should be provided with the aim of **initiating ART as soon as possible, ideally within 1 week unless there is a clinical contraindication**.

WHERE

ART initiation may be performed **at the facility or out of facility** (see Section 2.4.3)

If the RoC is not ready for initiation on the same day as testing, follow-up counselling may be performed in the community or by telehealth.



WHO

Initiation may be performed by the following cadres: doctor, clinical officer or nurse.

WHAT

Step 1: Provision of HIV and ART education

Step 2: Clinical readiness and assessment of RoC with advanced HIV disease (including CD4, screening for TB [LAM] and cryptococcal disease if CD4 is <200 cells/mm³)

Step 3: Psychosocial readiness assessment

Step 4: Treatment plan

Always assess whether the RoC is re-engaging in care (see Section 2.4.8 page 59).



2.4.3 New: Out-of-facility ART initiation

Definition

Out-of-facility ART initiation is when a RoC who tests positive is initiated on ART outside the facility.

Who can perform out-of-facility initiation

Out-of-facility initiation can be performed by the following cadres: doctors, clinical officers or nurses.

Who can be initiated out of the facility

Any RoC regardless of age who tests positive may be initiated at an out-of-facility site if:

- The healthcare worker is trained to initiate ART.
- The setting provides space for privacy to perform history taking and examination.
- Weight can be accurately assessed for children.

What must be carried out during out-of-facility initiation

- The RoC must have Steps 1-4 (Section 2.4.4) assessed as per the standard ART initiation procedure.
- During the counselling, explore in a non-judgemental way any prior ART use. If there is prior ART, go to the re-engagement algorithm (Page 59).
- Assessment of advanced HIV disease: POC CD4 (LAM and CrAg where possible) should be offered at the community location to identify advanced HIV to differentiate the initial follow-up schedule. Where this is not possible: if the RoC is asymptomatic, the baseline CD4 may be performed at month one when linked to the nearest facility; if the RoC is seriously unwell or if blood CrAg is positive, refer them to the appropriate facility for further investigation.
- If the RoC has TB symptoms, a sputum sample should be collected and follow-up at the facility of the RoC's choice should be arranged within one week. If LAM testing is indicated, available and positive, initiate TB treatment and notify the RoC according to standard protocols. Still collect a sputum sample for Xpert MTB/Rif testing. Provide two weeks of treatment and book follow-up at the facility of choice for the RoC.
- For those without TB symptoms, one month of ART should be provided and the RoC should be linked to the facility of their choice for the follow-up visit.
- The same standard or intensive follow-up schedule for the first six months should be followed according to the process set out in Tables 20-22 pages 62-64.

2.4.4 The four steps of ART initiation

Once a RoC has tested HIV positive at a facility or in the community, they should be immediately registered and an OI number issued. All RoCs who are HIV positive are eligible to start ART. Rapid initiation should be offered after Steps 1-4, outlined here, have been assessed. Same-day ART should be offered, but if the RoC is not ready, the goal should be to initiate all RoCs within seven days.



Although all RoCs are eligible for ART on the same day as they test positive, before initiation is performed, a readiness assessment must be made. This includes clinical readiness and psychosocial readiness.

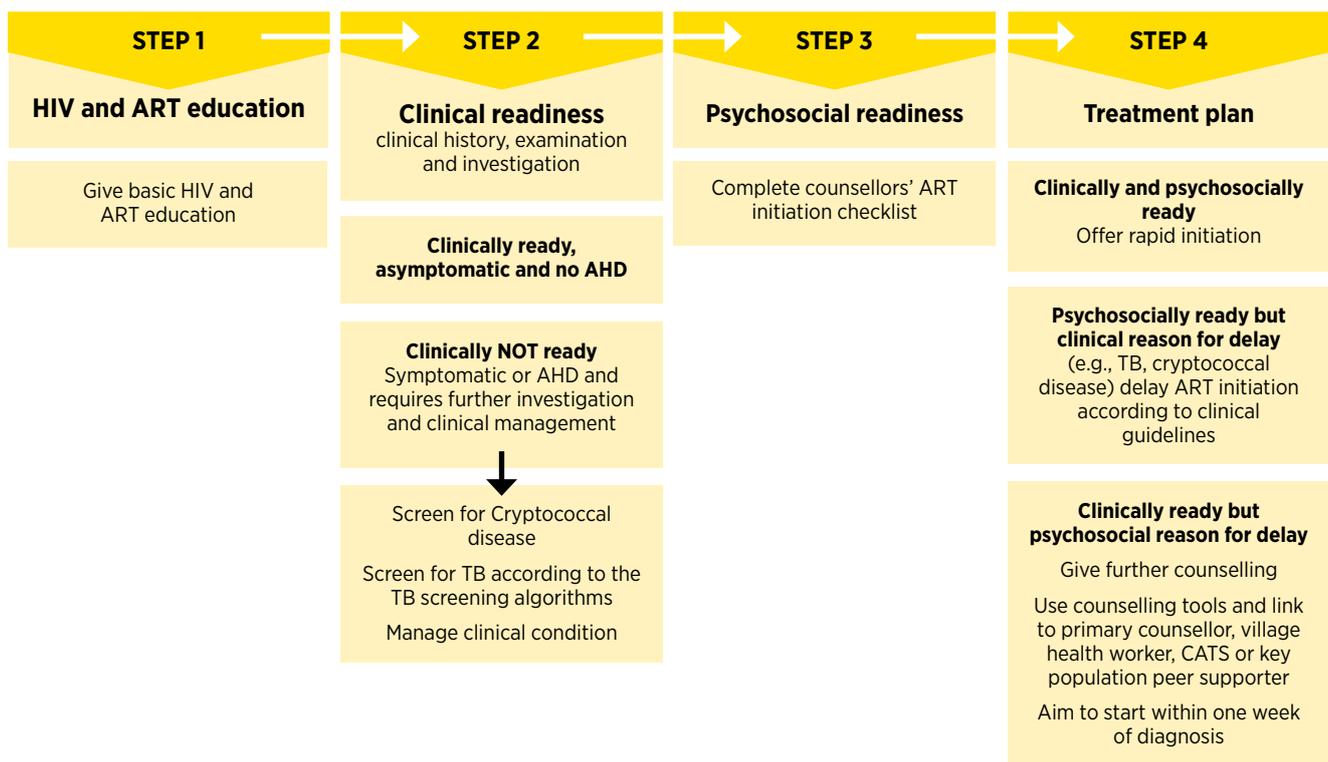
Step 1: Provision of HIV and ART education (clinician, primary counsellor or expert RoC). Establish whether the RoC has ever been on ART before.

Step 2: Clinical readiness: history, physical examination, baseline laboratory investigations, including an investigation to identify and screen for advanced HIV disease (clinician). All RoCs who have never been on ART or stopped ART more than three months ago should have a CD4 count performed. Establish whether the RoC is pregnant.

Step 3: Psychosocial readiness assessment (clinician or primary counsellor) (Refer to 2.4.6)

Step 4: Treatment plan (clinician)

Figure 14: The four steps of differentiated ART initiation



2.4.4 Step 1: HIV and ART education

All RoCs should receive the initial session of HIV and ART education on the day of testing or first day of linkage to a facility. Use the counselling tools in the Job Aide to support this education. The counsellor must assess how much information the RoC is able to absorb in the initial interaction. For some, it may be appropriate to complete initial HIV education and ART education on the same day. For some, these sessions should be scheduled two to three days apart. It is important to remember that RoCs may travel long distances to attend the clinic and may have to take time off work. Where expert RoCs are present in the community, follow-up counselling covering the information in these sessions may also be performed in the community (with the assistance of CATS, expert RoCs, key population peer supporters or other community cadres) with the consent of the RoC or remotely by telehealth.

 Counsellors should write their findings in the notes section of the RoC OI/ART care booklet. Clinicians should refer to these notes and discuss face to face with the counsellor if problems have been identified.



Special considerations for HIV education for children and adolescents

The way that HIV and ART education is carried out will depend on the age of the child and the decision made with the guardian around disclosure. The guardian should be given all the education, as outlined in the disclosure session guides. Younger children should be included in the sessions and can participate without having to name HIV. Partial disclosure should be achieved by age six and full disclosure by age 10. If disclosure is supported early in the process of their diagnosis, this has been shown to support adherence.

To indicate the stage of disclosure of the child, it should be indicated as per Figure 15 on the front page of the RoC's OI/ART care booklet.

Figure 15: Disclosure stage

-  **Not disclosed**
-  **Partial Disclosure**
-  **Full disclosure**



2.4.5 Step 2: Clinical readiness

At the first assessment, a full history, clinical examination and request for baseline investigations, including CD4, should be carried out.



The assessment should determine:

- Does the RoC have advanced HIV disease (Stage 3, 4 and/or CD4 <200 cells/mm³)?
- Eligibility for TPT
- Any clinical reason to not offer rapid initiation (same day or within one week)

History

A full medical history should be taken at the first visit.

History of present illness

Check for the main problem of today. For each problem, further enquire: Since when? Where? How? Any aggravating conditions? Note a timeline of the complaint.

Are there any associated constitutional symptoms, e.g., loss of appetite, loss of weight, night sweats?

In a woman of child-bearing age, when was her last period? Could she be pregnant? Is there any unmet contraception need?

Ask in a non-judgemental way whether the RoC has previously been on ART.

Past medical history

TB: Previous history of TB: Was treatment completed? Has there been any recent/current contact with a person with TB (drug-sensitive or drug-resistant)?

OIs: Has the RoC been treated for or admitted for any staging OIs?

Other conditions, e.g., epilepsy, diabetes, hypertension. This is important as symptoms may overlap and they may predispose the RoC to a higher risk of side-effects, e.g., diabetes and hypertension may mean a higher risk of renal side-effects with TDF; there may also be significant drug interactions that must be taken into consideration.

Previous psychiatric disorder – anxiety and depression

Medicine history

Is there any prior exposure to ARVs (including PMTCT, PrEP and PEP)? The RoC may have previously been initiated on ARVs in another setting.

Look out for other nephrotoxic medicines, e.g., long-term NSAIDs or aminoglycosides. Assess use of nephrotoxic medicines and assess whether it is appropriate to use

TDF with these medicines, especially if creatinine cannot be monitored.

Assess whether there are any medicines that may have significant interactions (see clinical guidelines) and whether there are alternatives for those medicines or whether an alternative ART regimen should be considered.

Family history

Does the RoC have a partner or children? Have they all been tested?

Social history

What is the RoC's support network at home? Are they employed? Have they been able to maintain their job? Is there any history of alcohol or other substance abuse?

Review of systems

Any weight loss noticed by the RoC

Any rashes; any history of a painful blistering rash (herpes zoster) = Stage 2

Any diarrhoea (more than a month = Stage 3)

Any recurrent fever (more than a month = Stage 3)

Screen for STIs

Screen for TB symptoms using the TB screening tool

Screen for symptoms of depression and anxiety (see Section 2.7.5)



A full antenatal obstetric history should be taken at the first visit.

Record birth history and history of immunizations.

Examination

All RoCs should be examined fully at the first clinical assessment. The purpose of the examination is to stage the RoC and detect any signs of possible OIs or HIV-related cancers prior to initiation of ART in order to avoid IRIS. For example, a swollen cervical lymph node may be the only sign of TB in a RoC with HIV and may go unnoticed if the RoC is not examined.

To examine the RoC properly, they should undress as needed and be examined on the couch. You will need a torch/flashlight to properly examine the mouth and a stethoscope to examine the chest.

What is the RoC's general condition?

Check weight and height and calculate BMI. If there is any previous weight documented in the RoC notebook, have they lost more than or less than 10% (<10% Stage 2; >10% Stage 3)?

Check the vital signs (pulse, respiratory rate, oxygen saturation, blood pressure and temperature). Refer according to EDLIZ guidance.

Assess for any pallor (anaemia due to TB or HIV itself) or jaundice.

Assess the skin: herpes zoster acute or scars; pruritic papular eruptions (PPE); fungal rashes.

Examine the mouth and palate for signs of oral thrush, oral hairy leukoplakia or Kaposi's sarcoma.

Examine the lymph nodes in the neck, above the collar bones, under the armpits and in the inguinal region to see if they are enlarged.

Examine the chest for any signs of respiratory distress or focal respiratory signs.

Examine the abdomen. Are there any masses or tenderness?

Examine the genital area for STIs.



In pregnant women, a full obstetric examination will have to be performed.



In children, assess growth, nutritional status and developmental milestones. Remember to perform an ENT examination in children. Chronic otitis media is common in children with HIV

and, if untreated, can lead to long-term hearing problems.

Baseline investigations

Essential:

Perform verification HIV testing on the day of ART initiation on a second sample; ideally, this should be done by a different HCW. Where there is no second tester, wait one hour, and then perform verification testing before ART initiation.

It is preferable in most instances to perform the following baseline tests/measurements. However, if not available, ART initiation should not be delayed:

- Serum creatinine test (if tenofovir will be used)
- Baseline CD4. NB: A baseline CD4 test is indicated to diagnose advanced HIV disease. This will inform differentiated ART initiation and follow-up for the RoC.
- If CD4 is <200, perform TB LAM and CrAg
- Pregnancy test
- Alanine transaminase test (ALT)
- GeneXpert test or chest X-ray (to exclude TB) according to TB screening algorithm
- Blood pressure measurement

If possible, perform the following tests also prior to commencing ART:

- Syphilis serology test
- Hepatitis B and C virus screening

2.4.6 Step 3: Psychosocial readiness assessment

Assess readiness to start ART

- Ask the RoC what the three important reasons are for them to stay healthy and alive.
- Assess willingness to start ART.



Is the RoC re-engaging in care?

If the RoC has previously been on ART, explore reasons for stopping.

It is important that healthcare workers adopt a non-judgemental approach for the RoC who is re-engaging in care.

The RoC should be congratulated for re-engaging in care and the reasons for stopping and the barriers faced should be openly discussed.

Recap knowledge of ART education session. Can the RoC describe:

- Routes of transmission of HIV and ways to prevent transmission, including how to use condoms
- The evolution of HIV infection with and without any ARV treatment
- What happens if ARVs are not taken as prescribed (development of resistance and treatment failure)
- What the results of VL monitoring mean (suppressed, low-level viraemia and unsuppressed; see Section 2.5.7). It should be made clear that a suppressed viral load does not mean a cure.
- How to recognize the red-flag symptoms and signs (OIs and side-effects) with which they must come immediately for consultation (see Section 2.5.5)
- Whether they have disclosed their status to their partner or other family members or friends
- Why they are eligible to start ART today and that ART treatment is lifelong
- For each of the medicines, the name, frequency and side-effects that might occur
- Use of herbs: Why it's important to stick to ARVs as a treatment
- Why it is important to come on the review date given and what to bring (all remaining medications)
- What to do in case of travel
- Plan with the RoC how they will take their medicines:
 - What would be the best timing for you to take your medicines, taking into account your daily habits?

- What tools will you use to remind yourself to take your medicines (alarm)?
- Where will you store your medicines?
- Where will you keep extra doses in case you are out of the house?
- How will you manage missed doses?
- What will you do in case of side-effects?

Explain follow-up plans

Explaining follow-up is quite intense at the start of treatment (M1, M3, M6), but will become less frequent once the RoC is established on treatment. Options for long-term follow-up through differentiated service delivery models for a RoC established on ART should be introduced at the month three counselling session.

Consent to be called or traced if they miss an appointment should be documented in the RoC OI/ART care booklet.

Findings from this assessment should be documented in the notes section of the RoC care and treatment book.



Special considerations for readiness assessment in children and adolescents

Younger children are dependent on their caregivers for the administration of ART. It is therefore essential that these caregivers understand the importance of ART administration for the child. A very common reason for poor adherence in children is that when there are multiple caregivers, some have not been educated on the importance of taking the medication. Depending on the age of the child, involve the child in the planning of how and when they will take their medicines.

Answer the following questions:

- Is there an identified dedicated caregiver? If possible, two caregivers should be identified. If the child is regularly left in another home, try to include that caretaker in the preparation.
- What is the current disclosure status of the child? If not disclosed, a clear plan about disclosure should be made with the caregiver. Full disclosure should be achieved at the latest by the age of 10.
- Is the child able to swallow the formulation being prescribed?

For adolescents, specific psychosocial issues must be addressed when initiating ART. Determining whether transmission is vertical or sexual and exploring potential support networks is essential.

Peer adolescent treatment supporters

Peer adolescent treatment supporters both based at the facility and in the community where they can link with RoCs offer important additional counselling support for adolescents. Adolescent treatment supporters may:

1. Share lived experience of being on ART.
2. Ensure adequate treatment literacy.
3. Support disclosure.
4. Help ensure SRH needs are addressed in a non-judgemental manner.



Special considerations for pregnant and breastfeeding mothers

The content of the initial counselling session should be prioritized around: 1) the motivation for taking medication (to keep the baby negative and, in the longer term, to keep the woman healthy to care for her baby); and 2) how to take the medication. At subsequent sessions, ongoing counselling and assessment of HIV and ART knowledge must be further developed. In addition, the woman must be counselled on her monitoring schedule to make sure that her viral load is suppressed and to plan a safe delivery, as well as to plan use of the NVP, AZT and cotrimoxazole syrups that her baby will need, testing her baby and infant feeding options.

At the first visit, emphasize that this treatment is to keep her baby HIV negative and to keep her healthy to look after the baby. If the woman has concerns about life-long treatment, these should be further discussed during follow-up sessions. For now, encourage her to accept that the immediate motivation is to keep her baby negative.

Lack of disclosure is a very common reason for pregnant and breastfeeding women not to take their medication. Start to discuss options for how she might disclose to her partner.



Support from peers in PMTCT

Peers who have been through PMTCT play an important role in supporting newly diagnosed pregnant women.

Adolescent and young mother mentors may support young mothers initiating ART.

For pregnant or breastfeeding women, the following additional aspects related to prevention of mother-to-child transmission should also be explained.

Explain ways of transmission of HIV

- Explain different ways that HIV can be transmitted from a mother to her child: during pregnancy at delivery or during breastfeeding.
- Explain chances of transmission from mother to child.

With the correct follow-up on ART, there are high chances that your baby will be HIV negative.

Give brief PMTCT ART education

Finding out that you are HIV positive is a lot to deal with today, but it is important that we already speak for a moment about the health of your baby. Your baby could be HIV negative if you take the right precautions:

- 1. Start ART as soon as possible:** HIV has no cure, but there is a treatment to control HIV in your body. All pregnant women are to start this treatment as soon as possible as this gives a high chance of preventing the transmission of the virus from you to your baby. We invite you to start taking the treatment today, but it is up to you to decide if you feel ready for this.
- 2. Additional tests:** As you are pregnant, there are some additional monitoring tests that will be needed (viral load) to make sure that your baby is protected and you remain well. These dates will be written in your treatment plan.
- 3. Delivery in a health facility:** It is safest to go to a health facility for delivery and inform the staff that you are HIV positive; then the staff will be able to take all precautions to protect the baby during delivery.
- 4. Correct feeding of the baby:** After delivery, it is important to only give breast milk for the first six months if possible. After six months, other foods can be introduced, but continue breastfeeding until at least 12 months. It is also fine to continue breastfeeding for up to two years.
- 5. Correct treatment of the baby:** The baby will be given different protective syrups (NVP, AZT CTX) after birth.

Through these actions, you will protect your baby and the chances of them acquiring HIV are very small. Today we will focus on how to take the treatment correctly and we will cover other topics at later sessions. We will make a plan together to enable you to take the medication correctly.

Make a plan with the RoC on how to take ARVs and specifically ask: What are your travelling plans in the coming months (mobility issues, “Kusungirwa”, etc.)?

Make a plan for disclosure and testing of their partner.

Discuss strategies to get their partner to come for testing (invitation letter from the clinic, communication with partner, re-test both partners together) and how she may be able to disclose her status. Offer HIV self-testing as a means for the partner to test (see Page 28).

Ask them if they have any questions and explain that they are going to be booked for another counselling session after four weeks.

An additional check-in with the woman may be performed at week two in the community or through telehealth.

Aim to link the woman with **a community health worker, PMTCT “champion” or adolescent mentor mother** as well who can support them in the community with the consent of the woman.



Ask their consent to call or trace them if they miss an appointment.

Some pregnant and breastfeeding women may be more vulnerable than others and may benefit from peer support (mother mentors) or visits in the community.

You can use the screening tool (Appendix 3) to identify those women who may be more vulnerable and who may struggle with follow-up and adherence.

2.4.7 Step 4: Treatment plan

Option 1: If the RoC is both clinically and psychosocially ready, initiate ART on the same day as HTS. Cotrimoxazole and TPT should be initiated on the same day, according to the clinical guidance.

Option 2: If the RoC is clinically ready but not psychosocially ready, book the RoC for a further session in the next one to seven days, depending on what is convenient for the RoC. This may be at the facility, in the community or through telehealth. At each subsequent appointment, assess readiness and utilize counselling tools, for example, from the Job Aide. Linking the RoC with the primary counsellor, expert RoC or another peer (CATS, key population peer supporter) on ART may also address issues that may be barriers to accepting ART. If possible, aim to initiate ART within one week of the RoC testing positive.

Option 3: If the RoC is not clinically ready:

- Which conditions do I need to treat today before I start ART?
- What conditions need further investigation today?
- If CD4 is available at the first visit, RoCs with a CD4 <200 cells/mm³ or WHO Stage 3 or 4 need special attention. They are classified as having advanced disease. These RoCs need particular attention to screening for TB (urine LAM test), examination for Kaposi’s sarcoma and enquiry about any visual problems (potential CMV). These RoCs need to be screened for cryptococcal antigen with CrAg testing. For further details on the clinical management for pre-emptive treatment of cryptococcal disease, see the Zimbabwe HIV prevention, testing and treatment guidelines.

- Among people living with HIV, not yet on ART and with signs and symptoms suggesting TB, investigate for TB. If confirmed with TB, start TB treatment for two weeks before initiating ART.
- A RoC diagnosed with cryptococcal meningitis should delay initiation of ART for four to six weeks.



ART initiation checklist for the clinician

Step 1: Has HIV testing been verified with a second test, on a different sample and ideally by a different healthcare worker? This should be documented in the RoC OI/ART care booklet or electronic system.

Step 2: Does the RoC have sufficient understanding of HIV and ART, and is the RoC psychologically ready to start ART? Is the RoC aware of the red-flag symptoms and signs to report. The clinician needs to review the counsellor's notes from the preparatory sessions to ensure that there are no outstanding issues that may affect initial adherence (severe depression, denial, plans to travel). For children, does the caretaker fully understand their responsibility for providing the child's ART?

Step 3: Screen again for TB. This is essential to avoid episodes of TB IRIS and to start TPT.



Among people living with HIV not yet on ART and with signs and symptoms of TB investigate for TB first. If TB is diagnosed start TB treatment followed by ART after 2 weeks.

Step 4: Ensure that all OIs and other infections have been adequately screened for (cryptococcal disease if CD4 <200; TB; STI) and treated.

RoC diagnosed with cryptococcal meningitis should delay ART initiation for four to six weeks.

Step 5: Examine the RoC.

Step 6: Review the baseline laboratory tests – if performed – to decide on the choice of regimen.

Step 7: Choose a regimen according to the clinical guidelines for antiretroviral therapy in Zimbabwe.

Step 8: Review potential side-effects of the medication with the RoC and ensure that they know what symptoms to report to the clinic early. Be especially alert to side-effects of TDF in the elderly, diabetic or hypertensive RoC.

Step 9: If all of the above steps have been checked and the RoC is ready, initiate ART.

Step 10: Enter the RoC in the chronic ART register and/or electronic system.



2.4.8 Re-engagement in care

Definition of re-engagement

Re-engagement refers to any RoC who is presenting to HIV services who has:

- Previously tested positive but never linked to treatment
- Previously been on ART but stopped

The RoC may re-engage:

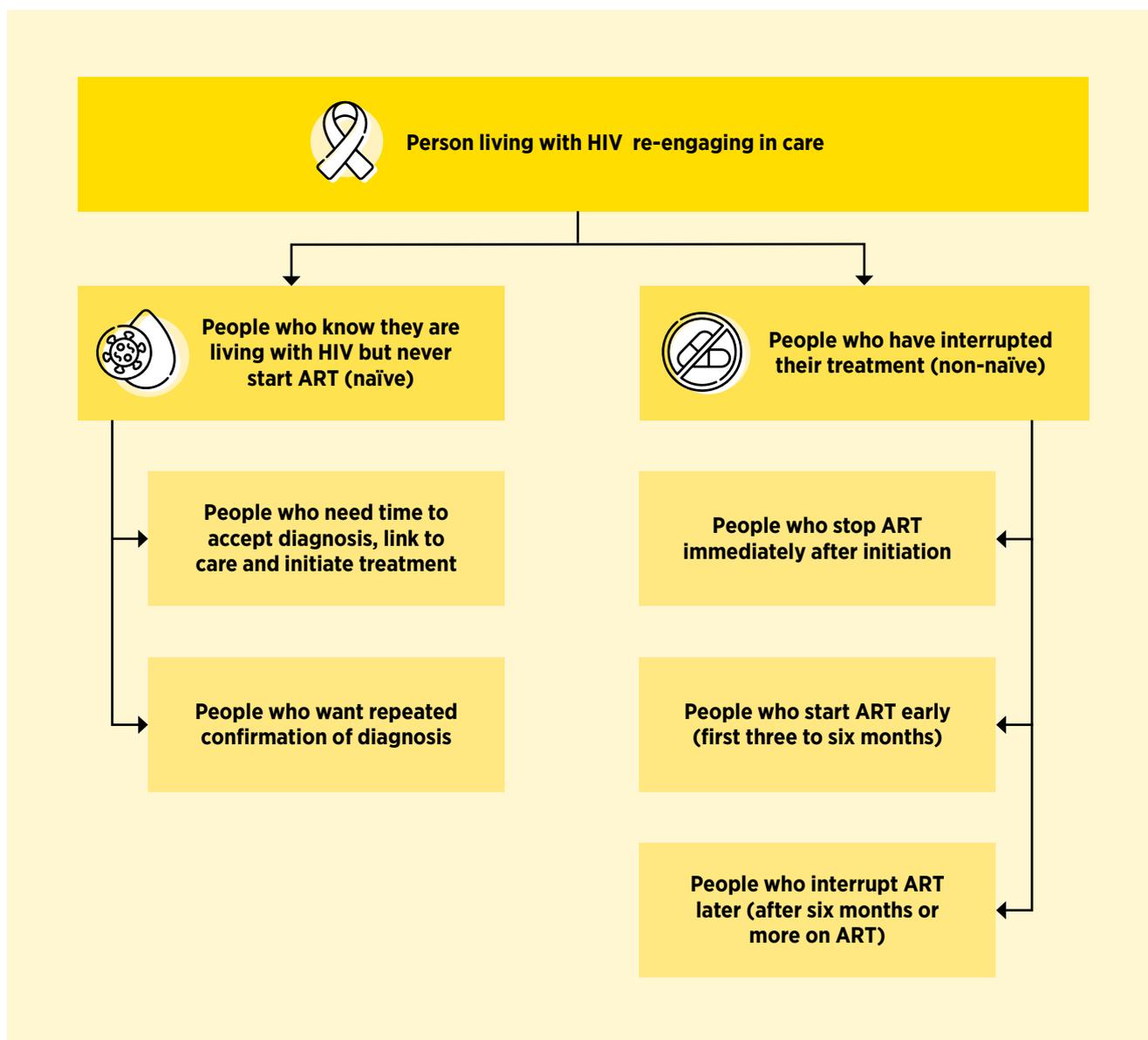
- At HIV testing sites or through HIV self-testing
- At an ART site where they are known or not known

- RoCs may be lost at any stage along the HIV cascade, from testing positive and initiating on treatment through to long-term ART (See figure 16).
- Reasons for not linking to treatment or stopping ART may include RoC factors (stigma, non-disclosure), healthcare worker related (staff attitude) and institutional factors (for example, drug stockouts, transport issues and long waiting times).
- Differentiated service delivery aims to address many of these barriers, offering a more RoC-centred approach.
- RoCs may re-engage at any entry point, at HIV testing or ART services.
- Re-engagement services should ensure that RoCs who re-engage are received with dignity, are assisted and clinically managed and receive quality psychosocial services from healthcare workers. RoCs re-engaging in care are often those struggling the most with adherence and should not be penalized by being asked to attend more frequently unless there is a clinical indication.
- To support RoCs who are re-engaging in care, a differentiated approach is proposed, depending on the duration of time that the RoC has stopped ART and on the findings of a comprehensive clinical (including CD4) and psychosocial assessment (See Figure 17).



Healthcare worker attitudes are key to supporting those returning to care and should be non-judgemental and welcoming.

Figure 16: Different types of re-engagement



Counselling for a RoC re-engaging in care should include:

- Exploring treatment literacy
- Addressing the reasons for stopping ART
- Identifying motivational factors for starting ART
- Identifying mental health issues

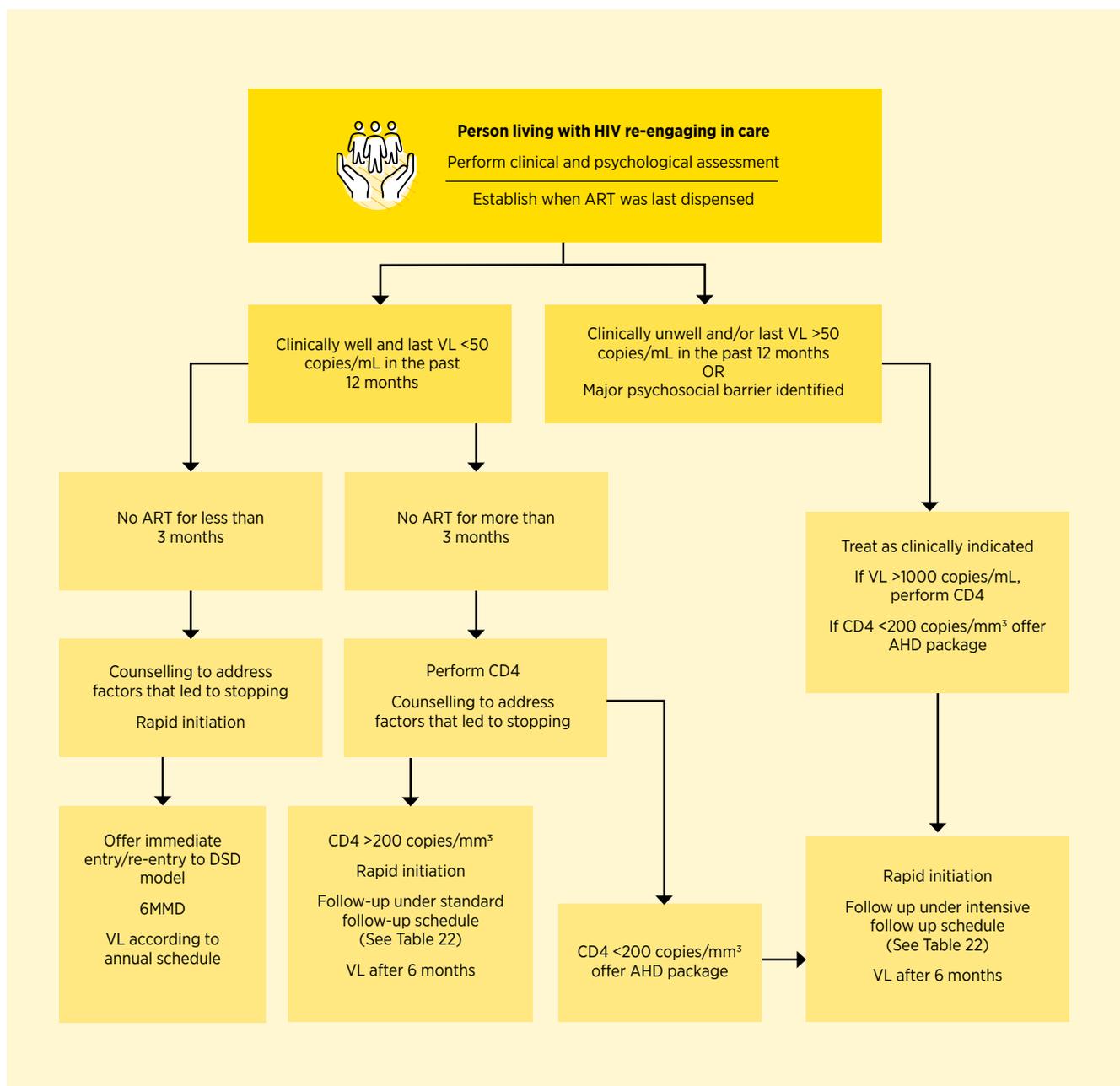
For assessment of mental health status, ask the following questions:

- Depression:
 1. During the past month, have you felt like you were losing interest or pleasure in doing things?
 2. During the past month, have you felt down, depressed or helpless?
- If RoC answers “yes” to either question, document “PHQ+” and administer SSQ14 (Appendix 4).

- Anxiety:
 1. Over the past two weeks have you felt, nervous, anxious or on edge?
 2. Over the past two weeks have you not been able to stop or control your worrying?
- If the RoC answers YES to either question, document “GAD+” – administer SSQ14.
- Screen for possible SGBV/IPV (Appendix 1).
- Identify possible substance misuse.
- Anyone presenting unwell or anyone more than three months out of care should be linked with a community cadre (VHW, CATS or key population peer supporter).

Figure 17 outlines the algorithm to be followed for RoCs re-engaging in care.

Figure 17: Algorithm for the management of a RoC re-engaging in care



M&E considerations for re-engagement

After the RoC has been brought back to care, the RoC OI/ART care booklet, chronic ART register and essential changes register should be updated to indicate that the person is back in care. Further, patient-level electronic systems, if available at the facility, should be also updated. At the end of the month, HIV monthly progress return forms should be compiled, with details of RoCs who have returned to care recorded and then updated in DHIS 2.

2.5 Differentiated ART delivery in the first year

2.5.1 Standard and intensive follow-up in the first three months on ART

Follow-up in the first three months is differentiated into:

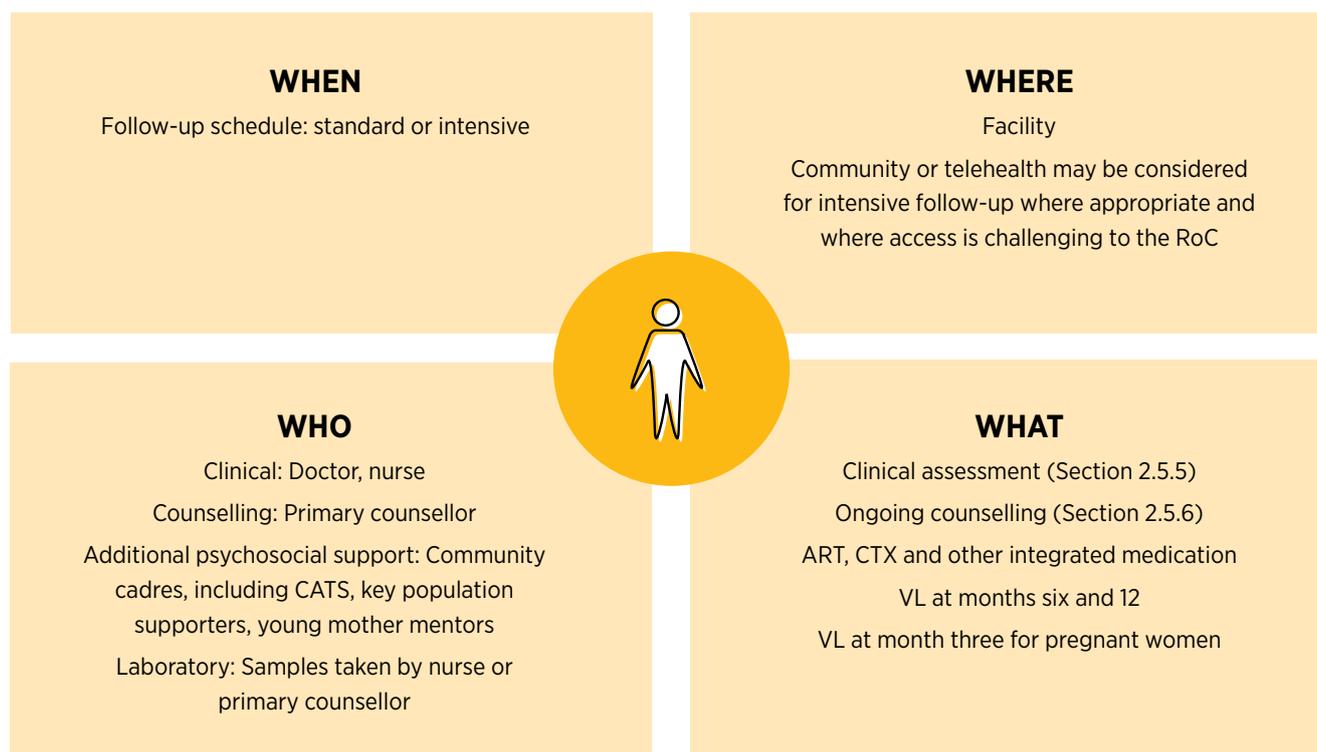
- Standard
- Intensive

Criteria for intensive follow-up are outlined in Table 19.

Table 19: Criteria for intensive follow-up

ACTIVITY	CRITERIA FOR INTENSIVE FOLLOW-UP
Clinical monitoring	Active OIs or AHD identified
Counselling	Mental health condition identified, drug or substance misuse, adolescents, pregnant or breastfeeding women, key populations
Viral load monitoring	Earlier VL at month three for pregnant and breastfeeding women Where available, use of POC VL for children, adolescents, pregnant and breastfeeding women Where POC not available, flag specimen as urgent on request form for children, adolescents, pregnant and breastfeeding women

2.5.2 Building blocks of differentiated follow-up for first year on ART



2.5.3 Clinic systems for ART follow-up during the first year

Appointment systems, triage and defaulter tracking should be used for all RoCs on ART, including during the first year.

For further details, see Section 2.6.5.



Re-engagement after tracing

Any RoC who is successfully traced should be welcomed and assessed in a non-judgemental manner.

Clinical and psychosocial assessment is needed, as per the re-engagement guidance and algorithm on Page 59.

2.5.4 Follow-up schedules for first year on ART

Tables 20, 21 and 22 summarize the clinical, counselling and laboratory follow-up for children aged up to two years, two to nine years and adolescents and adolescents.



VL Results

All VL results, if not performed through same-day POC, should be shared with both the clinic and the RoC.

An SMS message should be sent to the RoC or RoC's carer advising to attend the clinic as soon as possible if viral load is >50 copies/ml or attend at the next booked appointment if all is well.

Table 20: First year of follow-up for children aged 0-2 years

	CLINICAL	COUNSELLING*	LABORATORY
INITIATION	X	X	Baseline bloods
WK 2	X	X Where possible, a home assessment is encouraged	
MTH 1	X	X	
MTH 2	X	X	
MTH 3	X	X	
MTH 4	X	X	
MTH 5	X	X	
MTH 6	X	X	VL Where possible, use POC VL Where POC not available, flag VL request as urgent
MTH 7	X	X	
MTH 8	X	X	
MTH 9	X	X	
MTH 10	X	X	
MTH 11	X	X	
MTH 12	X	X	VL Where possible, use POC VL Where POC not available, flag VL request as urgent
ONGOING FOLLOW-UP	Monthly until 2 years		Annual VL Where possible, use POC VL Where POC not available, flag VL request as urgent

*If particular psychosocial challenges are identified, consider further community-based support for children and caregivers.

Follow-up for first 12 months for children aged 0-2 years

Service delivery model:

- Children aged up to two years whose carers choose a facility model should be seen in primary care, FCH or paediatric clinic, depending on the level of the facility.
- All children can be seen in outreach models where a healthcare worker attends regularly and where accurate weighing is feasible.
- When the carer is also living with HIV, the caregiver and children should be booked on the same day.
- The caregiver should:
 - Ideally receive their ART from FCH. The caregiver should still be offered 3-6MMD if they are established on treatment

OR

- If they have chosen to continue in their previous DSD model during the post-partum period, they may continue, ensuring that the child is brought in according to the schedule outlined in Table 20.
- Peer support should be provided to caregivers of children living with HIV, but children are seen clinically at each visit.
- Where resources allow, a home visit is encouraged at one of the early counselling sessions. Where challenges are identified, additional community visits by community cadres or CATS can be organized.

Table 21: First year of follow-up for children 2-9 years

	CLINICAL	COUNSELLING*	LABORATORY
Initiation	X	X	Baseline bloods
Week 2	X	X Where possible, a home assessment is encouraged	
Month 1	X	X	
Month 2	X	X Facility or community	
Month 3	X	X	
Month 4	X	X	
Month 5	X	X	
Month 6	X Give 3MMD	X	VL Where possible, use POC VL Where POC not available, flag VL request as urgent
Month 9	X Give 3MMD	X	
Month 12	X	X	VL Where possible, use POC VL Where POC not available, flag VL request as urgent
Ongoing follow-up	See for clinical visit every four months with four-month refill		Annual VL Where possible, use POC VL Where POC not available, flag VL request as urgent

*If particular psychosocial challenges are identified, consider further community-based support for children and caregivers.

Follow-up for first 12 months for children aged 2-9 years

Service delivery model:

- Children aged two to five years whose carers choose a facility model should be seen in primary care, FCH or paediatric clinic, depending on the level of the facility.
- Children aged six years or older whose carers choose a facility model should be seen in primary care or an OI clinic.
- All children can be seen in outreach models where a healthcare worker attends regularly and where accurate weighing is feasible.
- When the caregiver is also living with HIV, caregivers and children should be booked on the same day.
- Caregivers should:
 - Ideally receive their ART from FCH. The caregiver should still be offered 3-6MMD if they are established on treatment

OR

- If they have chosen to continue in their previous DSD model during the post-partum period, they may continue, ensuring that the child is brought in according to the schedule outlined in Table 21.
- Peer support should be provided to caregivers of children living with HIV, but children are seen clinically at each visit.
- Where resources allow, a home visit is encouraged as one of the early counselling sessions. Where challenges are identified, additional community visits by community cadres or CATS can be organized.
- If particular psychosocial challenges are identified, consider further community-based support for children and caregivers.

Table 22: Follow-up for first 12 months for adolescents and adults

	CLINICAL		COUNSELLING*		LABORATORY
	Standard	Intensive: Active OIs AHD	Standard	Intensive Adolescents, pregnant and breastfeeding women, key populations	
INITIATION	X	X	X	X	Baseline bloods
WK 2		X May be offered as community or telehealth		X May be offered as community or telehealth May be delivered by CATs or key population supporter For adolescents, a home visit is encouraged, where feasible	
MTH 1	X	X	X	X	
MTH 2		X May be offered as community or telehealth		X May be offered as community or telehealth May be delivered by CATs or key population supporter	
MTH 3	X Give 3MMD	X	X	X	VL for pregnant and breastfeeding women (follow specific VL schedule, Section 2.5.7) Where possible, use POC VL Where POC not available, flag VL request as urgent
MTH 6	X Give 3MMD	X	X	X	VL for all (except pregnant and breastfeeding women) Where possible, use POC VL for adolescents Where POC not available, flag VL request as urgent
MTH 9	X Give 3MMD	X	X	X	
MTH 12	X	X	X	X	VL for all Where possible, use POC VL for adolescents and pregnant or breastfeeding women Where POC not available, flag VL request as urgent
ONGOING FOLLOW-UP	If established on treatment (VL in past six mths <50 copies/ml) Offer DSD for established-on-treatment model Clinical and refill frequency according to Table 24, Page 68 If not established on treatment, follow viral load algorithm on Page 100				Annual VL Six-monthly VL for pregnant and breastfeeding women until cessation of breastfeeding Where possible, use POC VL for adolescents, pregnant and breastfeeding women Where POC not available, flag VL request as urgent

*If particular psychosocial challenges are identified, consider further community-based support for RoCs.

2.5.5 Follow-up clinical visits in first year

Use the columns of the RoC care OI/ART care booklet to guide the consultation questions:

- Any new symptoms or signs to report
- Weight loss or weight gain
- Pregnancy status or contraceptive needs
- Ask TB screening questions
- Any side-effects from medication (ART, CTX, TPT)
- Check adherence to ART, CTX, TPT and other integrated medications
- Assess treatment literacy, understanding of ART
- Counselling on what viral load is and when it is taken
- Introduce DSD for established-on-ART options by month three
- For children, assess weight and adjust dose of ART as needed



It is essential that RoCs know that they should return to the clinic at any time that they develop red-flag symptoms or signs.

- Symptoms and signs of TB: cough, fever, weight loss
- Diarrhoea or vomiting
- Ongoing or severe headache
- Persistent fever
- Symptoms or signs related to possible side-effects of medication
- Suicidal ideation

2.5.6 Follow-up counselling visits in the first year

- After initiation, adult RoCs should see the counsellor at months one, three and six.
- Adolescents, pregnant and breastfeeding women and key populations should be offered additional counselling interventions at week two and month two. This intervention may be at the facility or, where access is a challenge, in the community or through telehealth.
- These sessions **could be done as a group if a few RoCs with the same duration on ART are attending on the same day or as individuals.**
- The RoC should see the counsellor before seeing the clinician, and the counsellor should document their findings in the notes section of the RoC OI/ART care booklet. The counsellor should be guided by the RoC about the specific challenges they would like to discuss, but it is also important that some key issues are covered

for all by the time they have been on ART for six months. These topics include:

- Planning for travel
- Family planning and planning your family
- Understanding treatment failure and interpretation of viral load results. This must be reinforced prior to the viral load being taken at month six (month three for pregnant and breastfeeding women). The RoC should be clear that having an undetectable viral load does not mean that they are cured.
- Understanding the need for lifelong ART related to cultural and religious beliefs
- Understanding and choosing a refill option for long-term follow-up. This should be introduced by month three, but a decision should be made when the first viral load result is reviewed.



Special considerations for follow-up counselling for children and adolescents

Children aged up to two years should be seen monthly, as in Table 20, pg 62.

Children aged two to nine years and their caregivers should be seen according to Table 21, pg 63.

Evidence suggests that older children who do not know and understand their HIV status have worse adherence and retention.

Disclosure is a process:

- Partial disclosure (where the child understands what is going on in their body but does not name the disease) should start as soon as the child is able to understand simple storylines and be achieved by age six.
- Full disclosure (where the child also names the disease) should be achieved by the age of 10, adapting to the cognitive development of the child. Although it is encouraged that the caregiver discloses, the healthcare worker must proactively initiate and guide the process. If full disclosure has not happened by the age of 10, this case must be taken seriously and a plan made with the caregiver.

To indicate the stage of disclosure, use the symbols below on the first page of both the RoC OI/ART care booklet and the outpatient notebook.

Figure 18: Disclosure stages

- Not disclosed
- ◐ Partial Disclosure
- Full disclosure



Special considerations for follow-up counselling for pregnant and breastfeeding women

Pregnant and breastfeeding women may have additional counselling input at week two and month two.

This may be offered at the facility or provided in the community and may engage both the primary counsellor and young mother mentors.

Additional topics related to their stage of PMTCT should be incorporated into the counselling content:

- Why they are having additional VL testing
- Planning a facility-based delivery
- NVP and /or AZT use
- CTX use
- NAT testing
- Infant feeding advice
- Before delivery and postnatally, discussing family planning options

There are also some key **transition points in the journey of PMTCT** where key messages should be emphasized:

- Planning where the woman will deliver or if she will travel away from the facility. Consideration of cultural practices, such as Kusungirwa, must be discussed and, if needed, extended drug supplies given or referral made to another ART site.
- Exclusive breastfeeding for six months is the recommended infant feeding option. When the woman is seen post-delivery, it is very important to explain that the medication she is taking is making her breast milk safe. The chances of HIV being transmitted to her baby if she takes the medication daily are very low and so her motivation for taking the medicine is still to keep her baby negative.
- When she is about to stop breastfeeding is an important stage as, prior to this, she has the additional motivation for treatment for keeping the baby negative. Now the treatment is for her and she must understand that she needs to take it throughout her life to remain healthy.

2.5.7 Differentiated service delivery for viral load management

Viral load results can be categorized into three groups:

- Undetectable ≤ 50 copies/ml
- Low-level viraemia $>50 - \leq 1000$ copies/ml
- Unsuppressed >1000 copies/ml

This section describes DSD and other programmatic strategies for:

- Taking VL
- Result delivery and tracing



Taking viral load

For children, adolescents, adults and key populations, viral load should be taken at months six and 12 and then annually.

Pregnant and breastfeeding women have a differentiated VL schedule.

Women already on ART should have a VL at first ANC, at 34-36 weeks and then six monthly.

Women newly initiated on ART should have a VL after three months, at 34-36 weeks, three months after delivery and then six monthly until cessation of breastfeeding.

VL for pregnant and breastfeeding women should be taken in FCH during antenatal, postnatal and follow-up of a baby exposed to HIV.

Viral load for pregnant and breastfeeding women should, where possible, use POC VL

If POC VL is not available, flag the VL request as urgent.

Priority populations where POC VL should be used include:

- Children and adolescents
- Pregnant and breastfeeding women
- RoC presenting with clinical failure or advanced HIV disease on treatment
- RoC having a repeat VL after enhanced adherence

Demand creation

Viral load key messages should be shared with RoCs during the counselling sessions in the first six months on treatment and reiterated when VL is taken and when VL results are given.

RoCs should know:

- When they should have their VL taken and, if in a priority population, why they should have access to POC VL
- What undetectable, low-level viraemia and unsuppressed mean
- What action is needed for low-level viraemia
- What action is needed for an unsuppressed viral load

Table 23: Building blocks for taking VL

	WHEN	WHERE	WHO	WHAT	LINK WITH DSD FOR ROCS ESTABLISHED-ON-TREATMENT MODEL
TAKING VL	<p>General population and children: month six after initiation, month 12 after initiation, and annually</p> <p>Pregnant and breastfeeding women newly initiated on ART: month three after initiation; women already on ART at first ANC visit</p> <p>All women at gestational weeks 34-36: three months after delivery and then six monthly</p>	<p>Facility</p> <p>Out of facility</p>	<p>Nurse</p> <p>Primary counsellor (DBS)</p>	<p>Plasma or DBS sample</p> <p>POC, where available, for priority groups*</p> <p>Centralized testing (flag priority groups as urgent on request form)</p>	<p>In group models, align members' annual VLs</p>

Priority groups include children and adolescents, pregnant and breastfeeding women, and RoCs with advanced HIV disease or who need a repeat VL after previous low-level viraemia or unsuppressed VL.

- When VL should be repeated after a test shows VL at >50 copies/ml and the preferential use of POC VL
- When a new regimen should be considered if the second VL is unsuppressed
- For RoCs in a group model, aim to collect their annual viral loads on the same day. This should improve uptake and allow the group to share results and support any group member who is not suppressed.

Clinic systems to identify who needs a viral load

- Make use of available pre-identification system (appointment book or automatic list generated from the electronic system) to identify which RoCs need a VL blood draw on a given day.
- The electronic system may be used to generate SMS reminders for the RoC's annual review and VL.
- Documentation of the date of the next VL should also be made in the RoC-held booklet.
- For adults, where the clinical review is annual, this should always align with taking the VL.

Viral load result delivery

All viral load test results that are carried out in a centralized laboratory should be sent by SMS and hard copy to:

- The clinic where the VL was taken – this should be the full VL result with the numerical value
- The RoC – the message will indicate if all is well and the RoC should continue in DSD for those established on ART or if the RoC should attend the facility as soon as possible

Clinics should also contact RoCs with a VL >50 copies/ml or link them with a community cadre, including CATS or a key population peer supporter to help navigate them to attend a clinic for an assessment and support the EAC schedule.

2.6 Differentiated service delivery for RoCs established on ART

2.6.1 Definition of RoC established on ART

A RoC (adult, child over two years, adolescent, pregnant or breastfeeding woman, or member of a key population) established on ART (any treatment line) is defined as someone who:

- Has no current OIs
- Has good understanding of lifelong adherence
- Is at least six months on their current regimen
- Has a VL of <50 copies/ml in the past six months*

*Pregnant and breastfeeding women must have a VL <50 copies/ml in the past three months and be attending ANC or PNC and follow-up for a baby exposed to HIV.

Before entering a DSD model for a RoC established on ART, ensure that integration priorities are addressed (see Section 2.7).

- Has the RoC completed or been assessed for TPT? If TPT is indicated, TPT can be integrated into their DSD for HIV treatment model.
- Have family planning needs been met?
- Has the RoC been screened for hypertension, diabetes, depression and anxiety according to the recommendation and treatment offered where indicated?

2.6.2 Frequency of clinical and refill visits for RoCs established on ART

Table 24 outlines the frequency of clinical and refill visits according to age and specific population.

Table 24: Frequency of clinical and refill visits by age and specific population

	FREQUENCY CLINICAL VISITS	REFILL DURATION
0-2 years (not established on ART)	Monthly	1 month
2-9 years	4 monthly	4 months
10-19 years	4 monthly	4 months
20-24 years	6 monthly	*3 or 6 months with preference for 6
Adults	Annual	*3 or 6 months with preference for 6
Pregnant and breastfeeding (see Section 2.9.4 for further detail)	6 monthly In addition to HIV clinical visit, pregnant women must attend <ul style="list-style-type: none"> • 8 ANC contact visits • Attend monthly postnatally for follow-up of baby exposed to HIV 	*3 or 6 months with preference for 6 months Pregnant women, if established on treatment, can continue to receive 6MMD but must also attend <ul style="list-style-type: none"> • 8 ANC contacts • Attend monthly for follow-up of baby exposed to HIV
Key populations	Annual	*3 or 6 months with preference for 6

*Group models should offer the choice of receiving three- or six-month medication refills. Where they receive six-month refills, they may choose to meet more frequently for social reasons and peer support. Individual models based at the facility or out of facility should offer six-month medication refills.

2.6.3 What happens at a clinical visit?

A clinical visit is a scheduled appointment where the clinician makes a thorough assessment and requests or reviews monitoring blood tests. An examination couch should be available to perform this clinical review. According to the follow-up protocol, they may also be reviewed by the counsellor.

In group models, the clinical visit should be scheduled on the same date for all group members. Each recipient of care is seen individually for their clinical review, but by coming together as a group, the clinician may assess group dynamics.

A routine clinical visit should take 10-15 minutes with the clinician.

For those RoCs with problems or treatment failure, more time should be allocated.

A RoC should aim to spend no more than two to three hours within the facility from the time of entry to the time of departure.

At each HIV clinical consultation, the following points should be addressed. Be guided by and complete the columns of the RoC OI/ART care booklet:

Is the weight increasing or stable?

- If the weight is decreasing, WHY? Screen for possible TB; assess the nutritional status. Are there other signs of possible treatment failure?
- What family planning method is being used and is it integrated into the RoC DSD for HIV treatment model? Is the RoC now pregnant and are ANC and PMTCT interventions needed? Are condoms also being used?
- Screen for TB. Is TB preventive therapy due? If so, how will it be integrated into the RoC DSD for HIV treatment model.
- Is the RoC still needing cotrimoxazole?
- If there is evidence of advanced HIV disease, has the RoC been screened for CrAg?
- Screen for STIs.
- Take the RoC's blood pressure. If elevated, follow the guidance on how to integrate the management of hypertension into the RoC DSD for HIV treatment model.
- Screen for mental health issues using the PHQ2 and GAD2 questions below:

PHQ2: Ask:

1. During the past month, have you felt like you were losing interest or pleasure in doing things?
2. During the past month, have you felt down, depressed or helpless?

If the RoC answers YES to either question, document "PHQ+" for PHQ positive and **THEN** administer SSQ14.

GAD2: Ask:

1. Over the past two weeks, have you felt nervous, anxious or on edge?
2. Over the past two weeks, have you not been able to stop or control worrying?

If the RoC answers YES to either question, document "GAD+" for GAD positive and **THEN** administer SSQ14.

- Are there any other complaints today?
- Are there any side-effects of the medication being prescribed (swollen ankles or face, oliguria, polyuria, haematuria for TDF; pallor, dizziness or breathlessness with AZT)?
- Check adherence to medications (not just the ART).
- Are there any blood results viral load, creatinine, etc., that should be documented and reviewed today? If YES, have they been acted on?
 - Is the viral load >50 copies/ml? If YES, the RoC needs to start enhanced adherence or switching regimens should be considered (see Section 2.8.1).
 - If the RoC is on TDF and creatinine monitoring is available, is the last creatinine clearance more than 50ml/min? If NO, discuss action with the nurse mentor or doctor.
- Are there any blood tests that should be ordered today?
 - Routine viral load should be checked at months six and 12 and then yearly on ART. Remember to use POC VL where possible for priority populations (children, adolescents, pregnant and breastfeeding women). If POC is not available, flag the laboratory request form for these populations as urgent.
 - Pregnant and breastfeeding women should have their VL checked three months after initiating ART, again at 36-38 weeks and then six-monthly until cessation of breastfeeding. Those women already on ART should have their VL checked at first ANC and then follow the same schedule.
 - If on TDF, check creatinine yearly if available. If on AZT, check Hb after six to eight weeks; thereafter, check Hb if the RoC presents with symptoms of anaemia.
- Perform cervical cancer screening according to the frequency indicated in the national cervical cancer guidance and Zimbabwe clinical guidelines for HIV prevention and treatment.
- Prescribe medications (cotrimoxazole and ART) needed and complete documentation for subsequent ART refills. Whichever refill option is chosen, complete the RoC OI/ART care booklet and RoC notebook.
- Complete the chronic ART register and appointment diary (this may be more efficiently done at the end of a session, referring back to the RoC care and treatment book) and/or send or enter the information into the electronic system.

2.6.4 What happens at a refill visit?

A **refill visit** is a scheduled appointment where the RoC has a pre-filled prescription and can collect the medication through a range of refill options (see Section 2.6.6). In all refill options, the documentation is carried out in the RoC OI/ART care booklet and RoC notebook. This documentation is carried out by the consulting healthcare worker or by whoever is dispensing ART from the pharmacy or distributing ART in the group or out-of-facility models. The specific ART refill models are described in detail in the standard operating procedures (SOPs) on Pages 74-86.

For group or community ART refill options, ART can be pre-packed (medication clearly named and labelled and ideally placed in individual RoC-named bags) in order to allow for distribution by a community cadre or RoC group representative.

It is important to emphasize that if at any point the RoC has additional clinical needs, they can be seen by the clinician at any time and appropriate follow-up organized.

RoCs must be educated on what symptoms and signs they should report in between appointments. Red-flag symptoms and signs include:

- Symptoms and signs of TB: cough, fever, weight loss
- Diarrhoea or vomiting
- Ongoing or severe headache
- Persistent fever
- Symptoms or signs related to possible side-effects of medication
- Suicidal ideation

2.6.5 Clinic systems for all differentiated service delivery models for RoCs established on ART

Appointment systems

Appointment systems are needed to:

- Know which and how many RoCs are attending on a given day
- Know what services they are attending for, for example, clinical or refill visit, VL or EID, enhanced counselling session and document an appropriate code under the “purpose of visit” column
- Identify which RoCs have not attended to trigger the defaulter tracing algorithm

The ministry paper-based appointment diary should be used and, in sites with electronic systems, this may be used to generate a list of RoCs attending and identify the purpose of the visit.

The diary should be used for all RoCs on ART (children, adolescents, pregnant and breastfeeding women, key populations) and for infants exposed to HIV who are attending for follow-up.

The electronic system may also be used to generate SMS appointment reminders, in particular for RoCs' annual review and viral load appointment.

Clinics must also provide services to walk-in RoCs who attend with specific problems outside their scheduled appointment dates.

Triage

- Clinics should have systems in place to identify what RoCs are attending for (clinical visit, refill visit, laboratory investigations, services for RoCs not established on treatment, high viral load, AHD).
- The paper-based appointment diary or the electronic system should be used to identify what RoCs are attending for.
- RoCs needing blood tests should be identified and directed to the allocated member of staff performing tests on that day.
- Where a RoC needs to see both a counsellor and clinician on the same day, they should see the counsellor first.
- Those attending as unscheduled visits should be identified and anyone presenting with danger or red-flag signs triaged for rapid review.

Defaulter tracing

When a RoC does not attend for either their scheduled appointment (clinical or refill), the defaulter tracking system (Figure 19) should be triggered.

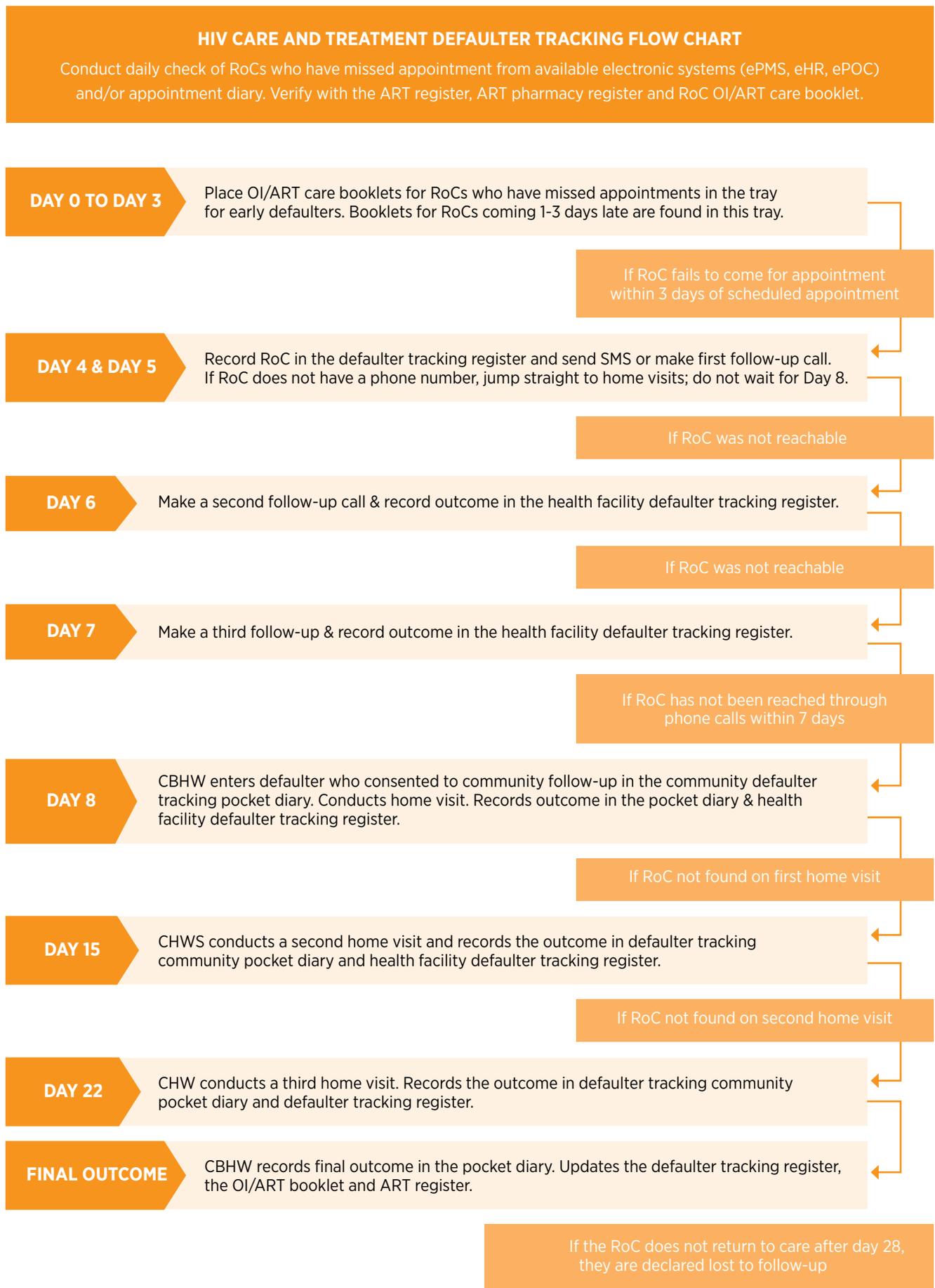


Re-engagement after tracing

Any RoC who is successfully traced should be welcomed and assessed in a non-judgemental manner.

Clinical and psychosocial assessment is needed, following the re-engagement guidance and algorithm in Section 2.4.8.

Figure 19: Standard operating procedure for defaulter tracking



2.6.6 Differentiated service delivery models for RoCs established on ART

All DSD models for RoCs established on ART can be categorized into four main models:

- **Group models managed by healthcare workers**
- **Group models managed by RoCs**
- **Individual models based at a facility**
- **Individual models not based at a facility**

Table 25 outlines how the common DSD for HIV treatment models available in Zimbabwe may be categorized into these four core models.

Pages 74-86 describe the standard operating procedures for each of these four core models.

Table 25: Categorization of DSD for HIV treatment models for RoCs established on ART

GROUP MODELS MANAGED BY HEALTHCARE WORKERS	GROUP MODELS MANAGED BY ROC	INDIVIDUAL MODELS BASED AT A FACILITY	INDIVIDUAL MODELS NOT BASED AT FACILITY
Clubs Adapted: Carer and child clubs Adolescent adherence clubs Youth club Mberekos clubs (pregnant and breastfeeding women) Key population-led clubs	Community ART refill groups (CARGS)	Fast-track	Mobile outreach by HCW Health posts ART delivery by community cadre, including CATS and key population supporter Drop-in centre: KPs House of Smiles (for those of no fixed abode) O'Malayitsha model for mobile populations

2.6.7 Which DSD for HIV treatment models are for which population?

The four DSD for HIV treatment models can be used in their core form or adapted to a specific population.

Pages 74-86 outline the four core SOPs for DSD for HIV treatment models and include a descriptive table of how the core models may be adapted for specific populations.

Table 26 outlines which of the four models can be used according to age and specific population.



Children and adolescents need more frequent clinical assessments than adults. For school-going children, these visits should align with the school term.

Therefore, CARGs and fast-track are not appropriate models for children and adolescents as the child needs to have a clinical review at a health facility every four months.

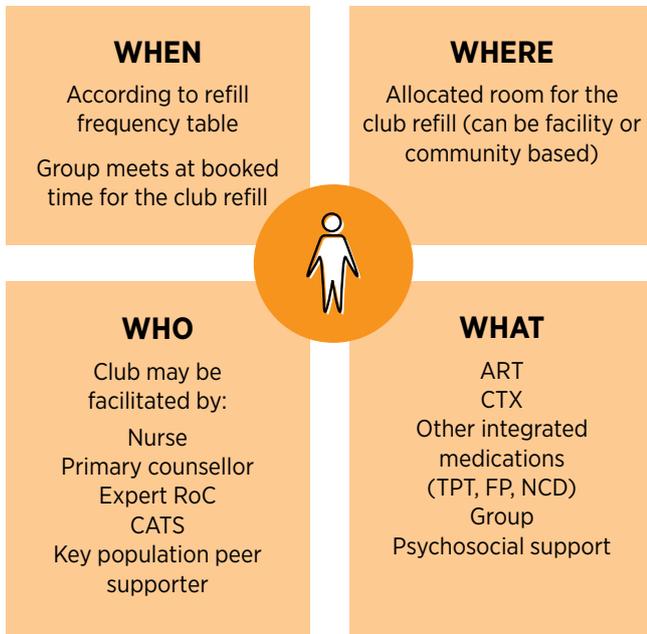
The preferred model of choice is the carer and child group model.

Table 26: Choice of DSD model by population

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Frequency of clinical visits	Monthly	4 monthly	4 monthly	4 monthly	6 monthly	Annually	6 monthly	Annually
Duration of ART refill	Monthly	4 monthly	4 monthly	4 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly
Group model led by healthcare worker. Club	Adapted carer and child club			Adapted adolescent adherence club Adapted carer club and young adolescent club			Adapted Mbereko groups for pregnant and breastfeeding mothers and their infants exposed to HIV (including specific young mothers' groups)	Adapted club for key population groups
Group model led by RoC CARGS					Adapted CATS led CARG if 3-monthly refills		Choice of woman to remain in existing CARG	Adapted key population supporter-led CARG
Individual model based at facility Fast-track					If 3-monthly refills		If 3-monthly refills	
Individual model not based at facility Mobile outreach Health post Community health worker, Trained peer (e.g., CATS, key population) delivery Drop-in centres	Where model provided by trained healthcare worker and if accurate weighing possible			Where model provided by trained healthcare worker and if accurate weighing possible	Where model provided by trained healthcare worker		Choice of woman to remain in existing out-of-facility model	Adapted key population drop-in centre with integrated key population-specific services Key population peer delivery

Standard SOP applies
 Adapted SOP applies
 Model not suitable for this population

2.6.8 STANDARD OPERATING PROCEDURE FOR GROUP MODELS MANAGED BY HEALTHCARE WORKERS



What preparation is needed for this model?

- Healthcare workers should be trained on the model SOPs and completion of documentation for the RoC OI/ART care booklet.
- Where pre-packing is required, there should be agreement, with staff dispensing ART to pack and label ART and other integrated medications ready for distribution at the club meeting. Pre-packing of medication will facilitate groups being led by counsellors, expert RoCs, CATS or key population peer supporters.
- A room or other location should be assigned and defined booking times agreed for the club meetings. These may be after working hours or at weekends.
- The group meeting can take 30-60 minutes depending on the activities and group-led discussions.

How are the groups formed?

- Groups should be made up of between 10 and 20 RoCs.
- A designated healthcare worker should be allocated to coordinate group formation as RoCs become established on ART.
- If there is a pre-existing support group, forming a club from the same group should be facilitated.
- The list of group members should be kept in the facility-held club register.
- Each group can be given a number, which can be indicated on the front of the RoC care and treatment booklet and in the RoC-held notebook.

This model is commonly known as “clubs”.

- Adult clubs are typically more popular in high-volume clinics in urban areas.
- Adolescent clubs may be implemented in both urban and rural settings.
- Clubs can be implemented for children and their carers before they become established on ART and where every visit is both a clinical and refill visit every four months.
- Adult clubs should have the option of receiving three- or six-monthly ART refills. If six-monthly, the group may choose to meet in between the refill for peer support.
- In clubs, align the annual clinical and VL visits of group members.
- Align the screening of club members for TB and initiation of TPT.

Which populations can be offered clubs?

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Frequency of clinical visits	Monthly	4 monthly	4 monthly	4 monthly	6 monthly	Annually	6 monthly	Annually
Duration of ART refill	Monthly	4 monthly	4 monthly	4 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly
Group model led by healthcare worker. Club	Adapted carer and child club			Adapted adolescent adherence club Adapted carer club and young adolescent club			Adapted Mbereko groups for pregnant and breastfeeding mothers and their infants exposed to HIV (including specific young mothers' groups)	Adapted club for key population groups



Standard SOP applies

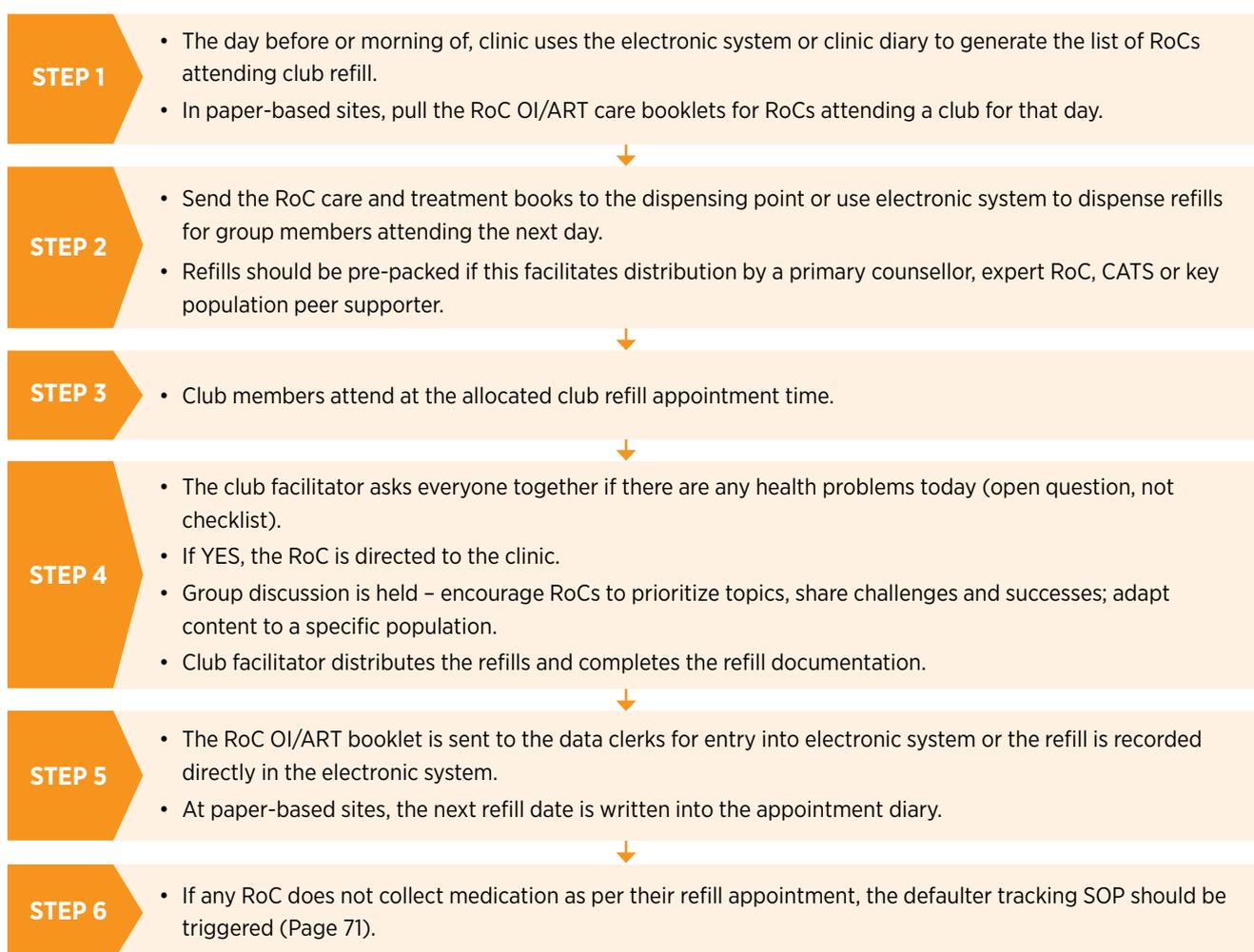


Adapted SOP applies



Model not suitable for this population

What happens on the day of the refill?

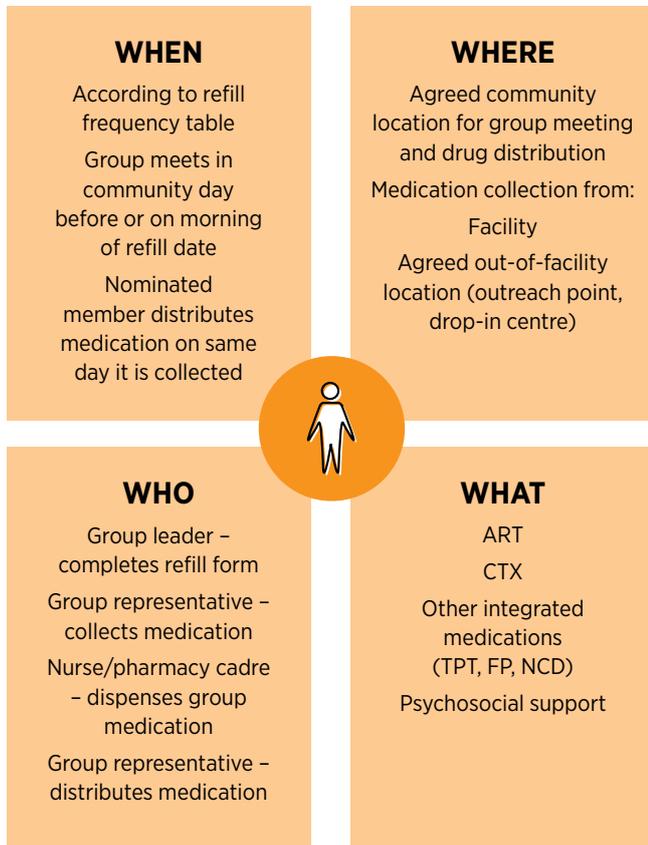


Adaptations for specific populations

	CLUB NAME	WHEN (CLINICAL)	WHEN (REFILL)	WHERE	WHO	ADDITIONAL WHAT
Children 0-2	Caregiver and child Mother and child booked together in the club	Monthly	Monthly for child 3-6MMD for mother	FCH	Nurse	Disclosure counselling Childhood immunizations Growth monitoring Nutrition advice
Children 2-5	Caregiver and child Mother and child booked together in the club	4 monthly	4 monthly for child 4MMD for mother	FCH	Nurse	Disclosure counselling Childhood immunizations Growth monitoring Nutrition advice
Children 5-9	Caregiver and child Mother and child booked together in the club	4 monthly Weekends, after school, holidays	4 monthly for child 4MMD for mother	OI clinic	Nurse	Disclosure counselling Childhood immunizations Growth monitoring Nutrition advice
Adolescents	Adolescent adherence club	4 monthly Weekends, after school, holidays	4 monthly	OI clinic or adolescent health corner	Nurse CATs	Form group according to age Adapted counselling Integrated SRH services Mental health support Adapted counselling for transitioning
Young adults	Adapted youth club	6 monthly	6 monthly (can meet 3 monthly for social interaction)	OI clinic or youth venue	Nurse CATs	Adapted counselling Integrated SRH services Mental health support Transition to adult care
Pregnant women	Mberekho group for pregnant women Including young mother clubs	6 monthly PLUS 8 ANC contacts	6 monthly	OI clinic or ANC	Nurse Midwife Young mother mentor	Remain in previous club OR Transfer to pregnant mothers or young mother club at ANC Counselling related to PMTCT Additional VL
Breastfeeding women	Mberekho postpartum groups Mother and baby exposed to HIV booked together in the club	6 monthly PLUS Follow-up of baby exposed to HIV	6 monthly	OI clinic or PNC	Nurse Midwife Young mother mentor	Remain in previous club OR Transfer to postpartum club Counselling related to PMTCT Additional VL FP and SRH services Exposed infant care (prophylaxis, EID, nutrition, vaccination)
Key populations	Key population clubs	Annual	6 monthly	Facility Drop-in centre	Nurse Counsellor Expert key population peer	Adapted counselling Integrate additional medical needs (Section 2.9.5)



2.6.9 STANDARD OPERATING PROCEDURE FOR GROUPS MODELS MANAGED BY RoCs



This refill option is known as community ART refill groups (CARGS)

- CARGS are often most relevant to reduce the burden on RoCs in hard-to-reach rural areas where distance and transport costs to the clinics are major barriers.
- CARGs may receive three- or six-monthly refills according to their preference. If six-monthly is chosen, the group can also meet in the community at additional times for psychosocial support.
- Until children are on adult doses, they need to be seen more frequently. It has also been found to improve attendance if visits are scheduled to coincide with school term breaks. Hence, it is recommended that children and adolescents dependant on a carer are seen in a group model managed by healthcare workers (see Section 2.6.8).
- In group models, RoCs should have their annual clinical visit and VL aligned

What preparation is needed for this model?

- Healthcare workers should be trained on the model, completion of the RoC OI/ART care booklet, the DSD register and the community ART refill form.
- Healthcare workers should receive training on how to educate the group leaders. The expert RoC training curriculum may be used to support this.
- To provide additional accountability within the community, sensitization meetings on the model should be carried out with community leaders and with existing CBOs and people living with HIV support groups.
- The additional M&E tools (CARG refill form) and a file to keep completed refill forms should be provided.

How are the groups formed?

Groups should be made up of between four and 12 RoCs.

- Ideally groups are self-formed from existing support groups or through RoC who know each other in each geographical area.
- It is also important for a nominated member of the clinic team to facilitate group formation
- After the initial group formation, new RoCs being identified as established on ART and who are from an area where there is a CARG, with their permission, may also be introduced to the group.
- Once formed, each group should be assigned a group number. The list of group members with their contact details should be kept in the CARG register

Selection and training of the group leader

- Each group should select a group leader. The group leader must have basic treatment literacy skills and be able to complete the group refill form.
- Training of the group leaders is the responsibility of the facility staff. If there are several new groups, group leaders may be trained together. However, it is often useful to involve all group members in the CARG induction. This ensures that all group members understand the system, but the group leader holds responsibility for ensuring that the group meeting happens and the refill form is completed.

Topics to be covered:

- HIV and ART treatment literacy, including red-flag and danger signs and viral load key messages
- The refill schedule
- How to complete the CARG refill form (TB screening, picking up danger signs)

Which populations can be offered CARGs?

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Frequency of clinical visits	Monthly	4 monthly	4 monthly	4 monthly	6 monthly	Annually	6 monthly	Annually
Duration of ART refill	Monthly	4 monthly	4 monthly	4 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly
Group model led by RoC CARGS					Adapted CATS led CARG if 3-monthly refills		Choice of woman to remain in existing CARG	Adapted key population supporter-led CARG



Standard SOP applies



Adapted SOP applies

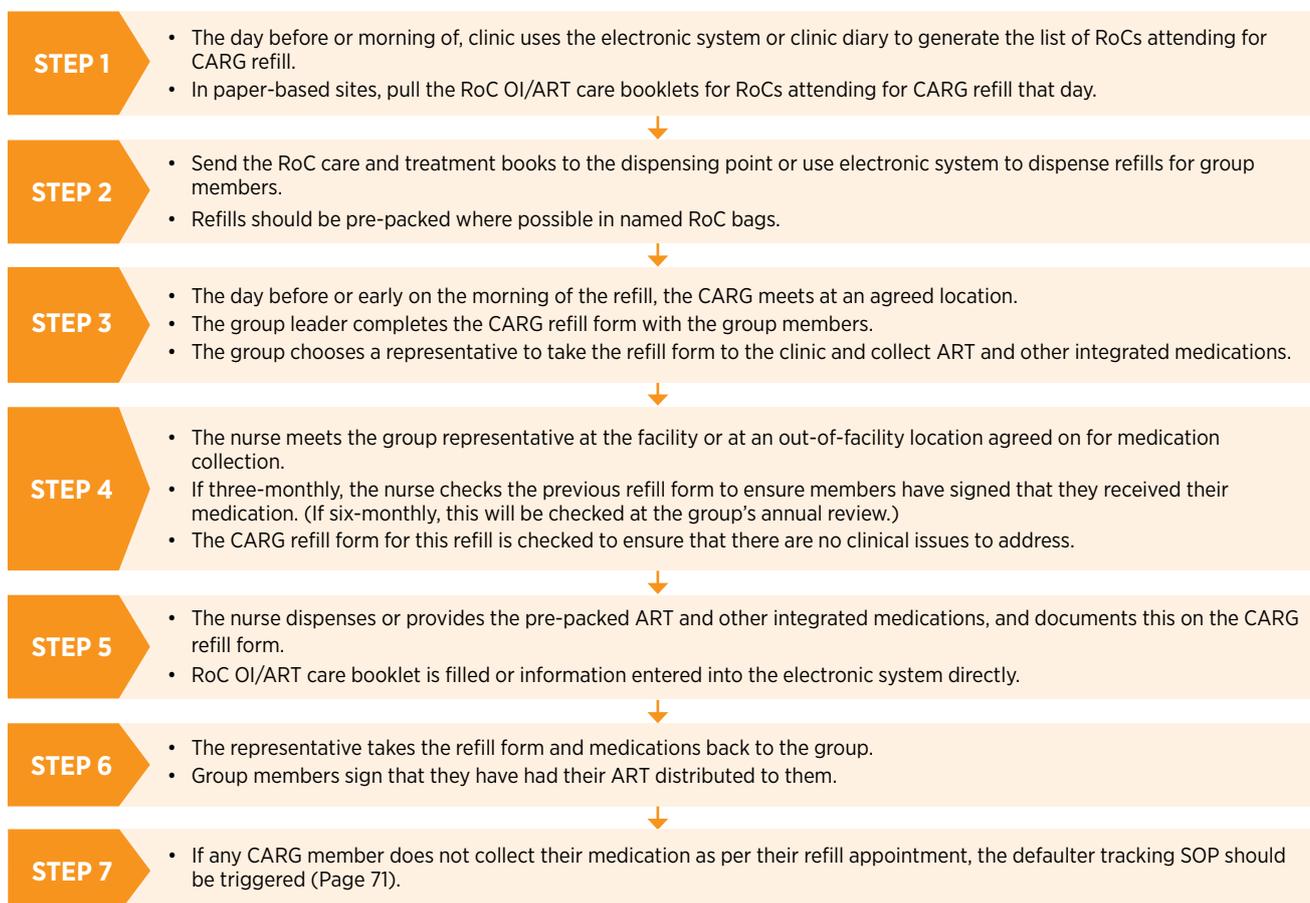


Model not suitable for this population

What happens on the day of the refill?

The CARG will meet once or three times a year depending on the refill duration they choose. (If there are six-monthly refills, the group may also meet for psychosocial support, and this can be organized according to the group's needs.)

The HIV treatment literacy manual may be used to facilitate group discussions.



CARG adaptations

NAME	POPULATION	COMMENT	WHY?
CARG pickup from an out-of-facility location	Any eligible CARG population	Where there is a regular out-of-facility ART refill model (e.g., outreach, drop-in centre), a CARG may also collect their medication for the group from this location	This adaptation is particularly relevant where distance is a major challenge or during specific seasons when travel may be restricted, e.g., due to flooding
Key population CARGs	Any key population	Groups are formed of a key population – most common example is sex workers	Provides peer support Reduces visits to clinics, which may be stigmatizing

Community ART group refill monitoring form

Community ART group refill monitoring form														
Facility name:					CARG number:									
Date group meeting before refill .. / .. / ..					Signature of group leader:									
Date ART prescribed by nurse .. / .. / ..					Signature of nurse:									
Date ARVs distributed .. / .. / ..														
To be completed By Group Leader					To be completed by nurse					To be completed By CAG member				
CARG member number	Full name	Pregnant (P) or on family planning (FP)	TB symptoms* Y/N	Other "alert" problems**	ARV tablets remaining	CTX tablets remaining	ARV regimen prescribed / quantity	CTX quantity prescribed	VL result (CD4 if not available)	Date VL	Full name	Signature of recipient	Date drugs received	Comments (include any reason for temporary clinic follow up)
1										.. / .. / / .. / ..	
2										.. / .. / / .. / ..	
3										.. / .. / / .. / ..	
4										.. / .. / / .. / ..	
5										.. / .. / / .. / ..	
6										.. / .. / / .. / ..	
7										.. / .. / / .. / ..	
8										.. / .. / / .. / ..	
9										.. / .. / / .. / ..	
10										.. / .. / / .. / ..	
11										.. / .. / / .. / ..	
12										.. / .. / / .. / ..	

*TB symptoms: Ask if the member has a current cough of any duration, is losing weight, has night sweats or has had contact with TB patient in last month
 **Alert problems: Ask if the member has any ankle swelling, puffiness of the face, breathlessness, diarrhea for more than 2 weeks, severe headache

Step 1:

In the community meeting the group leader completes this section.

They ask all group members about TB symptoms, family planning needs and other clinical or adherence problems.

Step 2:

The group representative attends the clinic bringing the refill form from previous visit and from this refill.

The nurse checks the previous form to ensure all clients have received their medication.

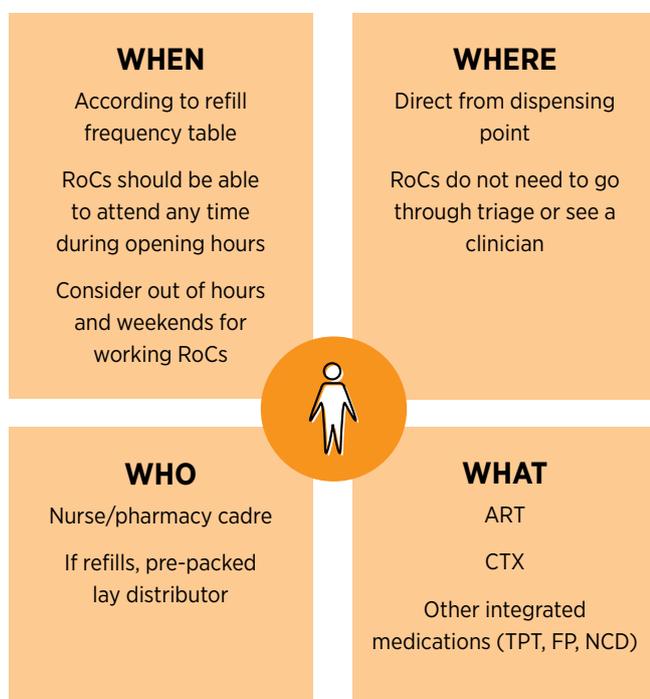
The nurse completes this section and completes the patient care and treatment booklet according to the refill SOP.

Step 3:

The group representative distributes the medication and shares any results. Each group member must sign that they have received their medication.



2.6.10 STANDARD OPERATING PROCEDURE FOR INDIVIDUAL MODEL BASED AT FACILITY



This model is commonly known as “fast-track”

- A fast-track visit should ideally take no more than 15 minutes.
- Fast-track relieves the burden on RoCs and healthcare workers in settings where the RoC has to see the HCW in one room and then queue again for medication in another room or pharmacy within the facility.
- Fast-track can be implemented for any age group or specific population where the clinical visit is less frequent than the refill duration.

What preparation is needed for this model?

- Healthcare workers, including pharmacy staff, need to be trained on completion of documentation of the RoC OI/ ART care booklet.
- There should be agreement with staff dispensing medication at the fast-track location to complete required documentation.

Which populations can be offered fast-track?

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Frequency of clinical visits	Monthly	4 monthly	4 monthly	4 monthly	6 monthly	Annually	6 monthly	Annually
Duration of ART refill	Monthly	4 monthly	4 monthly	4 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly
Individual model based at facility					If 3-monthly refills		If 3-monthly refills	
Fast-track								



Standard SOP applies



Adapted SOP applies



Model not suitable for this population

What happens on the day of the refill?

STEP 1

- The day before or morning of, clinic uses the electronic system or clinic diary to generate the list of RoCs attending fast track.
- In paper-based sites, pull the RoC OI/ART care booklets for RoCs attending fast-track for that day.



STEP 2

- Send the RoC care and treatment books to the dispensing point
- Fast-track refills should be pre-packed where possible if this facilitates distribution by a lay worker in the clinic.



STEP 3

- RoC attends on day of refill appointment any time during clinic operating hours.
- RoC should register attendance and move straight to the fast-track window.



STEP 4

- Dispenser asks if there are any health problems today (open question, not checklist).
- If YES, directs to the clinic.
- If NO, provides refill and completes refill documentation.



STEP 5

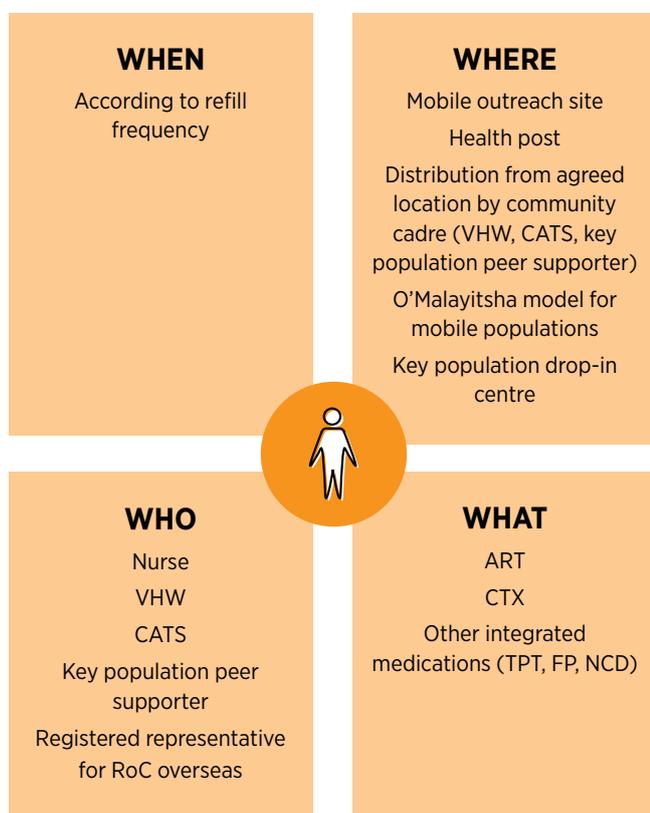
- The RoC OI/ART care booklet is sent for entry into the electronic system or information for the refill is directly entered into the electronic system.
- At paper-based sites, the next refill date is written into the appointment diary.



STEP 6

- If any RoC does not collect their medication as per their refill appointment, the defaulter tracking SOP should be triggered (Page 71).

2.6.11 STANDARD OPERATING PROCEDURE FOR INDIVIDUAL MODEL BASED OUT OF FACILITY



What preparation is needed before implementing this model?

Agreement of location

Mobile outreach by a facility team should agree with the community and the RoCs who will use the service on the most appropriate community location. ART refills may also be integrated into an existing outreach activity, such as ANC or EPI. Mobile outreach should only be implemented if resources to provide the service are assured. Provision of six-monthly refills may also reduce the burden of resources needed for this service.

In models where a community cadre delivers ART, the distributor should agree with the individuals for whom they are distributing ART on where they will collect their ART or agree to deliver to their homes.

System for drug distribution from the “hub” ART site

- There are a number of individual out-of-facility models implemented in Zimbabwe.
 - In all models, RoCs are registered at an ART site and their ART is sourced from that hub site.
 - The individual out-of-facility models fall into the following approaches:
 - ART refill delivery by a member of the facility team to a fixed site (drop-in centre, health post) or agreed out-of-facility location (e.g., mobile outreach)
 - ART refill from a fixed out-of-facility site staffed by a healthcare worker or lay cadre (e.g., drop-in centre, hostel for homeless RoCs).
 - ART refill delivery by a community cadre (VHW, CATS, KP peer supporter) or registered representative of a RoC working abroad.
 - This SOP outlines the basic principles of providing an individual out-of-facility model using the three approaches.
 - The SOP can be adapted across all populations.
- For mobile outreach and models where ART is distributed by a community cadre or in the o'Malayitsha model, medications should be prepared for the refill visit date and pre-packed in named and labelled bags. The pre-packed medicines are then transported, carried or, in the o'Malayitsha model, posted or couriered to the agreed location and distributed. In all these models there is a mechanism (WhatsApp, phone or the community cadre returning documentation) to ensure the medicines have been delivered.
 - Community cadres should not store medications at home and should distribute medications to the RoCs booked for the same day as they collect medication from the facility.
 - Drop-in centres should be linked with the hub ART facility. Drop-in centres have not been MCAZ-approved and, therefore, ART should be transported and stored at these sites only for RoCs identified as attending that week and no longer than that week.
 - Health posts should be linked with the hub ART facility. Until health posts have been MCAZ-approved, ART should be transported and stored at these sites for RoCs identified as attending that week and no longer than that week.

Which populations can be offered an out of facility model?

For children, adolescents and pregnant and breastfeeding women only consider an individual out of facility model where distance / access is a major challenge

	0-2 YEARS	2-4 YEARS	5-9 YEARS	10-19 YEARS	20-24 YEARS	ADULTS	PREGNANT & REASTFEEDING WOMEN	KEY POPULATIONS
Frequency of clinical visits	Monthly	4 monthly	4 monthly	4 monthly	6 monthly	Annually	6 monthly	Annually
Duration of ART refill	Monthly	4 monthly	4 monthly	4 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly	*3 or 6 monthly
Individual model not based at facility Mobile outreach Health post Community health worker, Trained peer (e.g., CATS, key population) delivery Community pharmacy Drop-in centres	Where model provided by trained healthcare worker and if accurate weighing possible						Choice of woman to remain in existing out of facility model	Adapted key population drop-in centre with integrated key population-specific services Key population peer delivery



Standard SOP applies

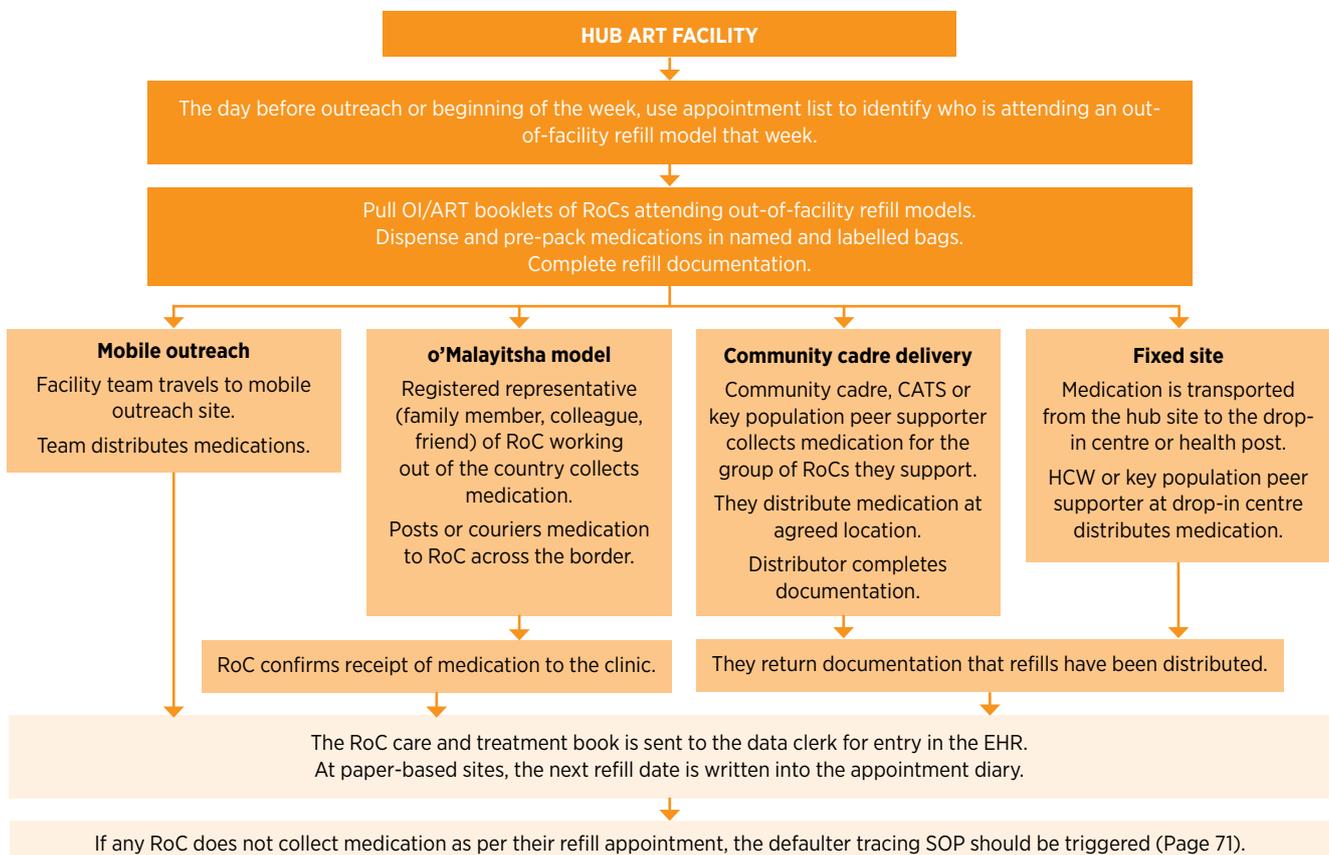


Adapted SOP applies



Model not suitable for this population

Summary SOP for out of facility models



Adaptations for specific populations

	WHICH INDIVIDUAL OUT-OF-FACILITY MODEL	WHEN (CLINICAL)	WHEN (REFILL)	WHERE	WHO	ADDITIONAL WHAT
Children 0-2	Must be seen by HCW – mobile outreach Must be able to weigh child accurately	Monthly	Monthly for child 6MMD for mother	Agreed outreach site	Nurse	Weighing Disclosure counselling Nutrition Childhood immunizations and monitoring
Children 2-5	Must be seen by HCW – mobile outreach Must be able to weigh child accurately	4 monthly	4 Monthly for child 4MMD for mother	Agreed outreach site	Nurse	Weighing Disclosure counselling Nutrition Childhood immunizations and monitoring
Children 5-9	Must be seen by HCW – mobile outreach	4 monthly Weekends, after school, holidays	4 Monthly for child 4MMD for mother	Agreed outreach site	Nurse	Weighing Disclosure counselling Nutrition Childhood immunizations and monitoring
Adolescents	Must be seen by HCW – mobile outreach	4 monthly	4 monthly	Agreed outreach site	Nurse CATs where psychosocial support needed	Adapted counselling Integrated SRH and mental health services
Young adults	Must be seen by HCW – mobile outreach	6 monthly	6 monthly	Agreed outreach site	Nurse	Adapted counselling Integrated SRH and mental health services
Pregnant women	Outreach with integrated ANC	6 monthly PLUS 8 ANC contacts	6 monthly	Agreed outreach site	Nurse Midwife Young mother mentor	Ensure ANC Additional VL Counselling related to PMTCT including SGBV screening
Breastfeeding women	Outreach with integrated PNC	6 monthly PLUS Follow-up of baby exposed to HIV	6 monthly	Agreed outreach site	Nurse Midwife Young mother mentor	Counselling related to PMTCT including SGBV screening Additional VL FP Exposed infant care (Prophylaxis, EID, vaccination)
Key populations	Key population drop-in centres Distribution by peer supporters Any of the individual out-of-facility models may be offered	Annual	6 monthly	Drop-in centre Agreed location with key population peer supporter	Nurse Primary counsellor Key population peer supporter	Adapted counselling Additional medical needs STI screening Integrated harm reduction services Hormonal treatment Comprehensive prevention package, including condoms, lubes, FP

2.6.12 Action when a RoC in a DSD model for RoC established on treatment becomes “not established”

RoCs may become “not established” on treatment if they:

1. Develop a VL >50 copies/ml
 - Follow the actions outlined in Section 2.8.1.
 - RoCs require enhanced adherence but may already have received a multi-month refill. RoCs should keep their medication, receive EAC and ensure that a repeat VL is taken after three months.
 - RoCs in group models should continue to receive the support of their group while receiving EAC.
 - If the RoC needs to switch to a new regimen, they should return to the follow-up schedule for first year and be considered for the DSD model again once they are established on the new regimen.
2. Develops a concurrent OI or other co-morbidity requiring more intensive follow-up
 - Follow the actions outlined in Chapter 2.7 and 2.8.2 on AHD.
 - The RoC should receive the appropriate investigation and treatment for the OI or co-morbidity.
 - Unless clinically contraindicated, the RoC can continue to receive multi-month ART refills.

More frequent visits are booked according to the respective co-infection/co-morbidity algorithm until treatment is completed or the other chronic condition is controlled.

2.6.13 Transition between differentiated service delivery models for RoC established on treatment

As RoCs move through their life course, they will transition between different service delivery models. Examples are:

- Children will transition from carer and child clubs to adolescent adherence clubs.
- Adolescents will transition from adolescent adherence clubs to any of the models offered to adults.
- Women living with HIV in any DSD for HIV treatment model who become pregnant may choose to remain in their model or transition their care to ANC or postnatally at FCH.
- After cessation of breastfeeding, any woman receiving care through FCH should transition back to a standard DSD for HIV treatment model coordinated by the ART clinic.

Appendix 5 outlines a checklist to assist with the transition of adolescents and young adults into adult care. This checklist should be used at each clinical assessment from 10 to 24 years.

Section 2.9.4 will outline in more detail the options for pregnant and breastfeeding women who are already receiving care through a DSD model for RoCs established on treatment.

2.7 Integration of other medical needs into DSD models for RoCs established on treatment

2.7.1 Introduction

Providing person-centred care means that HIV services should look to integrate other health needs into the DSD for HIV treatment models.

The priority areas for integration into DSD for HIV treatment models are:

- TB treatment and prevention
- Family planning (FP)
- Cervical cancer screening and treatment (according to national guidance)
- Cardiovascular risk assessment and management of hypertension and diabetes
- Screening and management of depression and anxiety

The goal of integration should be to provide a one-stop service for the recipient of care (RoC) during routine care.

- At the same facility, ideally in the same clinic room
- On the same day
- By the same healthcare professional

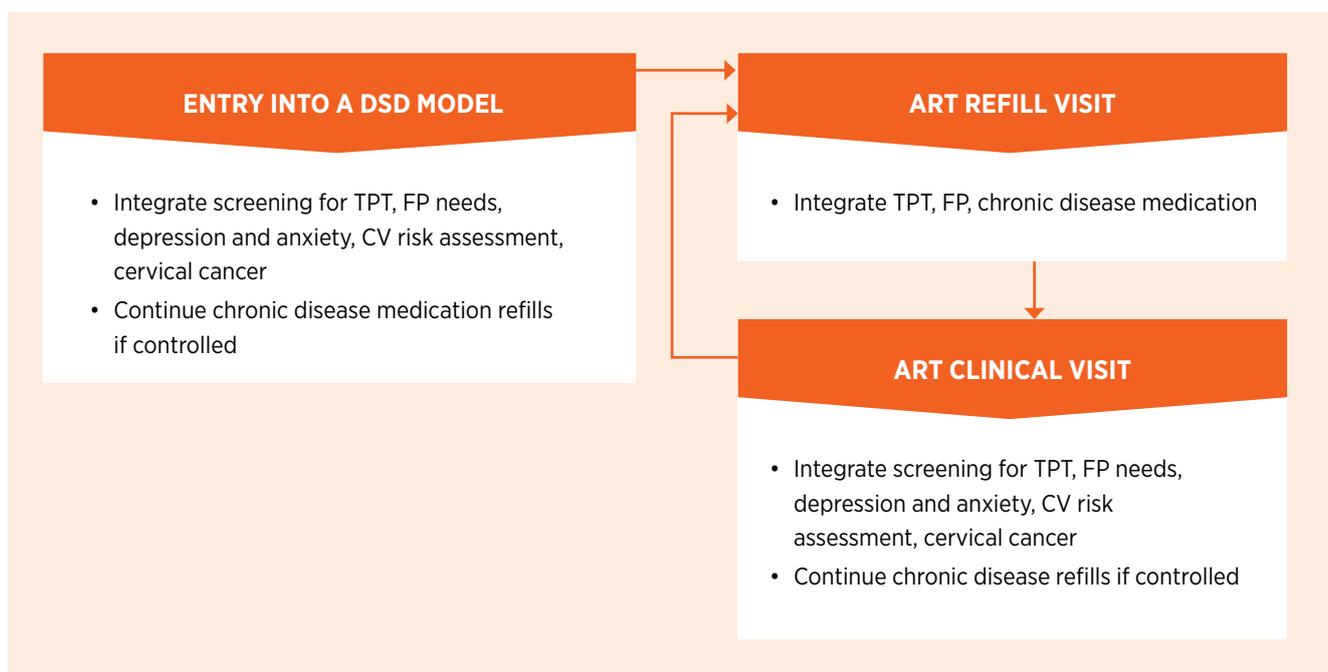
DSD for HIV treatment models can be leveraged to:

1. Screen or assess for other health conditions or needs at entry into DSD and at clinical visits.

AND

2. Integrate the delivery of other medications into the DSD for HIV treatment models for RoCs established on treatment.

Figure 20: Opportunities for integration of other health needs into DSD for HIV treatment models



To enable such integration, policies related to these other health needs must support:

- Increased duration of refills and alignment of medication refills with ART refills
- Task sharing of prescribing for initiation, titration (for NCD medication) and maintenance
- Decentralization of drug dispensing and distribution

This section will focus on opportunities for integration into DSD for HIV treatment models of TB, SRH (including contraception), hypertension (HTN), diabetes (DM) and mental health. The principles described may be applied to many other conditions that require chronic medications, including for people on long-term mental health medications who are stable.

2.7.2 TB/HIV integration

Components of TB/HIV integration

The aim of TB/HIV integration is to:

- Increase HTS coverage among TB RoCs as an entry point to HIV care
- Screen and diagnose active TB disease in people living with HIV
- Reduce the delay in initiating ART in people living with both HIV and TB
- Provide TB preventive therapy (TPT)

Table 27 outlines the key components of TB/HIV collaboration.

In large-volume sites where the TB and OI/ART clinics are separate, the goal should be:

- For RoCs whose first diagnosis is TB and who enter the system through the TB clinic, to initiate them on ART within the TB clinic. After successful completion of TB treatment, they should be transferred to the OI/ART clinic.
- For RoCs on ART who develop TB to receive their TB treatment within the OI/ART clinic, but ensure that they are registered according to the TB programme requirements.

In both scenarios, RoCs should be able to receive their ART and TB treatment on the same day, in the same consultation room, from the same clinician.

Intensified case finding

Intensified case finding aims to identify those in need of TB treatment and those in need of TPT.

- All RoCs with TB should be tested for HIV.
- All RoCs living with HIV should be screened for TB at every clinical visit and at every community contact.
- Contact tracing of all RoCs with TB should be carried out according to the standard guidance of the TB programme.
- TB screening should be performed during HTS using the standard screening tools.

TB infection control



The most infectious RoCs are those not yet diagnosed, that is, those coughing in the OPD.

Infection control measures can be divided into:

- Administrative
- Environmental
- Personal

Each hospital should have a functional infection control committee and each department or clinic should have an infection control focal person.

Table 27: Components of TB/HIV collaboration

A. STRENGTHENING THE MECHANISMS FOR DELIVERING INTEGRATED TB AND HIV SERVICES	
A1	Strengthening coordinating bodies for collaborative TB/HIV activities functional at all levels
A2	Determining HIV prevalence among RoCs with TB and TB prevalence among people living with HIV
A3	Carrying out joint TB/HIV planning to integrate the delivery of TB and HIV services
A4	Monitoring and evaluating collaborative TB/HIV activities
B. REDUCING THE BURDEN OF TB IN PEOPLE LIVING WITH HIV AND INITIATING EARLY ANTIRETROVIRAL THERAPY (THE THREE I'S FOR TB/HIV)	
B1	Intensifying TB case finding at facility and community sites and ensuring high-quality anti-tuberculosis treatment
B2	Initiating TB prevention with isoniazid preventive therapy and early antiretroviral therapy
B3	Ensuring control of TB Infection in healthcare facilities and congregate settings
C. REDUCING THE BURDEN OF HIV IN ROCS WITH PRESUMPTIVE AND DIAGNOSED TB	
C1	Providing HIV testing and counselling to RoCs with presumptive and diagnosed TB
C2	Providing HIV prevention interventions for RoCs with presumptive and diagnosed TB
C3	Providing cotrimoxazole preventive therapy for RoCs with TB and living with HIV
C4	Ensuring HIV prevention interventions, treatment and care for RoCs with TB and living with HIV
C5	Providing antiretroviral therapy for RoCs with TB and living with HIV

Administrative: Cough triage should be performed. Any coughing RoC should be identified and ideally given a surgical mask where resources permit. Cough hygiene should be promoted in the waiting area. Coughing RoCs or any known smear-positive RoC, until converted, should be fast-tracked for assessment.

Environmental: One of the most effective interventions is to ensure good cross-ventilation and that existing windows are opened. Position the desk and chairs so that airflow is from the healthcare worker towards the RoC.

Personal: Ideally, N95 masks should be worn when managing a coughing RoC. However, these are often not available. Healthcare workers are mandated to wear them if dealing with a DRTB suspect.

Integration of TPT into DSD for HIV treatment models

Where TB screening is negative, TPT should be offered to the following RoCs:

- People living with HIV newly initiated on ART on the same day and at the same time as ART initiation
- People living with HIV of any duration on ART who never received TPT or received TPT more than three years ago. RoCs should be educated on the need for repeating TPT every three years.

Different TPT regimens are available (3HP or 6INH, see the clinical guidelines). Both 3HP and 6INH regimens may be integrated into DSD for HIV treatment models. There are three possible scenarios to consider for integration:

<p>TPT is started at ART initiation and it is completed prior to entry into a DSD for HIV treatment model for RoCs established on treatment.</p>	<p>RoCs are eligible for enrolment in a DSD for HIV treatment model while TPT is ongoing, and TPT must be integrated.</p>	<p>RoCs are already in a DSD for HIV treatment model (for RoCs established on treatment) and are eligible for TPT. They are initiated on TPT, have their follow-up, and then complete their TPT within the model. In group models, healthcare workers are encouraged to try to align screening for eligibility and TPT treatment for group members in a one-stop manner.</p>
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Table 28: The building blocks for TPT integration

The building blocks of TPT integration should be considered for the following steps:

- **TB screening**
- **TPT initiation**
- **TPT maintenance**
- **TPT documentation of completion**

	SCREENING FOR TB	INITIATION OF TPT	TPT MAINTENANCE	COMPLETION OF TPT
WHEN 	Every clinical visit Every CARG refill	Clinical visit	Multi-month script of TPT	Clinical visit
WHERE 	Facility Community	Facility Community Home	Facility Community Home Remote follow up	Facility Community Remote follow-up
WHO 	Peer, lay worker, nurse, clinical officer, doctor Community cadres, including CATS and key population peer supporters	Nurse, clinical officer, doctor	Peer, lay worker, nurse, clinical officer, doctor Community cadres, including CATS and key population peer supporters	Nurse, clinical officer, doctor
WHAT 	Verbal TB screen and TB tests according to local TB diagnostic algorithm	TPT eligibility assessment (incl. contraindications for TPT); treatment literacy for TPT side-effects; and TB symptoms Script for TPT refills and align with ART refills Register TPT start	Assess adherence Provision of TPT and ART refills TPT follow-up TPT side-effects/TB symptoms Register TPT follow-up	TPT completion documentation Educate on the need to repeat TPT in three years

TPT may be integrated using the building blocks into any of the four standard DSD for HIV treatment models (Chapter 2.6) and into those models adapted for specific populations.

TPT must also be offered to children and adolescents and integrated into their adapted DSD for HIV treatment models.



WHEN: Multi-month refills of TPT may be given. For INH, three- or six-monthly refills should be provided and the full three months of 3HP may be given at initiation. The full course of TPT should be assigned to any RoC initiated on TPT to avoid treatment interruption.

Recommended follow up is:

- 3HP: Follow-up call at week 2, month 1, month 3 – document completion
- 6INH: Follow-up call at week 2, month 1, month 3, month 6 – document completion



WHERE: When multi-month TPT refills are given, clinical follow-up, as outlined under WHEN, can be carried out by telehealth or in the community.



WHO: TB screening and TPT maintenance can be task shared to community cadres, VHW, CATS, key population peer supporters and expert RoCs.

2.7.3 SRH/HIV integration

Goal of SRH/HIV integration

SRH/HIV integration must be considered at both the OI and FCH clinics. The following integration opportunities should be implemented:

- HTS (including re-testing) among pregnant and breastfeeding women, their partners and children and women attending family planning services
- Provision of linkage to combination prevention strategies for RoCs testing negative, including PrEP, ideally within FCH and family planning services
- ART initiation and follow-up for pregnant and breastfeeding women testing positive in FCH
- Family planning service integrated into OI clinics and DSD models for RoCs established on ART
- Cervical cancer screening (according to national guidelines) integrated into the clinical review at OI clinics or during outreach services.
- Screening and treatment of STIs within the OI and FCH clinics

Integration of family planning into DSD for HIV treatment models

- FP is an essential pillar of the PMTCT programme. All available FP methods should be offered to women living with HIV of childbearing age, including to adolescent girls and young women.
- Long-acting methods (IUD, implant) do not require any interaction with the health facility after insertion until removal is indicated or the woman no longer requires contraception.
- Where supplies of contraceptive pills are limited, a multi-month script should be provided. The RoC is then able to pick the remaining months' supply through a fast-track model or a community distributor.
- Sayana Press, a subcutaneous depot contraceptive injection that could be injected by a community cadre or self-injected, is being piloted in Zimbabwe and offers opportunities for self-management and reduced clinic visits.
- Condoms should be provided through all the DSD models and family planning discussed with male RoCs at their clinical visits.

Table 29: Building blocks for the common family planning methods provided

	IUD	IMPLANT	ORAL PILLS	SUB-CUTANEOUS 3-MONTHLY INJECTABLE	INTRA-MUSCULAR 3-MONTHLY INJECTABLE	CONDOMS
WHEN 	At DSD entry At DSD clinical visits At facility walk-in services in between visits	At DSD entry At DSD clinical visits At facility walk-in services in between visits	At same clinical and refill visit as ART Every 3 months	Not yet available	At DSD entry At DSD clinical visits At facility walk-in service Every 3 months	At same clinical and refill visit as ART Every 3 months
WHERE 	Offer at ART clinic or through referral Primary care clinics Hospitals	Offer at ART clinic or through referral Primary care clinics Hospitals	Primary care clinics Hospitals	Not yet available	Primary care clinics Hospitals	Primary care clinics Hospitals
WHO 	IUD-trained doctor, midwife or nurse	Implant-trained doctor, midwife or nurse	FP-trained doctor, midwife, nurse, clinical officer, community-based distributor	Not yet available	FP-trained doctor, midwife, nurse, clinical officer	Doctor, clinical officer, midwife, nurse, community distributor, VHW, CATS and key population peer supporters
WHAT 	IUD information, counselling, insertion/removal, management of side-effects	Implant information, counselling, insertion/removal, management of side-effects	Combined and progestin-only pills, information, dispensing of pills, management of side-effects	Not yet available	Injectable information, counselling, giving of injections, management of side-effects	Male and female; information, counselling, dispensing of condoms

FP may be integrated using the building blocks into any of the four standard DSD for HIV treatment models (Chapter 2.6) and into those models adapted for specific populations.

FP must be offered to adolescents and young adults with a non-judgemental approach and integrated into their adapted DSD for HIV treatment models.



WHEN:

- A quality FP consultation should be carried out at entry into a DSD model and at each clinical visit.
- Those methods requiring ongoing commodities should be given on the same day and time as ART.
- Align pill refills and depot with ART refills.
- Women should always be still offered a six-month ART refill.
- For pills, if the supply chain cannot match 6MMD, provide a multi-month script that can be collected directly from the pharmacy, community distributor or via a refill model.
- Injections should be booked for the same date as ART refills or clinical visits. Women on three-monthly injectables should still be able to receive 6MMD of ART, and the additional visits should be offered at the site they receive their ART.



WHERE:

- Same location as ART
- In some settings, referral may be needed for insertion of IUDs and implants, but the goal should be for other methods to be available where ART is delivered.
- Contraceptive pills and condoms can be distributed in community locations.



WHO:

- The same HCW as providing ART
- Referral may be needed for IUDs and implants.
- In high-volume sites, the goal should be for one HCW to be trained to insert IUDs and implants.
- Community distribution of pills may also be performed by family planning community distributors.
- Condoms may be distributed by community distributors, VHWs, CATS and key population peer supporters.

2.7.4 Diabetes and hypertension integration

Recommendations for diabetes and hypertension integration

HIV itself and a number of antiretroviral medications are risk factors for cardiovascular disease. In addition, as the ART cohort ages, RoCs will increasingly present with other chronic conditions, such as diabetes and hypertension.



To identify cardiovascular risk factors, all RoCs living with HIV and on ART should have their blood pressure and cardiovascular risk* assessed during the annual clinical review.

Diabetes and hypertension care should be integrated with HIV services.

*Cardiovascular risk should be assessed using the CVS risk charts available in the national NCD guidelines.

Integration of hypertension and diabetes care into DSD for HIV treatment models

Hypertension (HTN) and diabetes (DM) both require lifelong medication. Hence, the principles of DSD may be applied for any chronic disease. For people living with HIV who are already in DSD for HIV treatment models, integrating their HTN/DM needs into their model provides a person-centred approach, reducing the burden on both the RoC and the health system by reducing the number of clinical visits.

Using a similar approach to defining established on treatment as used in HIV, the following criteria for HTN and DM are proposed.

Table 30 outlines the criteria for established on treatment for HTN and DM.

Table 30: Criteria for established on treatment for HTN and DM

CONSIDERATION FOR INTEGRATION	HTN	DM
Control target	<140/90 measured on two occasions at least one month apart	HbA1C <7% recorded in the last 3 months Or Fasting blood sugar (FBS) < 7 mmol/L recorded in the last 3 months
Duration on current regimen	At least three months on current regimen	At least three months on current oral regimen
Other co-morbidities	No other uncontrolled co-morbidities requiring more frequent clinical interventions	No other uncontrolled co-morbidities requiring more frequent clinical interventions
Adherence	Good understanding of lifelong adherence: adequate adherence counselling provided	Good understanding of lifelong adherence: adequate adherence counselling provided

Table 31: The building blocks for HTN/DM integration

The building blocks of HTN/DM integration should be considered for the following steps:

- Screening and diagnosis
- Initiation
- Titration
- Maintenance

	HYPERTENSION/ DIABETES SCREENING/ DIAGNOSIS	INITIATION HYPERTENSION/ DIABETES MEDICATION	TITRATION HYPERTENSION/ DIABETES MEDICATION	MAINTENANCE HYPERTENSION/ DIABETES MEDICATION
WHEN 	At ART initiation/re-initiation Entry into DSD Clinical visits If normal, repeat BP annually Repeat screening for DM according to national NCD guidance	At ART initiation/re-initiation Entry into DSD Clinical visits	Booked monthly visits until hypertension is controlled	Three monthly clinical and refill visit for HTN/DM When controlled, repeat 3 monthly checks for fasting blood sugar (or HbA1c), BP & BMI. Annual clinical visit and three or six-monthly refills for ART Align HTN/DM/ART clinical and refill appointments
WHERE 	Same location as ART	Same location as ART	Same locations as ART	Same location as ART
WHO 	Nurse Community cadres	Same healthcare worker as ART Doctor Nurse	Same healthcare worker as ART Doctor Nurse	Same healthcare worker as ART Nurse VHW, key population peer supporter for distribution
WHAT 	Correct measurement of BP; fasting glucose; HBA1C	Correct selection of initial BP or DM medication according to algorithm	Correct measurement of BP/ testing of FBG or HBA1C and titration of HTN/DM medication according to algorithm	Hypertension, DM and ART refills

HTN/DM medications may be integrated using the building blocks into any of the four standard DSD for HIV treatment models (Chapter 2.5) as long as BP or a FBS can be checked in that model. Hence for those with comorbidities integration into group models managed by healthcare workers, a modified fast track or an out of facility model led by a HCW (so that BP/FBS can be checked) should be the initial models chosen for HTN/DM integration.



WHEN:

- Same day and time as ART
- Align duration of all chronic medications: ART, diabetes and hypertension.

What if we cannot provide multi-month medication refills for HTN and DM?

- Multi-month refills of all chronic medications should be the goal.
- **BUT, if that is not possible, DSD models are the means to reduce the burden on the health system and RoCs.**
- Provide multi-month scripting as you would for a refill model.
- Dispensing then will be according to availability or how much the RoC can afford to purchase.
- The dispenser will indicate how much has been dispensed, but the RoC can collect the remaining refill directly from the dispensing point, rather than attending the clinic again for another script.

Don't we have to check the blood pressure every month?

WHO 2021 recommendation: Once established on treatment, BP can be checked every three to six months.



WHERE:

- Same location as ART (facility, out of facility)
- Consider out-of-facility BP checks when RoCs collect their six-monthly refill to enable annual clinical visits.



WHO:

- The same HCW as providing ART
- Community distribution of refills may also be performed by community cadres, including key population peer supporters.

Table 32 outlines the different scenarios that may present when integrating screening and treatment of HTN/DM into DSD for HIV treatment models. If at any point, VL becomes unsuppressed or HTN or DM is not controlled, the RoC will receive a period of more intensive follow-up. For HIV, see Section 2.8.1. For HTN and DM, similar assessment for adherence challenges should be carried out and, where needed, up-titration of medications according to the national guidelines. For the disease that is controlled, continue to provide MMD through the DSD for HIV treatment model.

Table 32: Scenarios for the integration of HTN/DM into DSD for HIV treatment models

	SCENARIO	ACTION
Scenario 1	HTN/DM is already identified and controlled at entry into DSD model for HIV treatment.	Enter integrated HTN//DM/HIV DSD model. Align medication refills and clinical visits.
Scenario 2	HTN/DM is identified at enrolment into DSD model for HIV treatment.	Enter DSD for HIV treatment model. Confirm HTN/DM diagnosis. Initiate treatment and monthly titration until control reached. Criteria for DSD for HTN/DM reached and integrate HTN/DM into DSD for HIV treatment. Align medication refills and clinical visits.
Scenario 3	RoC already in DSD for HIV treatment model. HTN/DM identified at clinical visit.	Continue DSD for HIV treatment model. Confirm HTN/DM diagnosis. Initiate treatment and monthly titration until control reached. Criteria for DSD for HTN/DM reached and integrate HTN/DM into DSD for HIV treatment. Align medication refills and clinical visits.
Scenario 4	RoC already in DSD for HIV treatment model. HTN/DM is not controlled.	Continue DSD for HIV treatment model. Check adherence and monthly titration until control reached. Criteria for DSD for HTN/DM reached and continue integrated HTN/DSD for HIV treatment model. Align medication refills and clinical visits.
Scenario 5	RoC already in DSD for HIV treatment model. HTN/DM is controlled.	Continue integrated HTN/DM DSD for HIV treatment model. Align medication refill and clinical visits.

2.7.5 Integration of screening and management of mental health conditions

Screening for depression and anxiety

All RoCs should be screened for anxiety and depression at their clinical reviews (adults annually, young adults every six months, adolescents every four months).

In addition, screening should be carried out for any RoC:

- With VL >50 copies/ml
- Re-engaging in care

All RoCs should be screened for anxiety and depression, starting with four screening questions:

Ask:

1. During the past month, have you felt like you were losing interest or pleasure in doing things?
2. During the past month, have you felt down, depressed or helpless?

If the RoC answers YES to either question, document “PHQ+” – administer the Shona Symptom Questionnaire (SSQ14).

Ask:

1. Over the past two weeks have you felt, nervous, anxious or on edge?
2. Over the past two weeks have you not been able to stop or control your worrying?

If the RoC answers YES to either question, document “GAD+” – administer SSQ14.

OR

If the RoC presents with red-flag issues (virological failure, missed appointments, challenging psychosocial issues), administer SSQ14.

Stepped-care referrals should be made based on the SSQ14 score using the algorithm outlined in Figure 21.



WHEN: Medication refills for mental health conditions should be aligned with ART refills.



WHERE: Provision of psychosocial support and treatment for depression and anxiety should be available at primary care; referral should be made according to the clinical guidance.

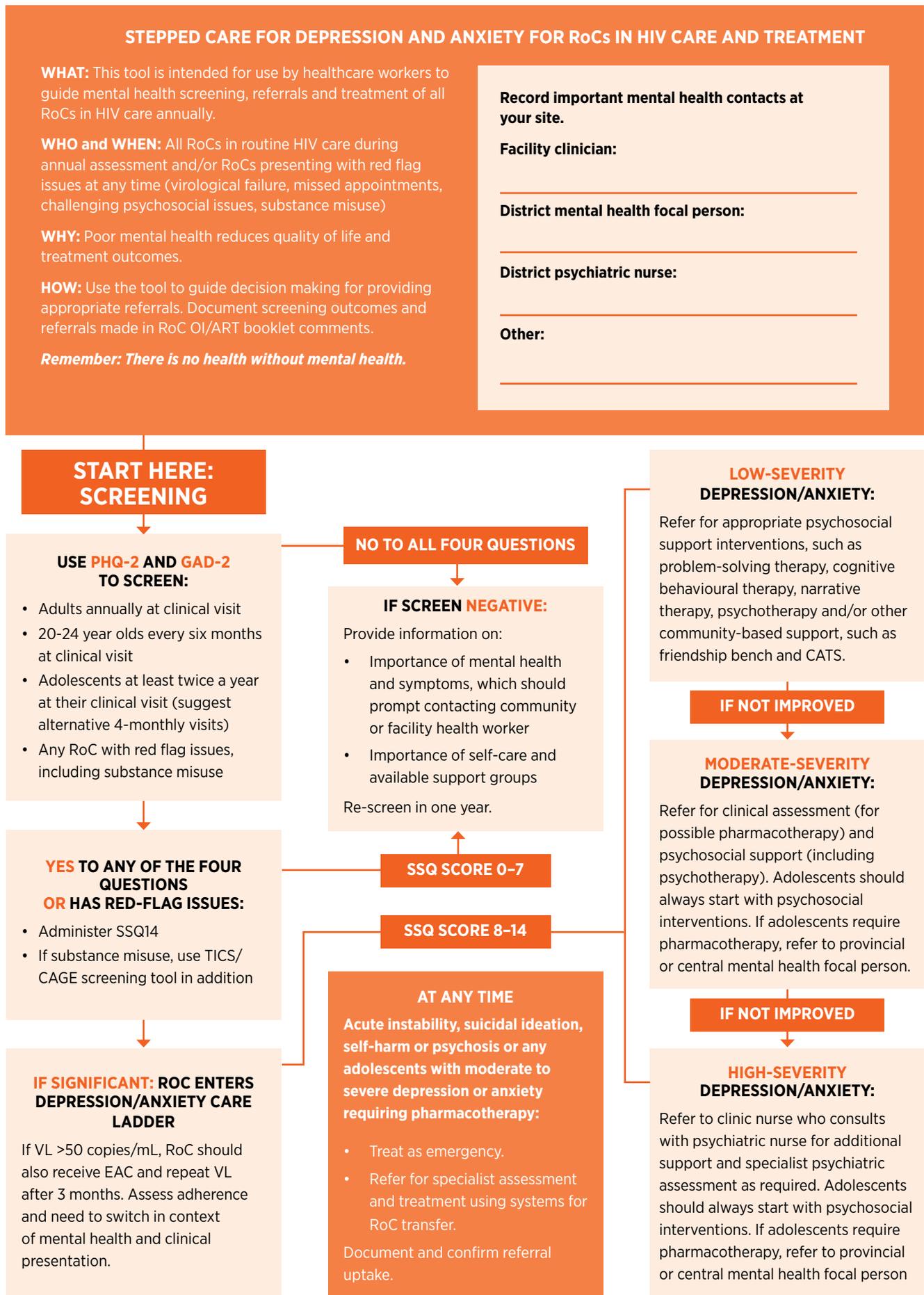


WHO: Nurses working in primary care should be trained in the MH-GAP.



WHAT: Psychosocial support; medication for depression and anxiety as outlined in the MH-GAP.

Figure 21: Stepped care for management of depression and anxiety





2.8 Differentiated service delivery for RoCs not established on treatment

2.8.1 Differentiated service delivery for viral load management

Viral load results can be categorized into three groups

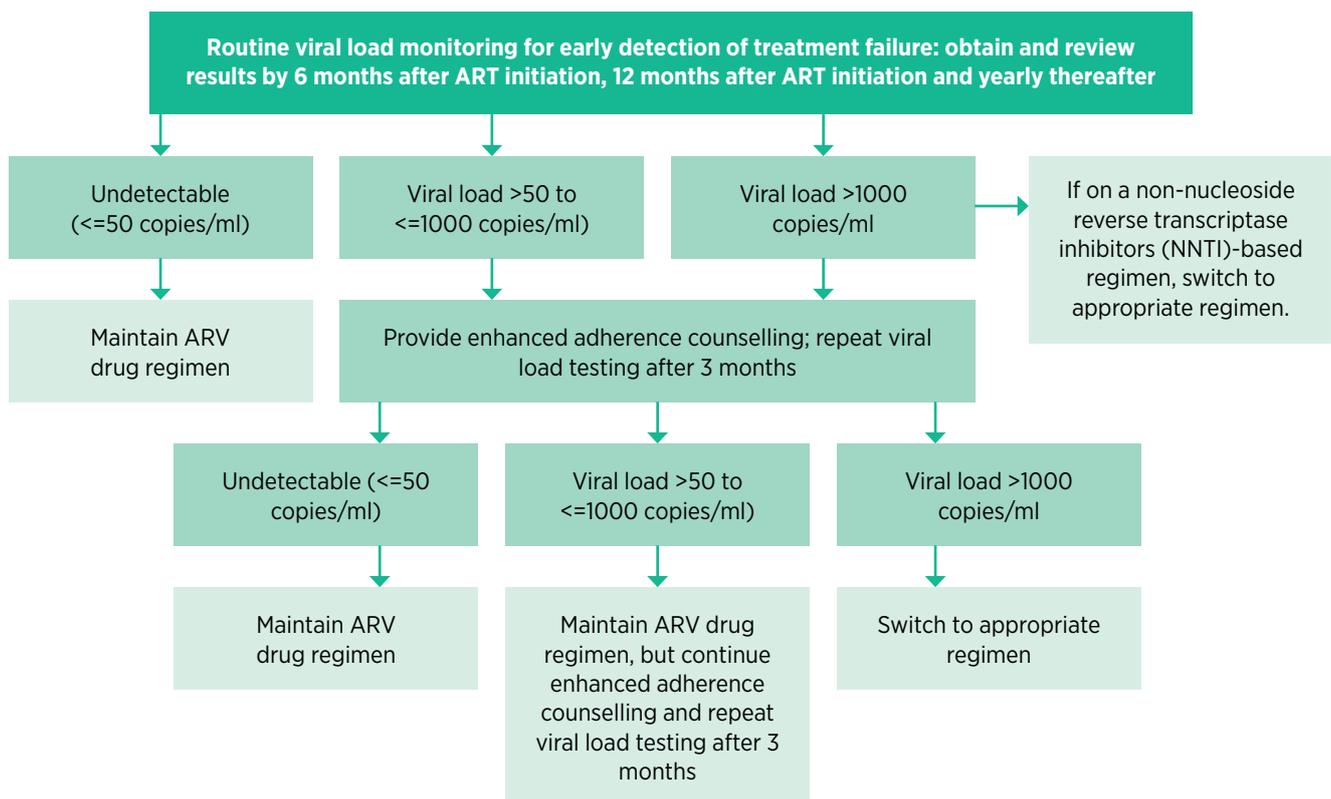
- Undetectable ≤ 50 copies/ml
- Low-level viraemia >50 to ≤ 1000 copies/ml
- Unsuppressed >1000 copies/ml

This section describes DSD and other programmatic strategies for:

- Action for low-level viraemia and unsuppressed viral load
- Switching regimens

- RoCs who have been on a DSD model for RoCs established on ART and who develop a high viral load may already have several months of ART in hand from an MMD refill visit.
- When a VL >50 copies is detected, the RoC should receive:
 - A clinical assessment; do not take back refill supplies that the RoC already has
 - EAC according to schedules outlined in Table 33
- EAC should be carried out in a non-judgemental way.
- EAC should be face to face but where access is a major challenge, consider delivering EAC in the community or through telehealth.
- Consider allocating a specific clinic session for booking RoCs with low-level viraemia or unsuppressed viral loads for their initial clinical assessment and EAC schedule.

Figure 22: The VL algorithm



2.8.1.1 Action and service delivery building blocks when VL is not suppressed

Table 33: Action and service delivery building blocks when VL >50 copies/ml

	WHAT	WHEN	WHERE	WHO
Documentation	Enter VL result into RoC OI/ART care booklet	As soon as possible after VL result delivery	Facility	Doctor Nurse
History and examination	Screen for TB and identify any staging conditions	As soon as possible after VL result delivery	Facility	Doctor Nurse
CD4	>50 to ≤1000 copies/ml: No (unless clinically unwell – Stage 3 or 4 condition identified) >1000 copies/ml: Yes	As soon as possible after VL result delivery	Facility	Nurse Primary counsellor Laboratory technician/scientist/microscopist
Refill	RoC keeps refills in hand if already dispensed at annual visit. If RoC needs refills, discuss duration. If distance and cost for additional visits are challenges, consider community-based or telehealth EAC 2 and provide 3-monthly refills.	At first EAC	Facility	Doctor Nurse
EAC 1	Open EAC form (Page 13 of RoC OI/ART care booklet) EAC 1 (Page 102); face to face	As soon as possible after result delivery	Facility: face to face Out of facility*	Nurse Primary counsellor CATS Key population peer supporter Community cadre
EAC2	EAC 2 (Page 105); face to face is preferred but where access is a major challenge, consider a community cadre (CATS, key population peer supporter) or through telehealth If significant psychosocial challenges are identified, consider additional EAC or referral to appropriate additional services	4 weeks after EAC 1	Facility Out of facility* Face to face is preferred, but where access is a challenge, consider doing it in community or by telehealth	Nurse Primary counsellor CATS Key population peer supporter Community cadre
Repeat VL	12 weeks after EAC 1, where possible, using POC VL; if not available, flag the test on the VL request form as urgent	12 weeks after EAC 1	Facility Out of facility*	Nurse Primary counsellor Laboratory technician/scientist/microscopist
Action on repeat VL	Enter VL into EAC form in RoC OI/ART care booklet If suppressed, enter or return to DSD model for established on ART If not suppressed, follow viral load algorithm	As soon as possible after receipt of repeat VL	Facility	Doctor Nurse

*Where out-of-facility models are run by HCW or primary counsellors, e.g., mobile outreach or drop-in centres

See Pages 102-106 for content of EAC sessions 1 and 2 and Page 13 of the RoC OI/ART care booklet.

Enhanced adherence session 1

Counsellors should document their findings in the RoC OI/ART care booklet EAC section.

Timing	Session 1: Date high viral load result given to RoC
Duration	Approximately 15 minutes
Mode	Individual; face to face is preferred, but where it is not possible (e.g., access is challenging), consider community-based or telehealth
Tools	EAC session guide and job aide

Introduce yourself to the patient.

Step 1: Viral load education review

Assess the RoC's understanding of undetectable viral load, low-level viraemia and unsuppressed viral load. Ask the RoC to explain to you what each means. If they require more explanation, you can say things like:

- The main job/work of your ARVs is to reduce the HIV in your body to a very small amount.
- We can measure this amount of HIV by taking a blood test that we call a viral load test. If ARV treatment is successful, the amount of HIV in the blood will be very low/small/suppressed and you will be healthy.
- The reason it is important to take your medication every day is to make sure that treatment is successful and the amount of virus in the blood is low.
- We have noticed that your viral load is going up. This is not something that can be ignored. We have to find the cause, overcome it, and make sure that your viral load becomes suppressed. We are here to help you achieve this.
- Most of the time, the cause of a high viral load is when you sometimes forget to take your medication.
- Learning to take these medicines is complex, but very possible. Just like learning anything new, it can be overwhelming at first and may take a lot of effort, but with practice, can become part of your daily routine.

Step 2: Discuss the patient's reason/explanation for his or her high viral load

Sometimes the RoC already knows why their viral load is going up. Here you can give them a chance to give their own explanation. Often, they will already tell you at this point that they are struggling with their adherence.

If they really don't know why their viral load is high, you can say:

- *We notice that when people sometimes forget to take their ARVs every day, it gives the virus a chance to multiply. Do you think that you sometimes forget?*

Make a short note of the RoC's explanation. Then move on to the next step. Don't linger too long on this step.

Step 3: Screen the RoC for depression and anxiety using the Shona Symptom Questionnaire (SSQ14) (Appendix 4)

Step 4: Review the time the medication is taken (dosing times) and create a medication schedule

This step is to review the time that the RoC has chosen to take their ARV doses. Establish what the RoC is doing and where they are at the time they have chosen. For example, if the RoC has chosen 9pm, but is already asleep in bed by 9pm, then that is not a good dosing time.

Establish with the RoC whether the time they are meant to take their medication is appropriate or whether the time is a problem.

If the time is a problem, then determine a new, more appropriate time with the RoC based on their schedule.

Remind them if on a once-a-day regimen and they are less than 12 hours late for a dose, they should take the dose as soon as they remember and still take their next dose at the appropriate time.

Then write down the new medication schedule in the counsellor's notes and in the RoC-held record.

Other reminders that may be used include a cell phone alarm, a specific TV or radio programme, or taking the medication with meals.

Step 5: Plan for storing medications

Help the RoC identify where at home they are going to keep their medications. If they are afraid of people seeing or finding the medication, then brainstorm a good place to hide them.

- Storage place: _____

Deciding on where to keep extra or emergency doses

Keeping an extra supply of tablets in specific places is always helpful in emergencies.

Help the RoC identify where they can keep an extra supply of medication in case they don't get home in time to take their medication. This could be: handbag, locker at work, backpack, wallet, jacket pocket, briefcase or car.

These tablets are only to be used when not home in time to take the next dose.

- Extra/emergency supply will be carried in: _____

Step 6: Motivation cards

This step can help RoCs learn strategies for remembering to take medications and for thinking helpful thoughts each time they look at their tablets. It is especially helpful for RoCs who have treatment fatigue, are depressed or are stigmatizing themselves.

Introduce the RoC to the notecard. Ask the RoC to think of their own personal goals and dreams for their future. What are the three most important things they still want to achieve in their future?

Have them write it in their own language on a notecard:

For example: "I want to see my children grow up"; "I want to be healthy for my job".

Ask the RoC if ARVs can help them achieve these goals in the future?

Encourage the RoC to place the notecard where they will read it every day, preferably right before they take their medication. This will associate taking ARVs with the positive things they want for their future.

- Top 3 goals for the future: _____

- Do you think that your ARVs can help you achieve your goals for the future?

Step 7: Discuss the RoC's support system

Has the RoC disclosed their status to any family, friends or co-workers? You can ask the RoC:

- *Do you have any people in your life who you can talk to about your HIV and ARVs? Suggest to the RoC that they enlist the support of their family, friends and co-workers in reminding them to take their medication if they have not already done so*
- The members of the RoC's support system are: _____

If they have not disclosed to anyone, write "none".

Step 8: Planning for substance use

In the past, the message given to RoCs was that they shouldn't mix ARVs with alcohol or drugs; the result is that RoCs decide not to take their ARVs on the day that they use alcohol or drugs. In time, we can support the RoC to stop abusing alcohol or drugs, but in the meantime, we want to help them adhere to ARVs while using alcohol or drugs.

You can ask the RoC in a casual way (not in an accusing way) if they sometimes like to have a few drinks.

Explain to the RoC:

- “We know now that taking ARVs together with alcohol or drugs is not a problem.”
- “Taking alcohol or drugs sometimes makes it difficult for us to remember to take treatment. If possible, it is best to limit your use, but if you are planning to take any alcohol or drugs, it is important to plan ahead so that you don't forget to take your treatment.”
- “Can you think of ways to still remember to take ARVs while drunk or high?”
- “It is a good idea to take ARVs before you start drinking, even if it is before your scheduled dosing time.”
- “If you are already out, ask a friend who is not drinking to make sure that you take your ARVs.”
- “Ask your wife or a family member to bring your medication to you and remind you to take them on time.”
- “If you feel that your alcohol or drug use is affecting your adherence, would you feel ready to be referred to some professionals that may help you to work on that problem?” (Refer this RoC to an alcohol support service, if available.)

Write the RoC's plan down in the counsellor's notes.

Step 9: Getting to your clinic appointment

This step helps the RoC solve problems associated with getting to their appointments. Make a plan for getting to appointments:

- Make a plan for getting to appointments:
- How do you get to your medical appointments?
- What would you do if your usual way of getting to your appointments was not an option (for example, if there was a taxi strike or it was raining when you usually walk)?
 - How do you usually get to clinic: _____
 - Back-up plan: _____
- If they are not able to come on the appointment date: remind the RoC that if they are unable to make their appointment, they must make sure to go to the clinic the next day, BEFORE they run out of medication.

Step 10: Review plans and plan the way forward

- Briefly summarize the plans made above.
- Identify the steps that the RoC needs to complete at home before your next visit, for example, placing emergency doses in their handbag and their new dosing time.
- Give a short motivational summary of how you believe in the RoC. Together, you will make sure that they suppress their viral loads.

Plan a way forward

- Inform the RoC that they will have another counselling session after four weeks.
- VL will be repeated after 12 weeks, ideally using a point-of-care device.
- VL results will be reviewed together and a way forward will be discussed.

Enhanced adherence session 2

Timing	Session 2: One month after 1 st EAC
Duration	Approximately 10 minutes
Mode	Individual; face to face at facility; if access is a challenge, consider carrying out EAC in the community or through telehealth
Tools	EAC session guide and job aide

Step 1: Identify any difficulties with plans and solve problems in any new issues

- Review action plan from previous session: for example, motivation card and emergency doses.
- Ask the RoC if they think that adherence has improved in the last month. Enquire in a friendly way if any doses have been missed.
- If the RoC experienced any difficulties implementing the plans, brainstorm solutions for the identified problem.
- Also solve problems in any new issues that may have come up in the past month.

Step 2: How to learn from mistakes

- This step may help RoCs prepare to recover from missing doses, which in the long run, is likely to occur.
- If a mistake occurs, the best choice is to return to one's adherence programme as soon as possible instead of acting on hopeless thoughts and giving up.
- Identifying what led to the mistake can provide important information that can help avoid future mistakes.
- It should be stressed that mistakes are normal and not a big problem. They only become a big problem when they lead to giving up.
- It is important to tell the RoC that they must not beat themselves up if they miss a dose. They must tell themselves that they are only human and that mistakes happen, but that they must return to their medication schedule as soon as possible. If they continue to have many mistakes, then the RoC must speak to their medical team as soon as possible.
- Make a plan with the RoC:
 - Positive thoughts you can think after you made a mistake _____

 - What can you learn from a mistake that will help you avoid another in the future? _____

Step 3: Check your notes to see whether the RoC has been referred to other services – if not, skip this step

- This includes referrals to psychology services, substance abuse groups and social services.
- Ask the RoC if they attended the appointment? Assure them that if they answer NO, the topic will not be brought up again during these sessions (for example, we won't force them to go to substance abuse groups).
- If they answer YES, then check in on their experience with the referral services.

Step 4: Preparing for travel

- Holidays are always a risk for poor adherence or default of treatment. Encourage RoCs to plan for holidays, to make sure that they have enough medication on hand before they leave town, and to remember to pack it.
- Make sure that all relevant information is in the RoC's notebook – clinic's phone number, RoC's current regimen and doses, latest VL, etc.
- Explain to them that if they are ever away from home and run out of medication, they must go to the closest ARV clinic and show their RoC notebook. Hopefully, that clinic can help them access medication.
- As backup, have the RoC programme their local clinic phone number and file number into their phone. This way, they have it on their phone in case they lose their RoC notebook.
- Save on phone: clinic number; my folder number.
- Identify where the RoC usually travels to and ask if they know where the closest ARV clinic is.

Step 5: Review plans

- Give another short motivational discussion on how you know they can do this. Together, you will make sure that they suppress their viral load.
- Book for repeat VL in two months.
- If additional EAC sessions are needed, schedule an appointment earlier.
- Repeat viral load should still be taken 12 weeks after EAC 1.

Switching to a new regimen after a second unsuppressed viral load



If indicated by the viral load algorithm, switching to a new regimen should be carried out within two weeks of receipt of the second high viral load.

Pregnant and breastfeeding women should be switched with priority and followed up with a repeat VL after three months.



Second-line preparation session

Provide repeat (second) viral load result

- If VL is >1000 copies/ml and there are no major adherence barriers, switch to second-line ART. The decision to start second-line ART is taken as a team (nurse and counsellors), supported by the mentors. It does not require a specific meeting.
- How does the RoC feel about the result?

Give general info on second-line treatment

- Explain how second-line treatment consists of other drugs, which will be able to fight the virus, if taken correctly.
- Explain the benefits of second-line treatment: CD4 will increase, OI will decrease, and viral load should be undetectable.
- Explain that second-line treatment can have some side effects (yellow eye with ATV/RIT; dizziness and breathlessness with AZT).
- Explain the need for good adherence on second-line treatment.
- Revise strategies identified during EAC on how to ensure good adherence.

Assess readiness to start second-line treatment

Counselling and clinical follow-up after second-line initiation is the same as for first-line initiation. Undertake to follow the RoC and give adherence support at:

- M1
- M3
- M6 – emphasize that the RoC will be bled for viral load
- Then follow the refill option of choice if eligibility criteria are met



Switching from DTG to a new regimen should not require referral of the RoC to a higher-level facility unless the RoC is seriously unwell, needs admission or needs further investigations not available at the primary care clinic.

Nurses at primary care clinics should be able to switch and, where needed, technical support should be provided by a doctor at the district through telehealth or through the mentorship team.

RoCs failing second-line antiretroviral regimens should be referred to the tertiary level for assessment for genotyping and assessment for possible third-line ART.

2.8.2 Differentiated service delivery for advanced HIV disease

The building blocks of differentiated service delivery can be used to design how the advanced HIV disease package of care is delivered.

The building blocks can be described for the following components of advanced HIV disease care:

- Identifying AHD
- Screening and preventing AHD
- Initiation and switch and first three months of follow-up
- Tracing of RoCs with AHD

Identifying AHD

All RoCs should have a history taken and examination performed to identify Stage 3 or 4 disease at initiation, re-engagement, if detected with VL >1000 copies/ml and if presenting with specific OI symptoms.



Community and facility linkages should be made to identify RoCs with AHD. Treatment literacy on AHD should be strengthened so that all RoCs know what it is, recognize the red-flag symptoms and signs that they must present to the facility and know what investigations and therapies should be offered.

Red-flag symptoms and signs:

- Symptoms and signs of TB: cough, fever, weight loss
- Diarrhoea or vomiting
- Ongoing or severe headache
- Persistent fever
- Symptoms or signs related to possible side-effects of medication

The following RoCs should have a CD4 test:

- RoC newly initiating ART
- RoC re-engaging in care after more than three months off ART (See algorithm on Page 59)
- RoC with VL >1000 copies/ml
- Any RoC who is unwell and requires inpatient admission or is Stage 3 or 4

CD4 testing should be performed as a point of care where possible. A number of platforms exist for point-of-care CD4, including a lateral flow test. Where HIV testing and initiation are performed in the community, CD4 testing should also be performed in the community. Task sharing to trained nurses, primary counsellors and microscopists will also support out-of-facility testing.

Table 34 outlines the building blocks for the identification of AHD.

Table 34: Building blocks for the identification of advanced HIV disease

	IDENTIFYING CLINICAL SIGNS AND SYMPTOMS	PERFORMING CD4
WHEN 	Each clinical visit Any time in the community	At time of HIV diagnosis Re-engaging in care after more than 3 months off ART If VL >1000 copies/ml Presenting clinically unwell on ART
WHERE 	Facility Out of facility	Facility Out of facility
WHO 	Doctor Nurse Community cadre (including CATS, key population peer supporter, CARG member)	Laboratory technician/scientists Microscopist Nurse Primary counsellor
WHAT 	Identification of red flags and danger signs and symptoms	CD4, where possible at POC

Screening for and preventing AHD

When advanced HIV disease is identified, a package of screening and prevention interventions is required.

Screening tests (TB LAM, Xpert MTB/Rif, and CrAg) should be decentralized. Where feasible, TB LAM and CrAg should be performed as POC tests at primary care or at community initiation sites and may be task shared to nurses, primary counsellors and microscopists.

Provision of cotrimoxazole has been a standard part of HIV care for many years and TPT integration in DSD for HIV treatment models is addressed in Section 2.7.2.

Currently, fluconazole is a B-level drug and can be prescribed only in a hospital setting. Provision for fluconazole maintenance at primary care for those discharged after treatment for cryptococcal meningitis must be made and a mechanism for initiation of fluconazole pre-emptive therapy at primary care should be established at district level.

Table 35: Building blocks for provision of the AHD screening and prophylaxis package

 WHAT	TB LAM	XPRT MTB/RIF	Blood CrAg	Fluconazole pre-emptive treatment	CTX	TPT
 WHEN	Outpatient and inpatient settings: in adults, adolescents and children with HIV <ul style="list-style-type: none"> • With signs and symptoms of TB • With advanced HIV disease • Who are seriously ill • Irrespective of signs and symptoms of TB and with a CD4 cell count <200 cells/mm³ 	Whenever presenting with TB symptoms	If CD4 <200 cells/mm ³	If blood CrAg is positive and LP CrAg (if feasible) is negative	WHO clinical Stages 2, 3 and 4 CD4 cell count <350 cells/mm ³	TB screening negative Assessment for TPT repeated every three years
 WHERE	POC at same site as CD4 testing (inpatient, outpatient, primary care, out-of-facility site.)			Inpatient Outpatient Primary care site	Inpatient Outpatient Primary care site Out-of-facility site where trained cadre present	Inpatient Outpatient Primary care site Out-of-facility site where trained cadre present
 WHO	Laboratory technician/scientists Microscopist Nurse Primary counsellor Doctor Nurse Doctor Nurse			Doctor Nurse	Doctor Nurse	Doctor Nurse Primary counsellor for telehealth follow-up (Section 2.7.2)

Rapid initiation or switch and enhanced follow-up for RoCs with AHD

RoCs presenting with AHD should be offered rapid initiation (see Section 2.4). Those who are on ART who present with AHD should be assessed for failure and, where clinically indicated, offered a switch to an alternative regimen (see Section 2.8.1).

For RoCs who have required an inpatient admission, unless clinically contraindicated (for example, cryptococcal or TB meningitis), ART should be initiated before discharge. If ART initiation is delayed, linkage (written and telephone referral) to the PHC clinic where ongoing care is planned, must be made before discharge.

The differentiated more intensive follow-up schedule for AHD RoC is indicated in Section 2.5. During the first three months of follow-up, all RoCs with advanced HIV disease should have a more intensive clinical follow-up.

If presenting with active OIs that are being managed, this follow-up will be individualized and may require the RoC to attend the facility. However, if no medication changes are being made, community-based or telehealth check-ins may be considered and may relieve the burden on the RoC.

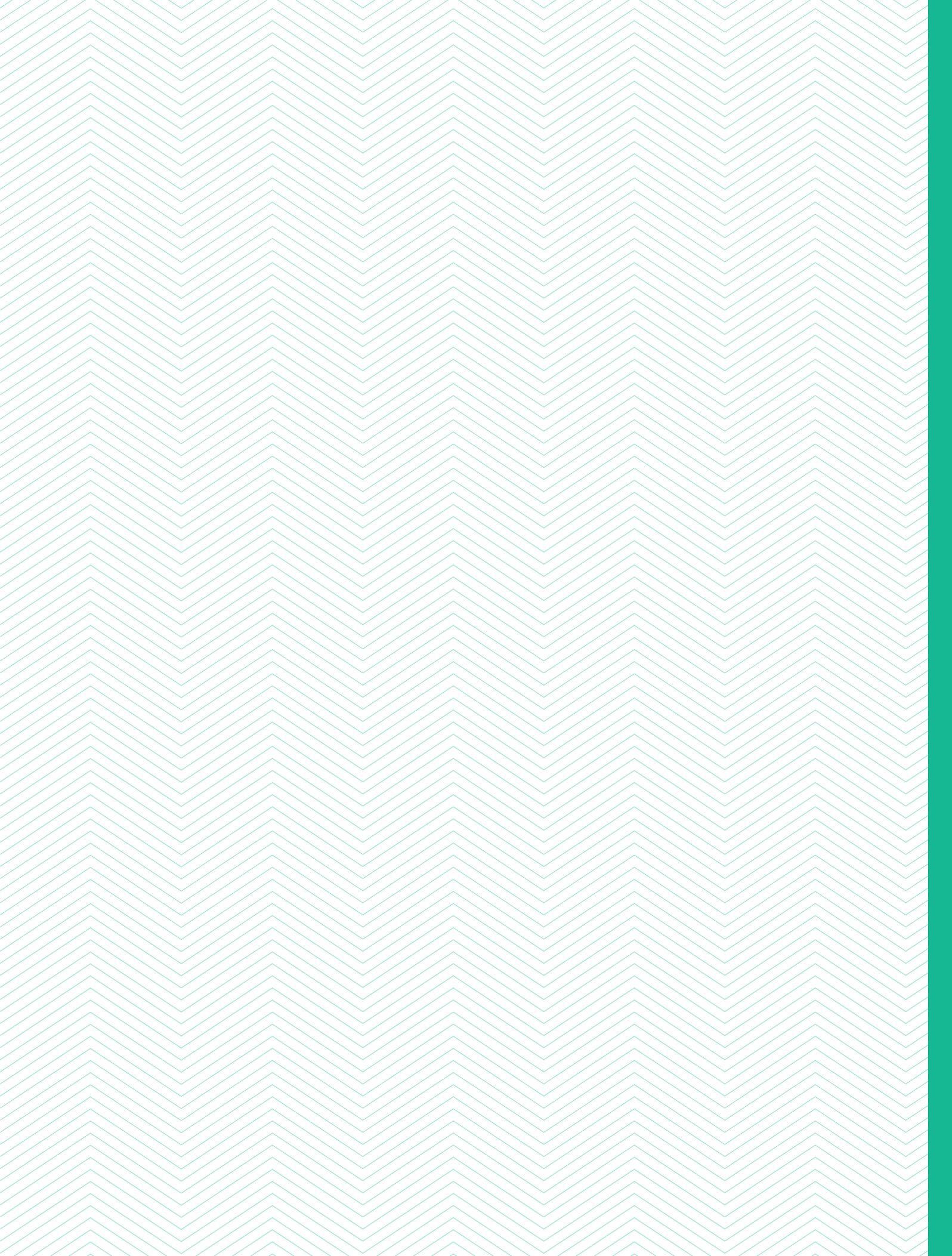
If the RoC is well but with a CD4 <200 cells/mm³, it is suggested that they are seen at the facility at months one and three as per the follow-up schedule (see Table 22) and, in addition, have a community-based visit or telehealth check-in at week two and month two.

If RoCs with AHD do not attend appointments, they should be prioritized for tracing following the tracing algorithm outlined in Section 2.6.5.

Table 36 outlines the building blocks for follow-up and tracing for AHD RoC.

Table 36: The building blocks for follow-up and tracing of RoC with AHD

	CLINICAL REVIEW	TRACING
WHEN 	If seriously unwell or discharged from an inpatient admission, individualize follow-up, but consider where community check-in is appropriate RoC is well but CD4 <200 Facility appointment at months 1 and 3 Community or telehealth check-in at week 2 and month 2	Prioritize tracing RoCs with advanced HIV disease Trigger tracing on same day as missed appointment
WHERE 	Facility Community Telehealth	From facility by phone or text At home by VHW, CATS, key population peer supporter
WHO 	Doctor Clinical officer Nurse Community check-in: community cadres, including CATS and key population peer supporters	Nurse Primary counsellor Community cadres, CATS, key population peer supporters
WHAT 	Assessment of OIs being treated IRIS Adherence	Phone or text Physical tracing Follow SOP in Section 2.6.5



2.9 Differentiated service delivery by population

This chapter provides a summary table of DSD approaches across the cascade of care for each specific population: children 0-9 years; adolescents and young adults; adults; pregnant and breastfeeding women; and key populations. For each population, a second table illustrates the DSD models for

recipients of care established on treatment that are available to that population.

Some special considerations are then outlined for mobile populations and people living with disabilities.

2.9.1 Summary of DSD for children (0-9)



- Children aged up to five years whose carers choose a facility model will be seen in primary care, FCH or a paediatric clinic depending on the level of facility.
- Children aged six years or older whose carers choose a facility model will be seen in primary care or an OI clinic.
- All children can be seen in outreach models where a healthcare worker attends regularly and accurate weighing is feasible.
- Children up to the age of two years are seen monthly; children aged two to nine are seen four monthly when established on treatment.
- Ideally, any carer who is living with HIV and has a child living with HIV should be seen on the same day in the same clinic by the same healthcare worker, ideally as part of a carer and child club, but should be provided with multi-month refills.

Table 37: DSD models for children established on ART (0-9 years)

	0-2 YEARS	2-9 YEARS
Frequency of clinical visits	Are not considered established on treatment Monthly	4 monthly
Duration of ART refill	Monthly	4 monthly
Individual model based at facility Fast-track		
Group model led by healthcare worker Club	Adapted carer & child club, e.g., YMMs, Mbereko groups	Adapted carer & child club, e.g., YMMs, Mbereko groups
Individual model not based at facility Mobile outreach Health posts	Possible where outreach is provided by a trained clinician for clinical assessments and weighing is feasible	Possible where outreach is provided by a trained clinician for clinical assessments and weighing is feasible
Group model led by RoCs CARGs		

 Eligible for adapted model

 Not eligible for the model

HTS	Linkage	ART initiation	First 12 months on ART	DSD for RoCs established on ART	DSD for RoCs not established on ART: high VL	DSD for RoCs not established on ART: AHD (all children <5 years considered AHD)
WHEN  EID: Birth, 6 weeks, 9 months, 18 months or 3 months after cessation of breastfeeding, whichever comes last Any infant exposed to HIV presenting late or where maternal HIV status is unknown or mother deceased Index testing for children of adults living with HIV Any child presenting HIV-related symptoms, TB, including children with malnutrition or admitted in an inpatient ward Asymptomatic >5 years: Use paediatric HIV screening tool	Same day as HTS If same day is not feasible, linkage should be within 7 days	Same day as HIV-positive test or within 7 days	0-2 years monthly 2-9 years, 4 monthly Align clinical and refill visits Table 21 Page 63 Take VL at month 6 and 12, then annually Use POC where available; flag otherwise, flag request as urgent	0-2 years, monthly 2-9 years, 4 monthly Align clinical and refill visits	If elevated VL >50 copies/ml, give EAC (Pages 102-106) and repeat VL after 3 months VL >50 copies/ml See intensive follow-up schedule	Assess for AHD at: Initiation Re-engagement (Section 2.4.8) VL >50 copies/ml See intensive follow-up schedule
WHERE  Predominantly facility-based Community-based, including <ul style="list-style-type: none"> • Index case testing • Door-to-door • Outreach 	Positive tests: from facility-based testing link to ART initiation in appropriate clinic for age group From community-based testing: <ul style="list-style-type: none"> • Initiate ART at point of testing (Section 2.4.3) • Escort to facility ART services • Or refer, using the MoHCC referral form From IPD to OI/ART or PHC clinic If infant exposed to HIV tests negative, provide ongoing education to mother on need for continuing ART and further testing for infant until breastfeeding ceases	At facility or community (as long as examination and weighing are feasible)	Facility Facility or out of facility See Table 26 page 73 for DSD for HIV treatment model options	EAC should ideally be face to face at the facility Where access is a challenge, consider in community or through telehealth	Facility	Facility
WHO  Doctor, nurse, primary counsellor	HCW delivering the test Community cadres, including YMMs, expert RoCs, to be informed to follow up linkage	Doctor Nurse Primary counsellor (counselling)	Doctor Nurse CHW CATS, YMMs	Doctor Nurse Primary counsellor CATS for EAC	Doctor Nurse Primary counsellor CATS for EAC	Clinical assessment: nurse, doctor POC tests: Nurse, primary counsellor, laboratory technician Additional community visit by community cadre
WHAT  Counselling <18 months NAT More than 18 months rapid test	Facilitated referral to facility or community ART initiation	Clinical assessment and readiness to start ART, psychosocial assessment Baseline investigations ART initiation	Offer adapted DSD models (Page 76 and 86) Most commonly: Carer and child club Psychosocial support – mother support groups – YMMs, Mbereko groups	VL >50 copies refer for EAC 1 and 2 (Page 102-106) Repeat VL (POC or flagged as urgent to lab) 3 months after first EAC Switch to 2nd or 3rd line regimen as appropriate Psychosocial support	VL >50 copies refer for EAC 1 and 2 (Page 102-106) Repeat VL (POC or flagged as urgent to lab) 3 months after first EAC Switch to 2nd or 3rd line regimen as appropriate Psychosocial support	Diagnosis (history, exam and CD4) Screening (TB LAM) and prevention (CTX, TPT) Rapid ART initiation/switch Linkage IPD to OI/ART services Psychosocial support

NB: All children living with HIV who are younger than two years are defined as having advanced HIV disease. Those children living with HIV above two years of age, consider eligibility for established on ART.



2.9.2 Summary of DSD for adolescents and young adults (10-24)

Table 38: DSD models for adolescents and young adults (10-24 years) established on ART

	10-19	20-24
Frequency of clinical visits	4 monthly	6 monthly
Duration of ART refill	4 monthly	3 (choice for group models) or 6 monthly
Individual model based at facility Fast-track		
Group model led by healthcare worker Club	Adapted adolescent adherence club Adapted carer club for young adolescents	Adapted youth club
Individual model not based at facility Mobile outreach Health posts	Possible where outreach is provided by a trained clinician for clinical assessments Psychosocial support may be given by CATS	Possible where outreach is provided by a trained clinician for clinical assessments Psychosocial support may be given by CATS
Group model led by RoCs CARGs		Adapted young adult CARG if group chooses to receive 3-monthly refills May be CATS led or group at educational institution

 Eligible for adapted model

 Not eligible for the model

HTS	Linkage	Combination prevention	ART initiation	First 12 months on ART	DSD for RoCs established on treatment	DSD for RoCs not established on ART: high VL	DSD for RoCs not established on ART: AHD (all children <5 years considered AHD)
WHEN  Presenting with HIV-related symptoms, TB, STIs Asymptomatic: use appropriate HIV HTS screening tool RoC-initiated testing and counselling Index case testing	Same day as HTS Aim for linkage to treatment and prevention within 7 days	Same day as HIV-negative test or within 7 days	Same day as HIV-positive test or within 7 days	Follow the intensive follow up schedule as outlined in Table 22 page 64 Take VL at month 6 and 12, then annually Use POC where available; otherwise, flag request as urgent	10-19 4-monthly clinical and refill visits 20-24 6-monthly clinical and refill visits	If elevated VL >50 copies/ml, give EAC (Page 102-106) and repeat VL 3 months after EAC 1	Assess for AHD at: <ul style="list-style-type: none"> Initiation Re-engagement (See Section 2.4.8) VL >50 copies/ml See intensive follow-up schedule (Table 22)
WHERE 	Positive tests: from facility-based testing, escort to ART services within facility From community-based testing: <ul style="list-style-type: none"> Escort to community or facility ART services Use the MoHCC referral form Negative test: link to combination prevention services	Same location as testing (priority PrEP sites, STI clinic, FP, ANC, PNC) or facilitated referral to PrEP site	Facility or community (as long as examination, weighing and, ideally, AHD assessment can be offered)	Facility Intensive adherence counselling session can be in the community or through telehealth (Table 22)	Facility or out of facility See Table 26 page 73 for DSD for HIV treatment model options	EAC 1 Facility EAC 2 ideally at facility, but where access is a challenge consider community or through telehealth	Facility If well but with low CD4, intensive follow-up could be in the community or through telehealth
WHO 	Person delivering the test CATS to be informed to follow up linkage Facility staff or village health workers distributing HIV/ST kits NB: a reactive self-test requires confirmatory testing at facility and community	Risk assessment: HTS provider VMCC: trained doctor, nurse or clinical officer PrEP: doctor, nurse	Doctor Nurse Primary counsellor CATs	Doctor Nurse Primary counsellor CATs	Doctor Nurse Primary counsellor CATs	Doctor Nurse Primary counsellor CATs for EAC	Clinical assessment: nurse, doctor POC tests: nurse, primary counsellor, laboratory technician, microscopist Additional community visit by VHW or CATS
WHAT 	HIV positive: facilitated referral to facility or community ART initiation HIV negative: referral to combination prevention services, including PrEP	Risk assessment, condoms, VMCC referral If eligible for PrEP, initiate and follow standard follow-up schedule	Clinical, psychosocial assessment Baseline investigations, including for AHD ART initiation	Clinical assessments Psychosocial support Take VL at month 6 and 12, then annually POC or flagged as urgent on laboratory request form	Offer adapted DSD models (page 76,86) Most commonly: Adolescent clubs, young mother clubs Psychosocial support	VL >50 copies refer for EAC 1 and 2 (Page 102-106) Repeat VL (POC or flagged as urgent to lab) 3 months after first EAC Switch to 2nd or 3rd line regimen as appropriate Psychosocial support	Diagnosis (history, exam and CD4) Screening (CrAg, TB LAM) and prevention CTX, TPT, fluconazole if CrAg positive Rapid ART initiation/switch Linkage IPD to OI/ART services Psychosocial support



2.9.3 Summary of DSD for non-pregnant adults (aged >24 years)

Table 39: DSD models for RoCs established on ART – non pregnant adults

	ADULTS
Frequency of clinical visits	Annual
Duration of ART refill	6 monthly Groups may choose 3 monthly
Individual model based at facility Fast-track	
Group model led by healthcare worker Club	
Individual model not based at facility Mobile outreach Health post ART delivery by VHW ART delivery by peer (CATS, key population supporter) Drop-in centre: key populations House of Smiles (for those with no fixed abode) “oMalayitsha” model for mobile populations	
Group model led by RoCs CARGs	



Eligible for standard model SOP

	HTS	Linkage	Combination prevention	ART initiation	First 12 months on ART	DSD for RoCs established on treatment	DSD for RoCs not established on ART: high VL	DSD for RoCs not established on ART: AHD (all children <5 years considered AHD)
WHEN 	Presenting with HIV-related symptoms, TB, STIs Asymptomatic: use adult HIV screening tool RoC-initiated testing and counselling	Same day as HTS or within 7 days for treatment and prevention	Same day as HIV-negative test or within 7 days	Same day as HIV-positive test or within 7 days	Follow schedule in Table 22, page 64 Offer intensive follow-up schedule if AHD or psychosocial problem identified (additional psychosocial support at week 2 and month 2; this can be at facility, community or through telehealth.) VL at month 6 and 12	Annual clinical visit 6-monthly ART refills	If elevated VL >50 copies/ml, give EAC (Pages 102-106) and repeat VL 3 months after EAC 1	Assess for AHD at: <ul style="list-style-type: none"> Initiation Re-engagement (See section 2.4.8) High viral load See intensive follow-up schedule
WHERE 	Predominantly facility Community mainly linked to index RoC testing and HIVST	Positive tests: from facility-based testing, escort to ART services within facility. If other chosen facility, use MoHCC referral form From community-based testing, escort to community or facility ART services or use the MoHCC referral form Negative test: link to combination prevention services	Same location as testing (priority PrEP sites, STI clinic, FP, ANC, PNC) or facilitated referral to PrEP site	Facility or community (as long as examination and, ideally, AHD assessment can be offered; (see section 2.4.3)	Facility Intensive counselling session can be in community or through telehealth	Facility or out of facility	EAC 1 Facility EAC 2 Ideally at facility, where access a challenge consider in community or through telehealth	Facility If well but with low CD4, intensive follow-up could be in the community or through telehealth
WHO 	Nurse, primary counsellor. RoC for HIVST (Distribution of self-test kits: CHWs)	Person delivering the test Facility staff or village health workers distributing HIVST kits	Risk assessment: HTS provider VMMC: trained doctor PrEP: doctor, nurse	Doctor Nurse Primary counsellor CATs	Doctor Nurse CHW, expert RoC according to model	Doctor Nurse Primary counsellor	Clinical assessment: nurse, doctor POC tests: nurse primary counsellor, laboratory technician, microscopist Additional community visit by VHW	Clinical assessment: nurse, doctor POC tests: nurse primary counsellor, laboratory technician, microscopist Additional community visit by VHW
WHAT 	Counselling Rapid test HIV self-test	HIV positive: facilitated referral to facility or community ART initiation HIV negative: referral to combination prevention services, including PrEP	Risk assessment, condoms, VMMC referral If PrEP, follow standard follow-up schedule	Clinical, psychosocial assessment Baseline investigations, including for AHD ART initiation	Clinical assessments Psychosocial support VL result at month 6 and month 12	Offered DSD models (Table 26 page 73) Psychosocial support	2 EAC sessions and repeat VL 3 months after EAC 1 Switch to 2nd or 3rd line as appropriate Psychosocial support	Diagnosis (history, exam and CD4) Screening (CrAg, TB LAM) and prevention CTX, TPT, fluconazole if CrAg positive Rapid initiation/switch Linkage IPD to OI/ART services Psychosocial support



2.9.4 DSD for pregnant and breastfeeding women

	HTS	Linkage	Combination prevention	ART initiation	First 12 months on ART	DSD for RoCs established on treatment	DSD for RoCs not established on ART: high VL	DSD for RoCs not established on treatment: AHD
WHEN 	All pregnant and breastfeeding women with negative or unknown status at: <ul style="list-style-type: none"> 1st ANC visit, ideally in the first trimester Retesting of women who previously tested negative in ANC in 3rd trimester or at delivery Women who tested negative in ANC retest at 6 weeks (14 weeks if tested at delivery) postnatal and 6 monthly visits at 6 weeks (pentavalent) and 9 months (measles) <p>Clinic opening hours HIV testing should be available 24 hours seven days a week on maternity wards.</p>	Same day as HTS or within 7 days	Same day as HIV-negative test or within 7 days. Initiate PrEP in pregnant and breastfeeding women at high risk of HIV transmission	Same day as HIV-positive test or within 7 days	Take VL at booking for those already on ART at ANC booking VL at month 3 for those newly initiated on ART in ANC For all pregnant and breastfeeding women on ART, repeat VL at 34-36 weeks' gestation, 3 months post-delivery and then 6 monthly until cessation of breastfeeding Use POC where available; otherwise flag request as urgent Follow intensive follow-up schedule (additional psychosocial support at week 2 and month 2; this can be at facility, community or through telehealth, (Table 22, page 64)	Focused ANC protocol recommends 8 ANC visits 6 monthly refills (4 monthly for <25 years old)	If elevated VL >50 copies/ml, give EAC (Pages 102-106) and repeat VL 3 months after EAC 1	Assess for AHD at: <ul style="list-style-type: none"> Initiation Re-engagement after lost to follow-up High viral load <p>See intensive follow-up schedule (Table 22, page 64)</p>
WHERE 	ANC Labour and delivery PNC Outreach ANC/PNC	Positive tests: to ART initiation in ANC; labour and delivery or PNC From community-based testing, escort to community initiation or facility ANC ART services or use the MoHCC referral form Negative test: link to combination prevention services in ANC or PNC/ FCH	Same location as testing: PrEP should be available at all FCH service points (ANC, labour and delivery, PNC)	Facility (ANC, PNC) or community (as long as examination and, ideally, AHD assessment can be offered)	Facility or out of facility Intensive counselling session can be community or telehealth	Facility (ANC, PNC) or out of facility See below for details of DSD options	EAC 1 Facility EAC 2 ideally at facility but where access a challenge out of facility or through telehealth	Facility If well but with low CD4, intensive follow-up could be out of facility or through telehealth
WHO 	Doctor Nurse Primary counsellor Self-tests can be given to the woman for partner testing VHW, CATS or young mentor mothers can distribute self-tests	Person delivering the test Self-tests NB: all reactive self-tests should have confirmatory testing by a health worker	Risk assessment: HTS provider PrEP: doctor, nurse	Doctor Nurse Primary counsellor Young mentor mother CATS	Doctor Nurse Primary counsellor Young mentor mother CATS	Doctor Nurse Primary counsellor Young mentor mother CATS	Doctor Nurse Primary counsellor Young mentor mother CATS	Clinical assessment: nurse, doctor POC tests: nurse primary counsellor, laboratory technician, microscopist Additional community visit by VHW or young mentor mother
WHAT 	Pre- and post-test counselling Rapid HIV test Distribution of self-tests from age 16	HIV positive: facilitated referral to facility HIV negative: referral to combination prevention services, including PrEP	Risk assessment, condoms, referral If eligible, initiate PrEP and follow standard follow-up schedule	Clinical assessments Psychosocial support VL according to schedule listed under when, POC or flagged as urgent to lab	Offered adapted DSD models (Pages 76,86) Most commonly: Mbereko clubs or young mother clubs Psychosocial support	2 EAC sessions if VL >50 copies/ml and repeat VL 3 months after EAC 1 Switch to 2nd or 3rd line as appropriate Psychosocial support	Diagnosis (history, exam and CD4) Screening (CrAg, TB LAM) and prevention CTX, TPT, fluconazole if CrAg positive and not in first trimester Rapid initiation/switch Linkage IPD to OI/ART Services Psychosocial support	

DSD options for women newly diagnosed in ANC or PNC

- Newly diagnosed women should follow the follow-up schedule, as outlined in table 22, page 64
- Adolescent and young mothers should be booked on the same day and form a young mothers club that is assisted by the young mentor mothers.
- Postnatally, women and their babies exposed to HIV can be seen as pairs or postpartum clubs formed. The goal is to ensure that the medical needs of the mother (ART, family planning, PNC care) and infant exposed to HIV (EID, NVP, AZT, CTX prophylaxis, immunizations, growth

monitoring) are met at the same visit. The club approach provides additional peer support.

- Once established on ART (more than six months on ART, no OIs, VL <50 copies in the past three months), the woman can receive six-monthly refills.
- All VL testing should be carried out according to clinical guidelines (month 3, week 34-36, three months postnatally and six monthly thereafter until cessation of breastfeeding) within the ANC and PNC clinic.
- Where available, POC VL should be used. If this is not available, flag the request on the form as urgent.

DSD options for women already established on ART

Although the preference would be for women to receive their care in ANC and FCH, women already in a DSD for HIV treatment model should have a choice of where they can receive their HIV care both antenatally and postnatally:

Antenatally

- The woman can stay in her DSD for HIV treatment model receiving her clinical visits at the OI/ART clinic and the refill through her chosen refill model.
OR
- The woman can transfer her care to ANC. ANC should continue to provide the woman with multi-month refills at the maximum duration available (6MMD).

In both options, the woman must attend all scheduled antenatal visits and the additional viral load monitoring should be coordinated at the ANC.

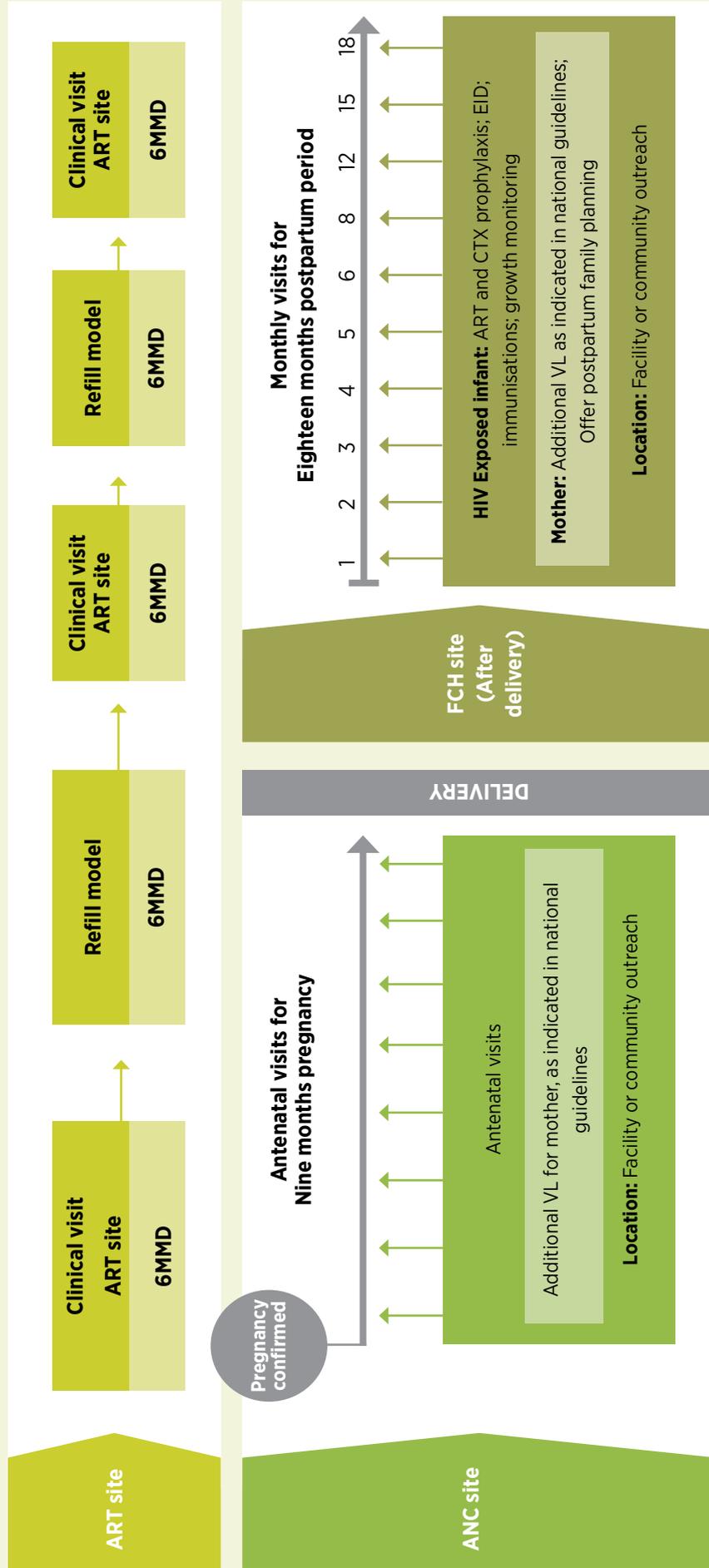
Postnatally

- The woman can stay in her DSD for HIV treatment model receiving her clinical visits at the ART clinic and the refill through her chosen refill model.
OR
- The woman becomes a member of a Mbereko postpartum club or attends as a mother-infant pair at FCH. The Mbereko club or mother-infant pair clinic should continue to provide the woman with multi-month refills (6MMD) while she attends with her baby exposed to HIV for monthly follow-up and receives integrated postpartum care for herself (including FP) and her baby (testing, prophylaxis and infant monitoring).

In both options, the mother and baby exposed to HIV should attend all PNC and baby follow-up scheduled visits.

Option: Stay in DSD model for ART
Attend extra ANC (counselling and additional VL) at FCH

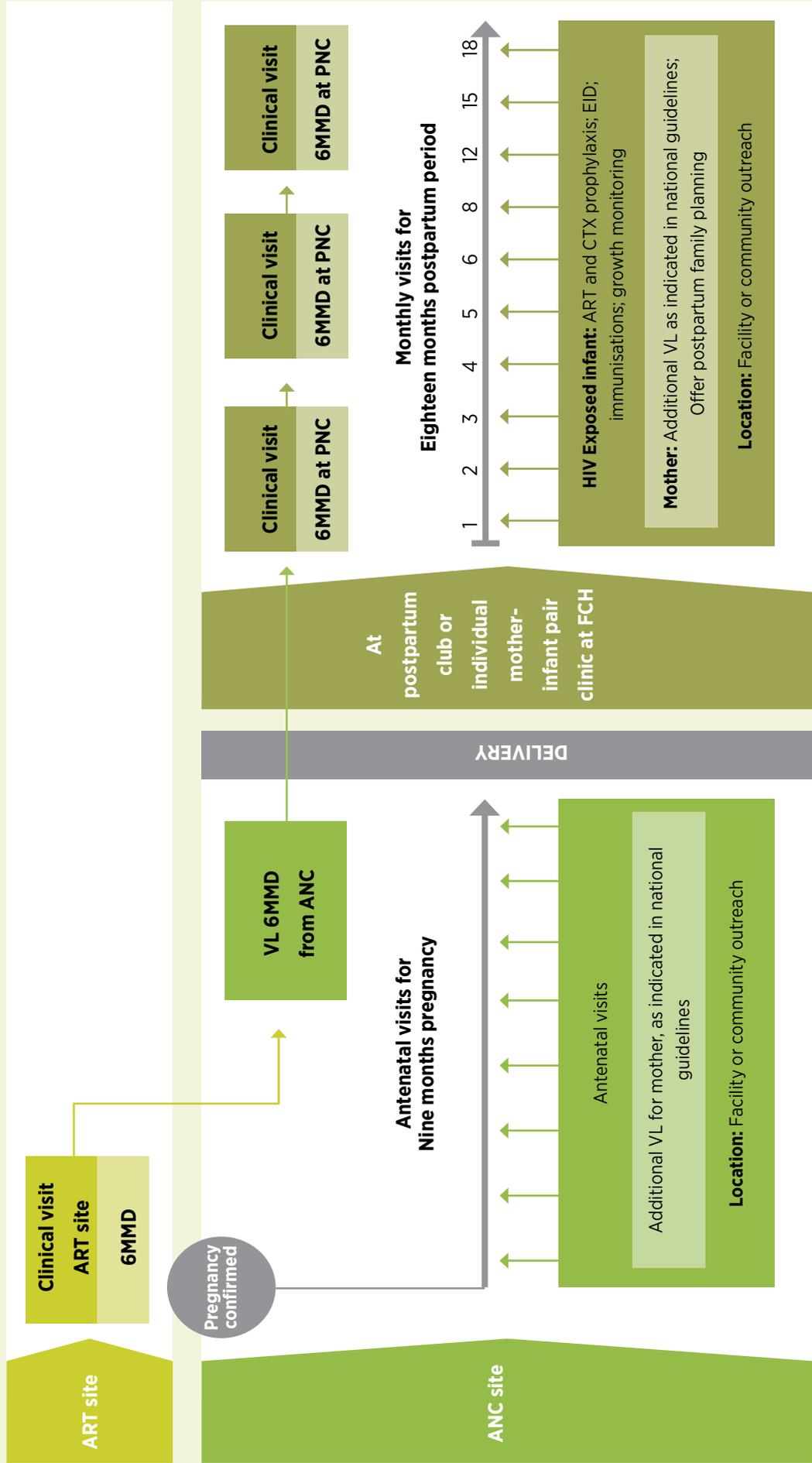
✓ Woman on ART | ✓ Viral load suppressed | ✓ Receiving six-monthly refills



Option: Transfer care to ANC

Attend ANC (counselling and additional VL) at ANC

✓ Woman on ART | ✓ Viral load suppressed | ✓ Receiving six-monthly refills





2.9.5 Differentiated service delivery for key populations

Key populations are defined as groups of people who have a high risk of contracting HIV and who experience a disproportionate burden of HIV in all epidemic settings.

Key populations include:

- Gay men and other men who have sex with men
- Sex workers
- Trans people
- People who use drugs
- Prisoners and other incarcerated people

Key populations can benefit from access to DSD and should not be excluded based on their drug use, occupation, gender identity or sexual orientation.

- Key populations are eligible for the same annual clinical visit for ART and six-monthly ART refills. They may require more frequent clinical visits depending on other medical needs.
- Key populations may be offered any of the four classified DSD models for RoCs established on ART.
- One of the most common models is ART delivery from a key population drop-in centre where comprehensive medical and psychosocial services are provided for the specific key population.
- The group models may be adapted. For example, running group models for a specific key population group may build peer support.

Table 40: DSD models for key populations established on ART

	KEY POPULATIONS
Frequency of clinical visits	Annual
Duration of ART refill	6 monthly Groups may choose 3 monthly
Individual model based at facility Fast-track	
Group model led by healthcare worker Club	Adapted key population club
Individual model not based at facility Mobile outreach Village health worker delivery Trained peer delivery – peer supporter Drop-in centres Mobile populations “oMalayitsha”	Adapted drop-in centre for key populations with integrated key population services Trained peer delivery
Group model led by RoCs CARGs	Adapted key population supporter-led CARG



Eligible for standard model SOP



Eligible for adapted model

Summary of DSD for key populations

	WHEN 	WHERE 	WHO 	WHAT 				
	<p>HTS</p> <p>Presenting with HIV-related symptoms, TB, STIs</p> <p>Asymptomatic, all key populations</p> <p>If negative, re-test key populations according to risk assessment (suggest 3 monthly)</p>	<p>Linkage</p> <p>Same day as HTS or within 7 days</p> <p>Positive tests: from facility-based testing, escort to ART services at chosen facility</p> <p>From community-based testing, escort to community (e.g. DIC) or facility ART services or use the MoHCC referral form</p> <p>Negative test: link to combination prevention services</p>	<p>Combination prevention</p> <p>Same day as HIV-negative test or within 7 days</p> <p>Same location as testing (priority PrEP sites, DIC, STI clinic, FP, ANC, PNC) or facilitated referral to PrEP site</p>	<p>ART initiation</p> <p>Same day as HIV-positive test or within 7 days</p> <p>Facility or community (e.g. DIC as long as examination and, ideally, AHD assessment can be offered)</p>	<p>First 12 months on ART</p> <p>Follow-up schedule (see Table 22, page 64)</p>	<p>DSD for RoCs established on treatment</p> <p>Annual clinical visit</p> <p>6-monthly refills</p> <p>Additional clinical visits dependant on medical needs</p>	<p>DSD for RoCs not established on ART: high VL</p> <p>If elevated VL >50 copies/ml, give EAC (Pages 102-106) and repeat VL 3 mths after EAC 1</p>	<p>DSD for RoCs not established on treatment: AHD</p> <p>Assess for AHD at:</p> <ul style="list-style-type: none"> Initiation Re-engagement High viral load <p>See intensive follow-up schedule</p>
	<p>Facility and community models with referral to prevention or treatment</p>	<p>Facility</p>	<p>Risk assessment: HTS provider</p> <p>VMMC: trained doctor</p> <p>PrEP: doctor, nurse</p>	<p>Clinical, psychosocial assessment</p> <p>Baseline investigations, including for AHD</p> <p>ART initiation</p>	<p>Facility</p>	<p>Facility or out of facility</p> <p>See Table 26, page 73 for DSD for HIV treatment model options</p>	<p>EAC 1 facility</p> <p>EAC 2 ideally at facility but if access a major challenge consider out of facility or through telehealth</p>	<p>Facility</p> <p>If well but with low CD4, intensive follow-up at week 2 and month 1 could be out of facility or through telehealth</p>
	<p>Nurse, primary counsellor, self-test from 16 years</p> <p>Distribution of self-test kits: VHWS, key population peer supporter</p>	<p>Person delivering the test</p> <p>Key population peer supporter to be informed to follow up linkage</p> <p>Facility staff, VHW or key population peer supporter distributing HIVST kits</p>	<p>Doctor</p> <p>Nurse</p> <p>Primary counsellor</p> <p>Psychosocial support: key population supporter</p>	<p>Clinical assessments</p> <p>Psychosocial support</p> <p>VL result at month 6 and 12</p>	<p>Doctor</p> <p>Nurse</p> <p>CHW</p> <p>ART distribution: key population supporter</p>	<p>Doctor</p> <p>Nurse</p> <p>Primary counsellor</p> <p>EAC 2: key population supporter</p>	<p>Clinical assessment: nurse, doctor</p> <p>POC tests: nurse</p> <p>Primary counsellor, lab</p> <p>Additional community visit by VHW or key population peer supporter</p>	<p>Identification (exam and CD4)</p> <p>Screening (CrAg, TB LAM) and prevention CTX, TPT, fluconazole if CrAg positive</p> <p>Rapid initiation/switch</p> <p>Linkage IPD to OPD</p> <p>Psychosocial support</p>
	<p>Counselling</p> <p>Rapid test</p> <p>Self-test from 16 years</p>	<p>Facilitated referral to facility or out of facility</p> <p>ART initiation</p> <p>Referral to combination prevention services, including PrEP</p>	<p>Risk assessment, condoms, VMMC referral</p> <p>If PrEP, follow follow-up schedule</p>	<p>Offered adapted DSD models (Page 76,80,86)</p> <p>Most commonly:</p> <p>Drop-in centre</p> <p>Adapted club or CARG consisting of specific key population members</p>	<p>Offered adapted DSD models (Page 76,80,86)</p> <p>Most commonly:</p> <p>Drop-in centre</p> <p>Adapted club or CARG consisting of specific key population members</p>	<p>EAC</p> <p>Switch to 2nd or 3rd line regimen</p> <p>Psychosocial support</p>	<p>Switch to 2nd or 3rd line regimen</p> <p>Psychosocial support</p>	

Additional medical needs for key populations

Key populations also will have specific additional medical needs that should be integrated into their clinical reviews.

Where feasible, these additional medical services should be available in the same clinic, on the same day and from the same healthcare worker who provides their ART.

	KEY POPULATIONS
All key populations	<p>Opportunistic infections, including TB</p> <p>Mental health (for example, depression and anxiety, alcohol or drug dependence)</p> <p>Physical and sexual violence</p> <p>Sexual health, including STIs and contraception</p>
Gay men and other men who have sex with men	<p>STIs</p> <p>Anal health</p>
Sex workers	<p>STIs</p> <p>Reproductive health needs</p>
Trans people	<p>STIs</p> <p>Hormonal therapies</p> <p>Anal health</p>
People who inject drugs	<p>Treatment of substance dependence (OAT)</p> <p>Screening and treatment of hepatitis B and C</p> <p>Skin infections</p> <p>Management of withdrawal symptoms</p> <p>Overdose</p>

2.9.6 DSD considerations for people living with HIV in prisons

RoCs living with HIV in prisons should have access to the minimum package of ART delivery services, as outlined in Chapter 1.1.

Due to issues of storage of ART in cells, consider a smaller multi-month refill depending on pill bottle size. If smaller durations have to be given, offer a refill system via a DSD model for RoCs established on treatment.

In prisons, the most common options offered may be fast-track or a group model managed by healthcare workers.

Additional services that should be offered include:

- Hepatitis B vaccination
- Condoms
- Clean needles and syringes
- TB screening

2.9.7 DSD considerations for people living with disabilities

ART services for people with disabilities (impaired hearing, vision, mobility) should be adapted wherever feasible. People living with HIV, especially children who acquired HIV vertically, have very high rates (up to 25%) of disability. Those at risk should be clinically assessed by their healthcare workers and referred, where possible, to rehabilitative services and access to assisted devices.

Ensuring that adequate access to treatment literacy information is achieved when initiating ART and in the first six months is especially important, and efforts should be made to access information in accessible formats.

Each district should have access to the list of services that provide support (such as braille communication and sign language services) in their locality and link RoCs with such services. Trained signers in a given locality should also be supported to be able to give HIV and ART education.

People living with disabilities should be offered the same range of DSD models for RoCs established on ART and may especially benefit from the out-of-facility and multi-month refills models.

2.9.8 DSD considerations for mobile populations

During ART initiation assessment and at subsequent clinical visits, all RoCs should be asked about their travel plans and whether they are required to travel for their work.

Once established on treatment, refill duration and the DSD model for RoCs established on treatment can be adapted to their needs.

The “oMalayitsha” model for mobile populations allows RoCs who work abroad or who have to travel for prolonged periods within or out of the country to continue to access ART from their home clinic. RoCs nominate a family member, friend or colleague to collect medication for them. Medication is then sent (by post, courier or the nominated representative) to the RoC who confirms receipt of the medication to the clinic.

It is encouraged that the RoC attends the clinic annually for their clinical review, but if not feasible and the RoC is able to access a VL test where they are based, this result can be sent to the facility and ongoing ART refills continued based on the results. If VL is elevated, the RoC should be encouraged to return for review or receive EAC by telehealth and the VL repeated after three months, as per the VL algorithm.

Clients who are temporarily away from home can attend any ART clinic and receive 28 days of treatment if they are about to run out of medication. If more than this is needed, they should be considered a transfer in.

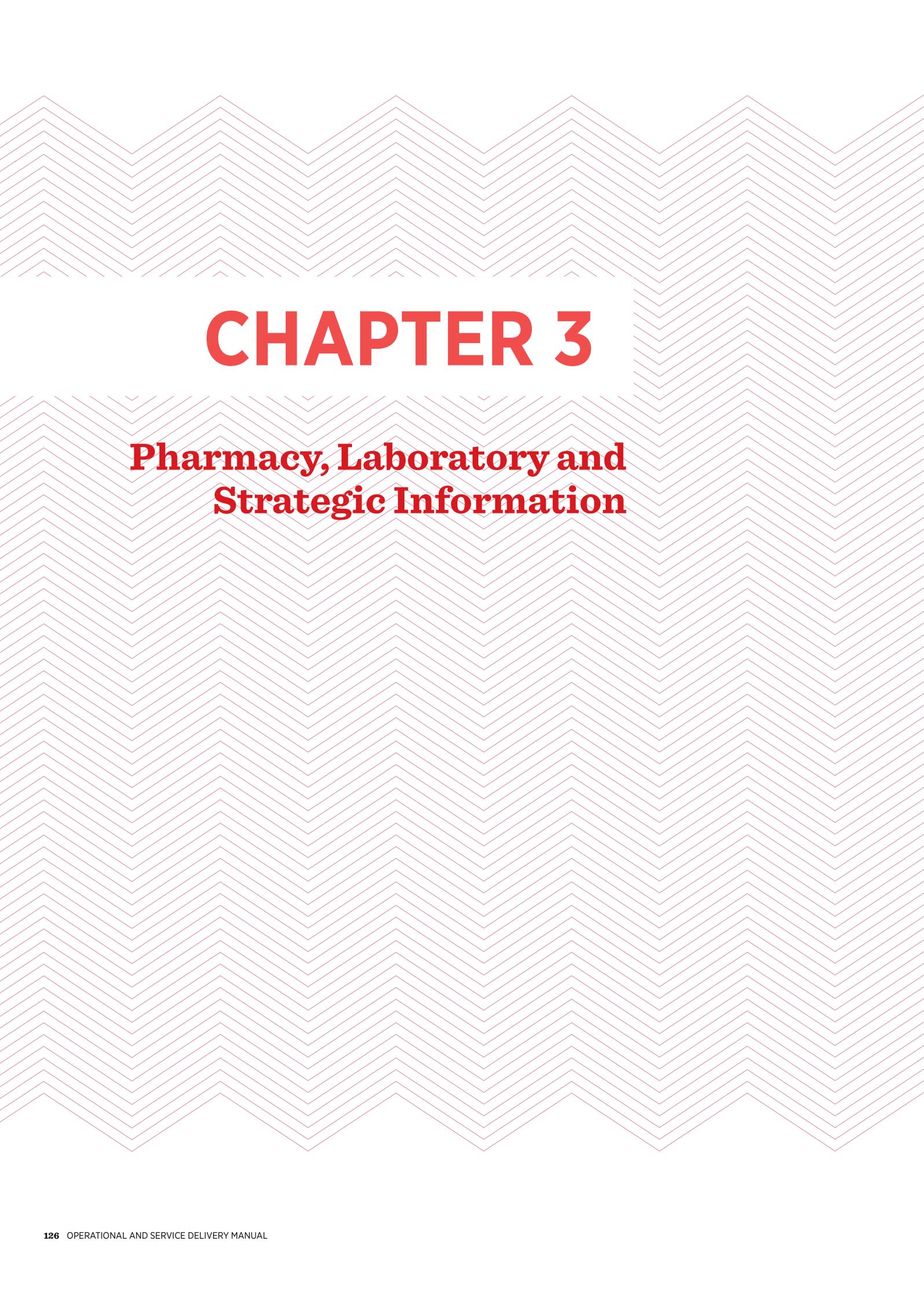
2.9.9 DSD models for RoCs with no fixed abode

People who are homeless are likely at high risk of HIV through sexual violence and drug use.

Outreach HTS should be organized for specific hotspots where the homeless congregate.

Specific hostels or drop-in centres for homeless RoCs should be considered as out-of-facility ART refill sites.

Where there are no specific hostels, delivery of ART refills to agreed community locations may be considered.

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CHAPTER 3

Pharmacy, Laboratory and Strategic Information

3.1 Pharmacy

Access to quality and affordable ARVs and essential medicines is a fundamental component of any HIV prevention, care and treatment programme. With the move to supply longer ART refill durations, the supply systems that support this change must be strengthened.

The following section outlines the key points that must be considered for effective pharmacy management related to the HIV prevention, care and treatment programme.

3.1.1 Duration of supply to RoCs

RoCs who are established on treatment should receive a maximum six-monthly supply of cotrimoxazole.

RoCs who are established on treatment should receive a maximum six-monthly supply of ARVs.

Integrated medication refills, such as oral contraceptives and other medicines for chronic conditions (hypertension and diabetes, among others), should be aligned with refills for ART to reduce the frequency at which the RoC visits the health facility.

3.1.2 Pharmacy requirements for decentralisation

To become an accredited ART site, certain requirements must be met regarding pharmacy management. These requirements can be found in the Manual for Primary Health Care Facility Comprehensive HIV/AIDS Capacity Assessment. The District Health Executive (DHE) has the responsibility of ensuring that the facility meets these standards. These standards also apply to any out-of-facility site that is dispensing or distributing ARVs, for example, drop-in centres, or to community cadres or peer distributors. Out-of-facility sites, such as drop-in centres, are unlikely to have such accreditation; hence, the hub facility supplying them should provide ARVs only for RoCs attending the following week. Likewise, community cadres or peer distributors should be given ARVs only for RoCs who are due for ART refills that week.

Ordering and supply

Reporting and ordering of both ARVs and essential medicines should be performed every three months, using the appropriate standard operating procedure for the level of the facility.

To ensure adequate supplies, accurate documentation in the ART pharmacy registers and stock cards is essential, along with accurate reporting of ART RoC data, stock on hand and adjustments consumption. **Electronic records and registers are being introduced and will replace hard copies in the short to medium term.**

All reports should be submitted by the due date to avoid delays in receiving supplies from the National Pharmaceutical Company of Zimbabwe (NatPharm).

NatPharm will supply **up to seven months of ARVs** and essential medicines to all facilities.

NatPharm will **directly deliver** both ARVs and essential medicines to health facilities **every three months**.

If stock levels are equal to one month or less:

- **Primary care facilities MUST URGENTLY ALERT THE DISTRICT PHARMACIST.**
- **Hospitals must place an emergency order with NatPharm.**

To be able to identify the need for urgent action, the pharmacy technician, pharmacist or nurse in charge of the clinic must ensure that stock records are kept correctly, that transactions are recorded as they occur, and that minimum and maximum stock levels are updated regularly.

It is good practice to review the ART needs for the coming month (especially for paediatric ARVs or RoCs on second-line or less common regimens) to ensure that the facility will be able to supply the RoCs.

The district hospital pharmacy manager is responsible for coordinating all emergency orders within the district, covering supply gaps from the district or moving stock between facilities as necessary and ensuring that correct emergency orders are submitted to NatPharm.

RoCs should be given a shorter duration of cotrimoxazole or ARVs for their refill only if efforts to receive an emergency order from NatPharm or receive supplies from another facility have failed. The reasons for this short supply should be explained to RoCs so they understand that this will be followed up and that all efforts will be made to ensure a six-monthly supply for RoCs established on treatment.

The role of the community in monitoring the supply chain of ARVs and essential medicines will also be a mechanism to report supply problems back to programme managers.

3.1.3 Pre-packing of medication for distribution

In certain refill models, as described in Section 2.6, pre-packing of ART prior to refill facilitates faster distribution by a nurse, for example, during a group model managed by healthcare workers, or allows a primary counsellor, community cadre, CATs, key population peer supporter or community ART group member to distribute medication to other RoCs.

Medication should be dispensed according to the refill prescription. Ideally, each box of ART should be labelled with the RoC's name and all medication placed in a bag, which is also labelled with the RoC's name.

3.1.4 Specific drugs for opportunistic infections

Fluconazole

Fluconazole is a B-level drug (that is, it can be initiated only at the hospital). If a RoC is initiated on fluconazole at the hospital for either oesophageal thrush or pre-emptive or maintenance treatment of cryptococcal meningitis and is then referred back to their local primary care clinic, the referring doctor must ensure that clear documentation is made in the RoC notebook regarding dosage and duration of treatment.

The district pharmacy manager must ensure that an adequate supply of fluconazole is sent to the receiving clinic that will be managing this RoC. This requires improved communication between clinicians and pharmacy management.

As the advanced HIV disease package (Section 2.8.2) is scaled up, mechanisms should be established to ensure access for RoCs in need of pre-emptive treatment with fluconazole and who may not be able to reach a secondary facility.

Aciclovir

Aciclovir is a C-level drug. Aciclovir should be available for the treatment of both genital herpes and herpes zoster at all health facility levels.

3.1.5 Key messages and reference materials

- Six-monthly supplies of ART, cotrimoxazole and other integrated medications can be given for RoCs established on treatment.
- Decentralized primary care clinics must meet the pharmacy requirements as outlined in the Manual for Primary Health Facility Comprehensive HIV and AIDS Capacity Assessment. All facilities should follow the ZAPS SOPs (for ordering) and the ZADS SOPs (for completion of ART registers and Page 1 of the Consumption/Requisition Form).
- Clear documentation of prescriptions dispensed should be made in the ART pharmacy register and RoC OI/ART care booklet.
- Reporting, ordering and supply of drugs will be performed every three months.
- **If stock levels are equal to one month or less, facilities MUST place an EMERGENCY ORDER.**

Reference materials

Zimbabwe Assisted Pull Systems (ZAPS) Standard Operating Procedure

Standard Operating Procedures Manual for the Zimbabwe ART Distribution System (ZADS)

3.2 Laboratory

3.2.1 Background

To implement the new clinical guidelines and strengthen service delivery across the cascade, increased support for laboratory and diagnostic services will be needed. Quality assurance systems for all testing services must be in place and acted on.

3.2.2 Supporting an integrated sample transport (IST) system

Sample transportation is an essential part of the provision of the HIV prevention, care and treatment minimum package. Not only do samples have to be delivered to the various testing laboratories across the tiered laboratory network, but their delivery also serves as a mechanism for result delivery from the testing laboratories back to the clinical facilities. Specimen transportation has now been integrated across programmes to maximise efficiencies. The MoHCC has developed and implemented an integrated sample transportation system to cover all health facilities; it moves samples from clinics to districts laboratory hubs where some are tested and others further referred to provincial and reference laboratories for more specialized testing,

The district laboratory sample transportation hubs are responsible for the development and management of riders and sample transportation schedules for all facilities in their districts to ensure frequent pickup and good quality sample transportation services. Performance indicators being monitored include total turnaround time (Pre-analytic, intralab and post analytic) and sample rejection rates. IST bikes and vehicles are fuelled and maintained through partner support; however, the directorate of laboratory services remains the custodian of the whole system.

3.2.3 Point-of-care testing

In line with WHO recommendations to supplement laboratory tests with point-of-care (POC) testing to provide quicker results for priority populations, the MoHCC has adopted several POC tests as detailed below:

- POC for early infant diagnosis is being provided through use of mPima and GeneXpert devices to improve testing coverage and access to EID testing, as well as improve turnaround times for diagnosis of infants exposed to HIV.

- POC for viral load is being provided through multiplexing on the GeneXpert machines. Only priority populations are considered for viral load testing via POC. The groups prioritized are children and adolescents, pregnant and breastfeeding women, those suspected of clinical failure and RoCs who have had previous high viral loads and are getting a second viral load after enhanced adherence counselling.
- POC tests have also been adopted to identify RoCs with AHD through the use of Visitect CD4, TB LAM and CrAg. These have been introduced at district and primary care facility levels for quick and efficient identification of RoCs presenting with AHD.
 - Identification of AHD using CD4 should be performed at ART initiation, for RoCs identified with a VL >1000 copies/ml and/or presenting as clinically unwell or re-engaging after more than three months without treatment (Section 2.4.8).
 - All RoCs who have a CD4 count ≤ 200 cells/mm³ are classified as AHD cases and will need follow-up screening for TB and cryptococcal meningitis using TB LAM and CrAg, respectively.

3.2.4 Quality management systems (QMS)

Ensuring a comprehensive QMS, including internal and external quality control, is essential.

QMSs are being implemented:

- Within the laboratory network and POC testing sites. All provincial and reference laboratories are accredited by the Southern African Development Community Accreditation Service (SADCAS) while district laboratories and POC testing sites are implementing quality management systems under the National Laboratory and POCT Certification system.
- At POC testing sites: To ensure accuracy of testing through training of testers, use of quality control samples, external quality assessments (EQA), standard operating procedures, standardized logbooks or electronic data management and reporting tools and implementation of rapid test continuous quality improvement (RTCQI).
- Ensure that all equipment at all facilities is maintained with both preventive and curative actions.
- Ensure regular competence assessment for all testers.

3.2.5 Viral load algorithm

The MoHCC has adopted the WHO 2021 guidelines for viral load monitoring.

With the new guidelines, results are categorized into three groups:

1. **Undetectable**, comprising any result that is reported as “target not detectable” (TND) and a figure that is ≤ 50 copies/ml.
2. **Low-level viraemia**, comprising results between 51 and 1000 copies/ml. This includes results reported as $< 838/833$ copies/ml for DBS samples.
3. **Unsuppressed**, comprising results that are > 1000 copies/ml.

VL results will be sent by hard copy, email and SMS. SMS messages indicate whether the result is normal, needs action or needs to be repeated due to a quality-related issue.

3.2.6 Role of the laboratory in mentorship and supportive supervision



When planning for district mentorship and supportive supervision, the district (or provincial) laboratory in charge must be included. Ongoing implementation of training and quality assurance will require scheduled visits to all sites. When new interventions, such as POC tests for AHD, are introduced, close liaison between the clinical mentoring staff and the laboratory in charge will be needed.

3.2.7 Key messages

The minimum package of laboratory investigations should include:

- **At a primary facility, the following are required:** HIV testing kits; DBS EID kits; pregnancy tests; syphilis rapid tests; Hb; urine dipstick; and any available point-of-care technology where appropriate (CD4, EID or viral load, CrAg and TB LAM, COVID-19).
- **At the district level, all of the above are required, plus:** TB diagnosis (smear or Xpert MTB/Rif); CrAg testing for blood and CSF (at minimum, access to Indian ink); creatinine (TDF use); CD4; and hepatitis B and C screening and COVID-19 rapid and PCR tests.
- **At the provincial or central level, all of the above are required, plus:** Viral load; and EID NAT.
- **At the national level, the following are required:** Genotyping; and TB culture and drug sensitivity testing.
- A dedicated, reliable, integrated sample transport system should be in place for all facilities, providing the minimum package of HIV prevention, care and treatment services.
- Health workers who perform a test (any rapid or point-of-care test) must be adequately trained for that task.
- Quality assurance (internal and external) must be in place for all tests and all sites performing those tests.
- The laboratory scientist/technician must participate in the district mentorship and supportive supervision teams and have scheduled visits to all sites.

3.3 Monitoring and evaluation

3.3.1 Background

Monitoring and evaluation (M&E) is an essential part of the programme cycle (Figure 23).

M&E has three main purposes:

- It helps us make informed decisions for programme and policy planning.
- It allows us to assess our performance. Often, our performance is assessed against set targets for specific indicators.
- It provides accountability. This may be required for reporting back to stakeholders.

3.3.2 Data management

There are four steps in data management:

- Data collection
- Data quality assessment (accuracy, completeness, timeliness, validity, reliability)
- Data analysis and interpretation
- Data for decision making and dissemination.

At the facility level, there are two copies of the report: one stays at the facility; one is sent to the district office.

In addition to ensuring that the data from the facility is submitted correctly, there must be strengthened **coordination between the facility and any community-based activities** in order for those activities to be reported under the facility catchment area.

3.3.3 Data dissemination

It is very important that we share and use the data we collect. Disseminating data is positive for:

- Transparency
- Accountability
- Sharing experiences
- Demonstrating our achievements against set targets

All sites must provide **a plan for dissemination of their data at their facility and to their DHE**. Possible options for doing this include:

- Use regular staff meetings to discuss what the data could be showing you; brainstorm on ideas for why a certain trend is happening.
- Plan a regular quarterly meeting at district level to share data among facilities. Use these sessions to see how other facilities are performing (e.g., how many paediatric initiations were performed or how many EID NAT samples performed were positive). Use the data to brainstorm and share experiences.

Figure 23: The programme cycle

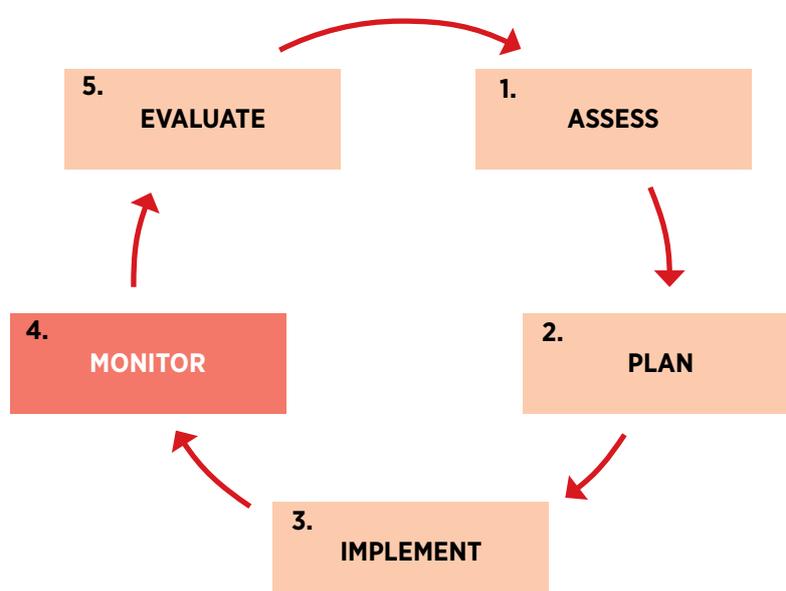
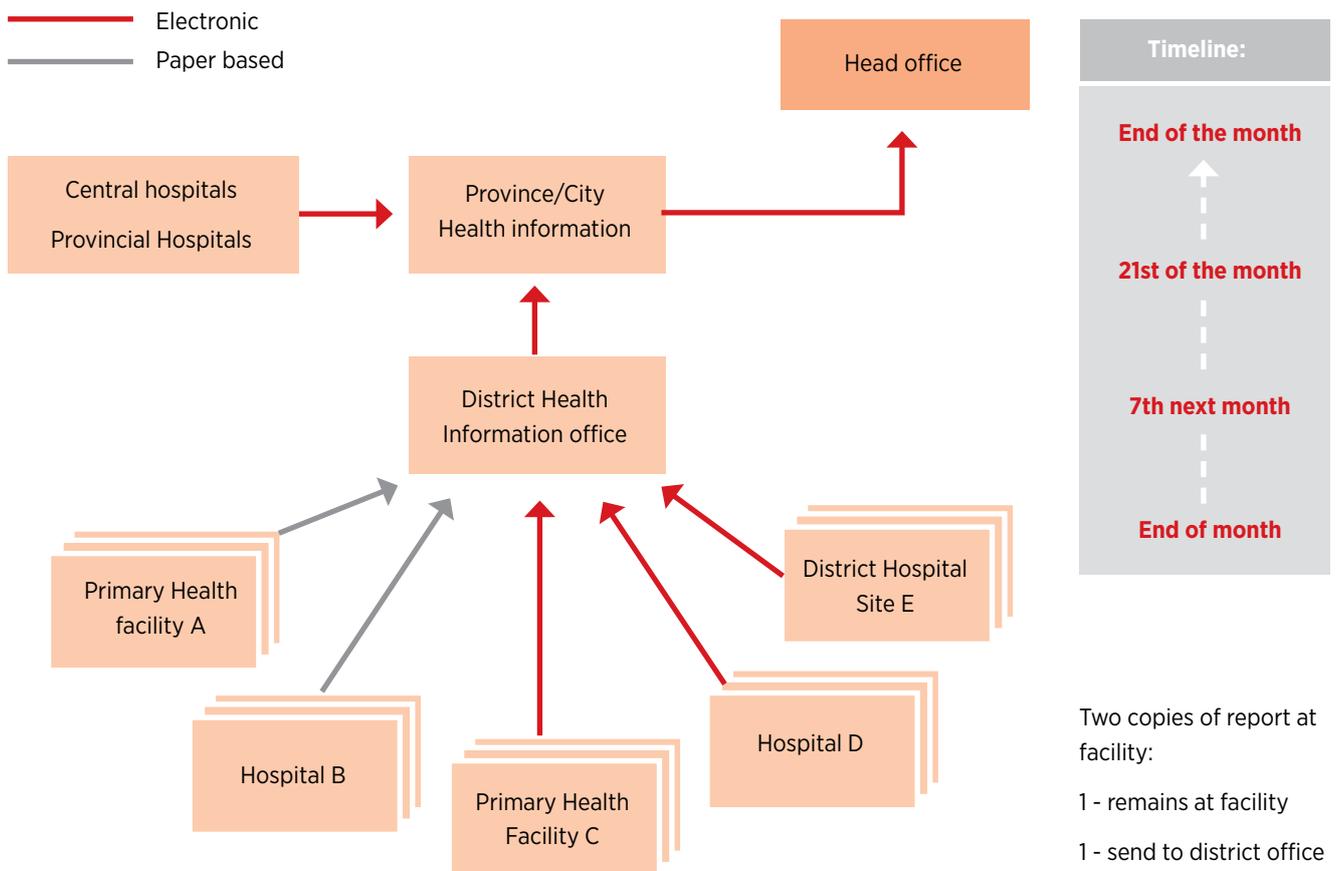


Figure 24: Expected flow of reports and timelines



- Use the data to inform the community about performance at the health facility. For example, are HIV testing and counselling rates decreasing, are very few men coming for testing, or are women coming very late to ANC? Use this data to encourage community mobilisation on these issues.
- Use the data to advocate and lobby for change. For example, workload data may allow lobbying for additional human resources.

3.3.4 Supporting national surveys

Facilities will be expected to participate in national surveys, such as HIV drug resistance, transmitted drug resistance, HIV sero-surveillance, ANC and adherence and retention surveys.

3.3.5 Key messages and reference materials

Monitoring and evaluation is performed in order for us to assess how effectively we are delivering services in our clinics, districts, provinces and at national level.

- Data must be collected, verified, analysed and then disseminated. If data is not fed back to the staff doing the job, it will not benefit client care. Each facility should have a plan for data dissemination.
- Track some simple indicators on a monthly basis using graphs in a cascade format on the wall (similar to how EPI activity is monitored), e.g., estimated number of people living with HIV, number of newly diagnosed HIV patients, number enrolled in care, number initiated on ART.
- Each facility must have a focal person for M&E who must have received adequate training.
- Data must be submitted at the correct time across all levels.

Reference materials

Monitoring and Evaluation Training Manual for HIV Testing and Counselling, Sexual and Reproductive Health prevention of mother to child transmission of HIV, opportunistic infections/ ART, TB and male circumcision

3.4 Quality improvement and implementation research

3.4.1.1 What is quality and quality improvement?

Quality in healthcare is defined as proper performance (according to standards) of interventions that are known to be safe, affordable to the society in question and can produce an impact on mortality, morbidity, disability and malnutrition.

Quality improvement (QI) is an interdisciplinary process designed to raise the standards of the delivery of preventive, diagnostic, therapeutic and rehabilitative measures to restore and improve health outcomes of individuals and populations.

The MoHCC plans to leverage QI initiatives to maintain and enhance the gains achieved in the HIV/TB programme. Linked to the building blocks of differentiated service delivery, processes for health service delivery consist of two major components:

- What is done (what care is provided)
- How it is done (when, where and by whom care is delivered)

Improved quality will be attained by addressing both at the same time while measuring implementation processes. QI initiatives need to identify a team (a collaborative approach of engaged stakeholders) that is close to the problem and involved in the underlying processes needed to help change the system.

Why is quality improvement important?

- Reduces morbidity and mortality of RoCs
- Reduces healthcare costs and waste of resources
- Enhances RoC satisfaction and provides care that is responsive to the needs and expectations of RoCs and communities
- Improves safety of staff, RoCs and communities
- Cultivates teamwork and effective communication
- Provides good reputation for health institutions and health workers
- Improves staff motivation
- Improves systems, not just individual provider performance

- Fosters learning from peers and spreading of effective practices
- Uses real-time clinic performance data to guide changes

QI frameworks and tools

An understanding of the frameworks used to develop quality improvement is essential when designing a local QI initiative. Further information can be found in the Zimbabwe National Quality Assurance and Quality Improvement Framework and the National Quality Management Program (QMP) Guide for the Improvement of HIV Prevention, Care, Treatment and Support Services in Zimbabwe. The framework also outlines specific initiatives related to the national HIV care and treatment programme.

Working as a QI collaborative

The team of stakeholders working on any QI project will need to go through the following phases:

- Preparation: Assess current standards, identify root causes, engage stakeholders, identify QI tasks and select sites.
- Implementation: Focus on one technical area, incorporating specific aims, measurable over time, coordinating key changes leading to the desired improvement. This may be through the Model for Improvement (MFI) with a series of Plan-Do-Study-Act (PDSA) cycles or the 5S-Kaizen-Total Quality Management (TQM) or the Define, Measure, Analyze, Improve and Control (DMAIC) QI methodologies.
- Spread strategy: Disseminate findings and how to scale up improvements.
- Monitor using an agreed set of process and outcome indicators where possible from existing sources.
- Monitor the sustainability of the QI initiative in the long term.

How to implement a quality improvement project

Teams should follow these ten steps when implementing QI projects.

1. Select a QI project

Choosing the right project is important for successful implementation. If the project is the first for the facility, the

team should choose a smaller project with the potential to produce a great impact and results that gain buy-in from other facility members. When choosing a project, teams should assess:

- Performance gap (difference between what you desire and your actual performance)
- Areas that front-line staff and RoCs think need improving
- Whether the project can be done on a small scale and show results within three months
- Whether implementing the projects will produce “early wins”
- The resistance level from staff, managers and leaders (choose an initial project that has low resistance)

2. Formulation of a QI problem statement

After selecting a QI project, the team should formulate a problem statement based on the gap identified. A problem statement should answer the following questions:

- What is the problem? (**Only 35% of HIV RoCs received the yearly routine viral load test.**)
- Who does it affect, where and when? (**HIV RoCs, facility X, by the end of October 2021**)
- What is the impact if not resolved? (**There is a possibility of RoCs with high viral load being missed with a risk of continuous spread of HIV if they remain undiagnosed. There is also a risk of drug resistance among RoCs with a high viral load, with a possibility of developing advanced disease and death.**)

3. Assemble a QI team

Selecting the right team is important for the successful implementation of a QI project. Teams can easily embrace change when they are involved in fixing the problem rather than being told how to fix it. A multidisciplinary team of four to eight individuals is recommended. Team members should be chosen based on their knowledge of, and involvement in, the processes that should be improved. Teams should include RoC representatives. The team should select members who will serve in the following capacities:

- **A QI team leader** is an individual with enough influence to help implement new changes and the authority to allocate the time and resources necessary to achieve the team’s aim. A team leader can be anyone with the will, motivation and understanding of the direction the team will take.
- **The QI coach** has familiarity with QI methods and understands the processes and procedures that are the focus of improvement efforts.
- **The QI project manager** is usually the QI team leader or QI coach who provides organization and management for the project. The project manager helps the team stay on track by developing timelines, monitoring progress on the project tasks, and facilitating team meetings.

4. Develop an aim statement (Answers the question: What are we trying to accomplish?)

An aim statement acts as the compass to guide and focus the team’s efforts. It is an explicit statement of the desired outcome of the improvement project. The aim statement should be **Specific, Measurable, Achievable, Relevant** and **Time-bound (SMART)**.

A good aim statement includes the following components:

- **What** are we trying to accomplish? (**Increase proportion of VL samples collected**)
- **Who** is the specific target population? (**from eligible HIV RoC on ART at facility X**)
- **What** are our measurable goals? (**from 25% to 75%**)
- **When** will this be completed? (**by December 2023**)

5. Conduct stakeholder analysis and sensitize them on the goals of the project

Stakeholder analysis is a process for identifying and assessing the importance of key people (individuals and groups) that may significantly influence the success of a QI project. Once the team has developed an aim statement, the team should brainstorm and identify people who:

- Have authority over or are donors of the process (includes clinic in-charge, administrators, partners, MoHCC, CDC, USAID, GF and BMGF; the list is not exhaustive)
- Are involved in, or touch, the process (clinic staff: nurses, doctors, couriers, laboratorians, expert RoCs)
- Are customers of the process and who can be either internal or external (RoCs or community, implementing partners)
- Are suppliers of the process (other clinics, implementing partners, community)

Once identified, all stakeholders should be updated on the progress throughout the life cycle of the QI project.

6. Develop measures (Answers the question: How will we know our changes are an improvement?)

Measurement (metric) helps show results and achievements toward the desired project goal and helps replace personal subjectivity. Instead, teams have data to show if the changes made are improving the current process. As the team members think about collecting data for the project, they should include the three types of measures that are linked to the project aim and goals. These measures are:

- **Outcome:** What are the ultimate results you are trying to achieve? (**The proportion of eligible RoCs with HIV with a VL sample collected**)
- **Process:** What do you do to achieve your outcome? (**Proportion of eligible RoCs with HIV who stick to their appointment VL dates**)
- **Balancing:** What could we “mess up” while trying to improve the process? (**Number of days with DBS bundle stock-outs at the facility**)

A metric should consist of a numerator and a denominator. Once measures are established, the team should develop a plan for collecting the data (for example, how it will be collected, the source, how often and who will collect it). Teams should not waste time and energy developing new data sources; rather, they should use already existing data collection tools as their data sources.

Data collection steps

1. Create a data collection log: Include all the data necessary to calculate the metric.
2. Collect baseline data: Using the data collection log, at the initiation of the project, collect baseline data to understand the magnitude of the problem.
3. Create a data collection plan.
4. Once data are collected, teams should use run charts to display the data. (Refer to the Quality Management Program Guide on how to create a run chart.)

7. Identify problems and causes of the performance gap

Before the team can make an improvement, it is important to understand the problems and causes of the performance gap. To understand the current process, the team should conduct a process mapping. To understand the problem, they should conduct root cause analysis using different tools, which include fishbone analysis and/or 5 Whys analysis. (Refer to the Quality Management Program guide on how to conduct process mapping, create a fishbone and 5 WHYS analysis.)

A process map is a visual representation of the sequence of steps in a process. Understanding the process as it currently operates is an important step in developing ideas about how to improve it. A process map will help teams and process users see the entire process and their place in the process. It clearly defines the current process or variation in the process; understand what is happening and identify wasteful steps and inefficiencies. Once the gaps have been identified, the team should create a visual picture of the future (improved) state process map and communicate. The improved process map can be used as a tool to orient new staff and train them according to the new standard work.

Cause and effect: Fishbone diagram

The fishbone diagram is a tool used to brainstorm and/or identify possible causes of a problem and sort the ideas into useful categories. It is a visual way to look at and organize critical thinking about potential causes. It assists teams in identifying multiple causes that may apply to one effect or problem.

The 5 WHYS

The 5 WHYS is a tool used to assist in ascertaining the underlying root cause of a problem. It helps teams understand and address the root cause, instead of a superficial cause. Eliminating the root cause will likely result in a lasting solution.

8. Identify and prioritize change ideas (Answers the question: What Changes Can We Make that will result in an improvement?)

Once the team has identified areas to focus the improvements and uncovered the root cause of the problem, it is time to identify potential change ideas for improvement. Teams should use driver diagrams to generate change ideas and the Impact and Effort Grid (IEG) to prioritize change ideas. (Refer to the Quality Management Program guide on how to create a driver diagram and IEG.)

A driver diagram is a visual display of a team's theory of what "drives", or contributes to, the achievement of a project aim. A driver diagram shows the relationship between the overall aim of the project, the primary drivers (sometimes called "key drivers") that contribute directly to achieving the aim, the secondary drivers that are components of the primary drivers, and specific change ideas to test for each secondary driver. Primary drivers are the most important influencers on the aim, and you will have only a few (we recommend two to five); secondary drivers are influencers on (or natural subsections of) the primary drivers, and you may have many.

The Impact and Effort Grid (IEG) is a tool to rank order and prioritize potential solutions according to the degree of impact and amount of effort required. It allows input from the team, especially those who know the process first hand, on the potential solutions. IEG helps teams identify and begin testing changes that are easiest to implement and will have the largest benefits to the organization (that is, "the biggest bang for your buck" and the "easy wins").

9. Test change ideas (PDSA cycle)

Once the team has identified and prioritized solutions, they should go ahead and test the change ideas before implementing any of the changes. Teams should be prepared for potential staff resistance, uncertainty about the effectiveness, and potential unintended consequences of a change; hence, it is important to test changes on a small scale (for example, one person, one form, one provider, one session) under different circumstances before implementing the changes. To do this, teams should use the Plan-Do-Study-Act (PDSA) cycle to help plan and carry out small tests for each change. The PDSA cycle guides the implementation of a change to see if the change is an improvement.

- Plan (plan a change): The team identifies a change and plans how it will implement this change.
- Do (try it out on a small scale): The team members test the proposed change to see whether it results in an improvement.
- Study (observe the results): Once the results are analysed and reviewed, the project team answers the following questions: Did we meet our goal? What worked and what didn't? Do we need additional test cycles?

- Act (refine the change as necessary): The team maximizes the impact of successful changes by increasing the sample size, involving providers and expanding the test cycles.

10. Sustaining and spreading improvements

Once the team has tested and identified changes that successfully improve the process, it is important to sustain and maintain them. Teams should focus on the following five areas when sustaining improvements:

- Involve and inform **senior leaders** (DHE, HMT, QIT).
- Assign **ownership** to an individual (QI coordinator, team lead; there is no right answer and it may vary by project).
- **Spread** improvements by involving all staff (training for staff, job performance, hiring criteria, job descriptions). For easy management of the change, all staff members should be involved in all stages of the project, from conceptualization to results and sustaining the gains.
- **Communicate** improvements to RoCs and allow them to create accountability.
- **Continuously measure** and monitor results to ensure the new process is still working. Teams should reduce the amount of data they have been collecting and choose one or two overall measures that will give them a snapshot of the process.

Project management tools

Teams should utilize the following three practical tools to ensure that the project stays on track and is completed successfully.

Project folder: It is a repository for the complete project documentation from outline to results, including all tests of change in one central location. Teams should create a project folder, which contains process maps (current and future state), fishbone analysis, collection plan, data collection tool with raw data, run charts, IEG, PDSAs, and project history with lessons learned.

Learning board/QI corner: It serves as a key communication tool for the project. Teams should identify a dedicated board or manila and mount it on a wall where the QI project is displayed so that the project, including aims and metrics over time, is visible to all. Displaying the QI project will also help teams create understanding and engagement for the project from all the staff.

Meeting facilitation: This is a process that ensures that meetings are conducted efficiently and effectively to achieve project goals. Teams should regularly hold meetings throughout the project period. Frequency depends on the project phase and timeframe: more frequently (for example, weekly or bi-weekly) in the early phases of the project or if the overall project timeframe is shorter. Teams should document minutes whenever they conduct a QI project meeting and file it in the project folder.

3.4.2 Implementation research

Implementation research is aimed at answering questions raised in real-world conditions with populations being affected by an intervention. These questions may be developed through use of health information systems to track cases or the impact of prevention and treatment. Implementation research is especially concerned with the users of the research who may be programme managers and clinicians on the ground. The outcomes of implementation research should lead directly to actions and policies to promote improved health service provision.

Some key questions to assess research designs or reports on implementation research are:

- Does the research clearly aim to answer a question concerning implementation?
- Does the research question clearly identify the primary audience for the research and how they would use the research?
- Is there a clear description of what is being implemented?
- Does the research involve an implementation strategy?
- Is the research conducted in a real-world setting?
- Does the research appropriately consider implementation outcome variables?
- Does the research appropriately consider context and other factors that influence implementation?

HIV/TB-related implementation research can be carried out by any healthcare worker in any MoHCC health facility under the guidance of the MoHCC. The Structured Operational Research and Training Initiative (SORT IT) has been adopted by the MoHCC to support staff to develop operational research concepts and protocols. For further information or support for carrying out implementation research, please contact the facility in charge.



APPENDICES

Appendix 1: Screening tool for intimate partner violence

Question	YES	NO
1. Has [partner's name] ever threatened to hurt you?		
2. Has [partner's name] ever hit, kicked, slapped, or otherwise physically hurt you?		
3. Has [partner's name] ever forced you to do something sexually that made you feel uncomfortable?		
4. Has your partner ever threatened you in other ways, such as divorce, desertion, lack of support, taking away access to your children, or other threats?		
5. Has your partner ever threatened to Kill you?		
6. Has your partner ever threatened to "out you" or reveal your sexual orientation, gender identity or status as a sex worker?		
7. Has your partner ever harm you on the basis of your sexual orientation, gender identity or status as a sex worker.		
If you answer yes to one question, provide first line support and refer to appropriate services		

Appendix 2: MTCT Risk Assessment for HIV negative pregnant and breastfeeding women

What: This tool should be used as a counselling aide to identify personal risk factors, provide information, and prompt risk reduction actions among all pregnant and breastfeeding women for MTCT risk at each antenatal (ANC) and post-delivery care appointment and/or child health appointments (growth monitoring, immunizations).

Who: Health care workers administer the tool during routine ANC and post-delivery (infants <24 months) consultations.

When: At the start of every care visit, ask women the relevant care questions and offer appropriate follow up support, services and referrals as recommended in MOHCC guidelines and service delivery standards

HIV NEGATIVE: WOMEN MTCT RISK SCREENING		
PART I: Priority MTCT Risks – check appropriate responses. Any response with * indicates woman is at high risk of MTCT and should receive immediate intervention.	YES	NO
1. Have you been HIV tested during the current pregnancy/breastfeeding period? Key message: Women who are HIV infected during pregnancy and breastfeeding are at increased risk of MTCT – timely HIV (re)testing is important for PMTCT.		*
2. Is your partner HIV positive and/or are you unaware of your partner's HIV status? Key message: HIV negative women in discordant couples or unaware of their partners status are at increased risk of HIV infection.	*	
3. Are you currently using an HIV prevention method (if pregnant) or dual protection method (if post-delivery)? Key message: All women should be supported to select and HIV prevention method that works for them and counselled on how to use it correctly and consistently.		*
4. Will you be travelling between now and your next scheduled ANC/PNC appointment? Key message: women who travel during pregnancy and breastfeeding may experience delays in accessing services that increase MTCT risk. If you will be travelling notify your home facility for a transfer letter.	*	
PART II: MTCT Red Flags – check appropriate responses. Any response with * indicates increased MTCT risk. Provide key messages, services and referrals to reduce risk as appropriate.	YES	NO
1. Are you less than 24 years of age? Key message: Young women may face challenges to access to information about HIV prevention, PMTCT, service uptake and ART adherence that may increase personal HIV risk and MTCT risk.	*	
2. Have you been accessing ANC and PNC services as recommended? Key message: Delayed/no uptake of essential PMTCT services during pregnancy and breastfeeding period can increase MTCT risk – refer to motivation package for schedule of services and planning tools.		*
3. Has your partner attended ANC or PNC with you? Key message: Male involvement in service uptake and couples HIV testing reduces MTCT risk.		*
4. Have you recently had or experienced any of the following signs or symptoms in the past month?		
i. Do you have a cough, night sweats, fever, weight loss? (assess for TB/Refer to TB screening tool)	*	
ii. Do you have vaginal/urethral discharge or genital sores? (assess for STI)	*	
iii During the past month, have you: Felt like you were losing interest or pleasure in doing things AND/OR Have you felt down, depressed or helpless? (assess for depression or anxiety SSQ14)	*	
Key message: Clients with TB, STIs, Depression or Anxiety may have reduced immune functioning or prevention behaviours and be at increased of HIV infection and MTCT. Screen and refer as appropriate.		
IMPORTANT: All MTCT Risk areas should be addressed with client and referrals and services provided documented as appropriate – with confirmation/follow-up on next appointment. Complete for all clients: Action taken: Referral made: Yes / No Referred to: _____		

Appendix 3: MTCT Risk Assessment for HIV positive pregnant and breastfeeding women

What: This tool should be used as a counselling aide to identify personal risk factors, provide information, and prompt risk reduction actions among all pregnant and breastfeeding women for MTCT risk at each antenatal (ANC) and post-delivery care appointment and/or child health appointments (growth monitoring, immunizations).

Who: Health care workers administer the tool during routine ANC and post-delivery (infants <24 months) consultations.

When: At the start of every care visit, ask women the relevant care questions and offer appropriate follow up support, services and referrals as recommended in MOHCC guidelines and service delivery standards

HIV POSITIVE: WOMEN MTCT RISK SCREENING		
PART I: Priority MTCT Risks – check appropriate responses. Any response with * indicates woman is at high risk of MTCT and should receive immediate intervention.	YES	NO
1. Are you taking HIV treatment (ART) as recommended? Key message: HIV positive women not on ART, or experiencing ART adherence challenges are at high risk of MTCT. If not on ART, initiate ART as soon as possible. If having adherence challenges refer for Enhanced Adherence Counselling immediately.		*
2. Does your partner know your HIV status (disclosure)? Key message: Women who have not disclosed their HIV status may face challenges to taking their ARVs as required and be at increased risk of MTCT. Male involvement in ANC and PNC helps to reduce MTCT risk. Discuss options for partner engagement.		*
3. Assess Viral Load Status of Clients Key message: Clients with a high viral load are at increased risk for MTCT. Pregnant and lactating women are priority populations for viral load monitoring for their own and the infant's health.		
Viral Load Sample Taken		*
Viral Load Result Received		*
Viral Load Suppressed (<1000 copies/mL)		*
4. Will you be travelling before your next scheduled appointment/medication pick-up? Key message: Women who travel away from their home area during pregnancy and breastfeeding are more likely to experience challenges to ART and service uptake which may increase MTCT risk. Let health care workers know of any plans to travel to ensure ART stocks and transfer letters		
PART II: MTCT Red Flags – check appropriate responses. Any response with * indicates increased MTCT risk. Provide key messages, services and referrals to reduce risk as appropriate.	YES	NO
1. Are you less than 24 years of age? Key message: Young women may face challenges to access to information about PMTCT, service uptake and ART adherence that may increase MTCT risk.	*	
Have you been accessing ANC and PNC services as recommended? Key message: Delayed/no uptake of essential PMTCT services during pregnancy and breastfeeding period can increase MTCT risk – refer to motivation package for schedule of services.		*
2. Has your partner attended ANC or PNC with you? Key message: Male involvement in service uptake and couples HIV testing reduces MTCT risk.		*

	YES	NO
3. Have you recently had or experienced any of the following signs or symptoms in the past month?		
i. Do you have a cough, night sweats, fever, weight loss? (assess for TB/Refer to TB screening tool)	*	
ii. Do you have vaginal/urethral discharge or genital sores? (assess for STI)	*	
iii During the past month, have you: Felt like you were losing interest or pleasure in doing things? AND/OR Have you felt down, depressed or helpless? (assess for depression or anxiety SSQ14)	*	
Key message: Clients with co-morbidities (TB, STIs, Depression or Anxiety) may have reduced immune functioning or face challenges to ART adherence and be at increased MTCT risk. Screen and refer as appropriate.		
4. Are you currently involved in any support groups or receiving psychosocial support? Key message: social support from friends, relatives, partners, or peers is very important to maintain good physical and mental health for ART adherence to reduce MTCT risk.		*
<p>IMPORTANT: All areas with * MTCT Risk should be addressed with client and documented as appropriate (counselling, services, referrals) and confirmation/follow-up on next appointment.</p> <p>Action taken:</p> <p>Referral made: Yes / No Referred to: _____</p>		

Appendix 4: Shona symptom questionnaire for the detection of depression and anxiety

Client name: _____ Client ID: _____ Date: _____

	Musvondo rapfuura: <i>During the course of the past week:</i>	Ehe Yes	Aiwa No
1	Pane pamaimboona muchinyanya kufungisisa kana kufunga zvakawanda here? <i>Did you sometimes think deeply or think about many things?</i>		
2	Pane pamaimbotadza kuisa pfungwa dzenyu panwechete here? <i>Did you find yourself sometimes failing to concentrate?</i>		
3	Maimboshatirwa kanakuita hashha zvenhando here? <i>Did you lose your temper or get annoyed over trivial matters?</i>		
4	Maimborota hope dzinotyisa kana dzisina kunaka here? <i>Did you have nightmares or bad dreams?</i>		
5	Maimboona kana kunzwa zvinhu zvangazvisinga onekwe kana kunzwikwa nevamwe? <i>Did you sometimes see or hear things others could not see or hear?</i>		
6	Mudumbu menyu maimborwa dza here? <i>Was your stomach aching?</i>		
7	Maimbovhundutswa nezvinhu zvisina mature here? <i>Were you frightened by trivial things?</i>		
8	Maimbota dza kurara kana kushaya hope here? <i>Did you sometimes fail to sleep or did you lose sleep?</i>		
9	Pane pamaimbonzwa muchiomera neupenyu zvekuti makambochema kana kuti makambonzwa kuda kuchema here? <i>Were there times when you felt life was so tough you cried or wanted to cry?</i>		
10	Maimbonzwa kuneta here? <i>Did you feel run down (tired)?</i>		
11	Pane pamaimboita pfungwa dzekuda kuzviuraya here? <i>Did you sometimes feel like committing suicide?</i>		
12	Mainzwa kusafara here mune zvamaiita zuva nezuva? <i>Were you generally unhappy with the things you were doing each day?</i>		
13	Basa renyu raive rave kusarira muma shure here? <i>Was your work lagging behind?</i>		
14	Mainzwa zvichikuomerai here kuti muzive kuti moita zvipi? <i>Did you feel you had problems deciding what to do?</i>		
	Scoring : Add together the number of questions to which the client responded “ yes”	Total Score:	

Scoring information

0-7: Re-screen in one year.

8-14: Provide brief counselling intervention. Refer for further assessment and to CBO for psychosocial services.

If a client scores 7 or less but is still suspected of mental health symptoms, they should be considered to have a positive score and receive a brief counselling intervention and referral as appropriate.

Action taken: _____		

Brief counselling:	Yes	No
Referral:	Yes	No
Referred to: _____		

Appendix 5: Checklist for the transitioning process to adult HIV care

What: This checklist is intended to support children and adolescents with age-appropriate knowledge and self-care milestones for successful transitions in HIV Care.

Instructions: Health care workers should review the checklist with children and adolescents during their clinical review. Any 'no' answers require counselling and/or referral to supportive services.

THE ADOLESCENT SHOULD BE ABLE TO DO THE FOLLOWING BEFORE TRANSITIONING TO THE NEXT STAGE		
Focus areas for Pediatrics (up to 10 years of age) (#1-2)	YES	NO
1. *Does the client know and understand his/her medical condition?		
2. *Does the client know the daily medications he/she takes? Knowledge of the names, doses, and frequency of the medications that he/she takes.		
Focus areas for early adolescence (10-14 years) (#1-7)	YES	NO
3. Does the client know his/her medical history? Is the adolescent able to narrate his/her medical history?		
4. *Does the client take his/her medications independently with no difficulties? If difficulties are present, what are they and how can they be managed?		
5. Does the client know or understand the blood tests that must be taken? Knowledge of importance of CD4 count and viral load testing.		
6. Does the Client know when, where and how to seek care and support for health-related concerns, especially in case of an acute illness? The client should have a reasonable transport option to visit a specific health facility and should be able to keep appointments with health care providers.		
7. *The client has a treatment buddy, family member, friend or neighbor whom they can contact in case of emergencies. If yes, who is it?		
Focus areas for late adolescence and early adulthood (15-24 years) (#1-15)	YES	NO
8. Is the client enrolled in any HIV+ Support Group or any other support group? If no, encourage and help them to join one.		
9. The client understands the common adverse events associated with the regimen that he/she is taking? (Especially DTG based regimens) The client should know what side effects to report to their health care worker immediately.		
10. The client does not abuse alcohol or any other drug? Probe client, caregiver or relative (Try not to be judgmental)		
11. Does the client understand the risk factors for STIs and HIV transmission? Risks of unprotected sex, multiple sexual partners, alcohol and substance use should be understood and how to prevent STI and HIV transmission and infection.		
12. Does the client understand how and when to disclose their HIV status to a partner?		
13. Does the client know any 3 contraception methods available?		
14. Does the client know how to prevent mother to child transmission?		
15. *Does the client have a suppressed viral load?		
<p>*Red flags that are contraindications for transitioning to adult oriented services.</p> <ul style="list-style-type: none"> • Aim for a total score of >11/15 and address all the red flags before transfer to adult care. • This checklist should be used together with clinical monitoring (viral load) to support children and caregivers with age appropriate referrals, support and differentiated care options. 		

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