

## CHAPTER 3

# SERVICE INTEGRATION, LINKAGES AND TRIAGE

### 3.1 ORGANIZING HIV SERVICES: INTEGRATION, LINKAGES AND TRIAGE

#### **Definitions as used in this *Operations Manual***

**Integration:** Deliver of services or multiple interventions together on the same patient visit by the same health worker or clinical team.

**Linkages:** Relationship between the health centre and services at the hospital or in the community, or between separate clinics organized within the same health centre, or between clinicians and the lab or pharmacy.

**Triage:** Sorting of patients into priority groups according to their needs and the resources available.

Service integration and linkages can improve care and reduce missed opportunities for key interventions such as HIV testing, provision of ART, PMTCT, and adherence support. Integration of care is an important strategy to improve patient retention in long-term HIV care and treatment. This chapter describes best practises in integration, linkages and triage, and highlights specific priority areas including integration of provider-initiated testing and counselling into clinical services; integration of HIV services into antenatal, labour and delivery, postpartum and newborn care; TB-HIV co-management; integration of family planning into maternal and HIV care; and integration of STI screening and management into chronic and acute care.

## 3.2 INTEGRATING SERVICES AT THE HEALTH CENTRE

### Definition of services integration

Service integration means blending either some of the elements of, or all aspects of one service into the regular functioning of another service. A key prerequisite to successful integration is the strength of the primary service into which elements of another service are to be integrated.

#### ■ Examples of integration:

- screening for tuberculosis in the chronic HIV care clinic;
- co-management of TB and ART treatment on the same visit by the same provider;
- offering PITC, clinical staging, CD4 counts and antiretroviral therapy at the antenatal clinic.

#### ■ Service integration is important because it can improve care since it:

- provides more comprehensive care to the patients;
- improves patient adherence to treatment when multiple interventions are required;
- avoids missed opportunities for key interventions and minimizes patients being 'lost' in the system;
- makes visits more efficient for the patient (avoids costly, time consuming, multiple visits by the patient and his/her family);
- makes visits more efficient for the clinical team, particularly at health centre level;
- reduces waiting times during a visit.

In a recent technical brief, WHO defined integrated service delivery as “the organization and management of health services so that people get the care they need, when they need it, in ways that are user friendly, achieve the desired results and provide value for money”. The district health team has a central role in fostering and overseeing integration at health centre level.

Another aspect of integration is the psychological integration of care into the patient's life. Encouraging patient self-management and actively engaging the patient and their family in long-term HIV care is essential. Therefore, it is crucial to understand and relate how services are delivered and integrated in order to support patient self-management. The time spent receiving care in the health centre is small compared to self-care at home (see chapter 4, *Community*).

## 3.2a APPLYING BEST PRACTISES IN INTEGRATION

Health centre staff can do a great deal to integrate HIV services. Strive for these basic principles when reorganizing health centre services:

### ■ Each health worker should be trained to provide multiple HIV services

- deliver multiple interventions/services by a single provider
- health workers should be able to provide key interventions during the same visit for different types of patients (see Table 1).



This may require additional training:

- training courses that integrate multiple interventions are available (IMAI, IMCI, IMPAC);
- training, mentorship, and supportive supervision are also essential, in addition to clinical training.

### ■ Support comprehensive care within the health centre team

- make efficient use of all health staff to provide all the HIV services the patient needs (as it is not efficient for every health worker to provide all services);
- focus on providing integrated services to the most common types of patients;
- refer patients with uncommon conditions that require a higher level of care to the district hospital, or to another health centre with more patients with the same condition, even though travelling there may be more inconvenient;
- if staff are overloaded with too many tasks, increase the number of staff, or shift tasks (see chapter 9, *Human resources*);
- shift some tasks to other members of the team.

*Example:* Nurses, who are often the main clinical providers at health centres, can shift provision of HIV testing and counselling to PLHIV lay counsellors.

### ■ Be flexible

- Discuss roles and linkages between two health workers in different clinics (programmes) in the same health centre, for example, under 5 care, HIV care, ANC, FP. This will help to prevent loss of patients. This applies primarily to larger, urban clinics. In small PHCs, there is limited staff.
- Identify best sequence and approach for each patient type.

### ■ Minimize queuing

- improve triage to identify services the patient requires (see section 3.13);
- screening for TB or HIV can be done for all patients while they queue for a general medical consult, so they do not have to queue again for these services after the consult.

### ■ **Minimize clinic visits**

- Bundle the delivery of several interventions into a single visit.
- Provide multiple services in a single visit, for example for a pregnant women, provide HIV care and treatment during the same visit as ANC care.
- Try to schedule appointments for different services on the same day for a patient e.g. TB and HIV clinic visits if the services are not provided at one point.

### ■ **Consider the family unit**

- HIV and TB are often family illnesses. When a person with TB or HIV is identified, it provides an opportunity for family members to access services.
- Minimize separate clinic visits for different family members – children are often brought to the health centre by their parents. Therefore, schedule mothers for chronic HIV care on the same day as their child's visit.
- Consider scheduling family days on Saturdays so families with working parents or children attending school can attend a single visit – in this way, children, caregivers and couples from one family can attend together.
- Think about alternate opening times for the centre in order to accommodate working hours of clients.

***Example:** One health centre scheduled clinic sessions on Saturday and Sunday for couples and families, and staff then took off extra time during the week.*

### ■ **Integrate care across the family**

Track the care of mother–child pairs:

- Record the mother's HIV status (HIV exposure) on the child's Road to Health (RTH) card.
- Consider longitudinal tracking of the family.
- Ensure that everyone in the family is tested for HIV and record the test result of all on patient charts – this is particularly important for fathers who may be working away from the family or older children who have not yet been tested.
- Identify discordant couples and offer counselling and other preventive services
- Help the family adhere to care and treatment by combined visits.

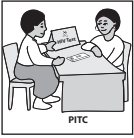
***Example:** Some teams draw a 'genogram' On the patient's chart to help with integrated care across the family. Others have implemented a family identification number that is a suffix or prefix to the unique identifier number.*

**Table 1: An integrated approach to providing services at various clinics organized at health centre level. Most patient types can receive 'one-stop-shop' care with this approach. This requires expanding health worker capacity to provide key HIV and TB interventions.**

	Triage/waiting area	Acute care/medical clinics – adult	Under 5 clinics (acute care, immunization)	TB clinic or corner	Chronic HIV care/ART	ANC, PP clinic	FP: IUD, injectables, refills	Adolescent-friendly clinic or room
Screen for TB • cough • other symptoms, signs	×	×	×	×	×	×	×	×
Clinical staging, CD4, ART initiation and monitoring				×	×	×		
PITC HIV	×	×	×	×	×	×	×	×
Prevention for negatives	×	×		×		×	×	×
Prevention with positives		×		×	×	×	×	×
Sexual and reproductive health, FP, reproductive choice counselling		×		×	×	×	×	×
Acute care – adults: pneumonia, diarrhoea, skin, mental health, etc., OI		×		×	×	×		×
Acute care – children: IMCI for high HIV prevalence settings			×		×	×		
HIV-exposed infant interventions: test, CTX, feeding counsel/support			×		×	×		
Palliative care: symptom management		×	×	×	×	×		×
STI screening and treatment		×			×	×	×	×
Malaria • case management • promote ITN use • Intermittent Preventive Therapy (IPT)		×	×		×	×		×

## 3.2b INTEGRATE PITC INTO ALL CLINICAL SERVICES

### ■ HIV testing and counselling should be recommended to:



- all pregnant women of unknown status, including L&D;
- all HIV-exposed infants or infants of mothers with unknown status;
- all partners and immediate family members of PLHIV including all their children;
- all sick adolescents and adults, or all with suggestive signs/symptoms (in general medical clinic, etc.) or all adolescents and adults attending clinic;
- all people suspected of having TB and TB patients;
- all patients with STIs;
- all children seen in paediatric health services;
- all health workers.

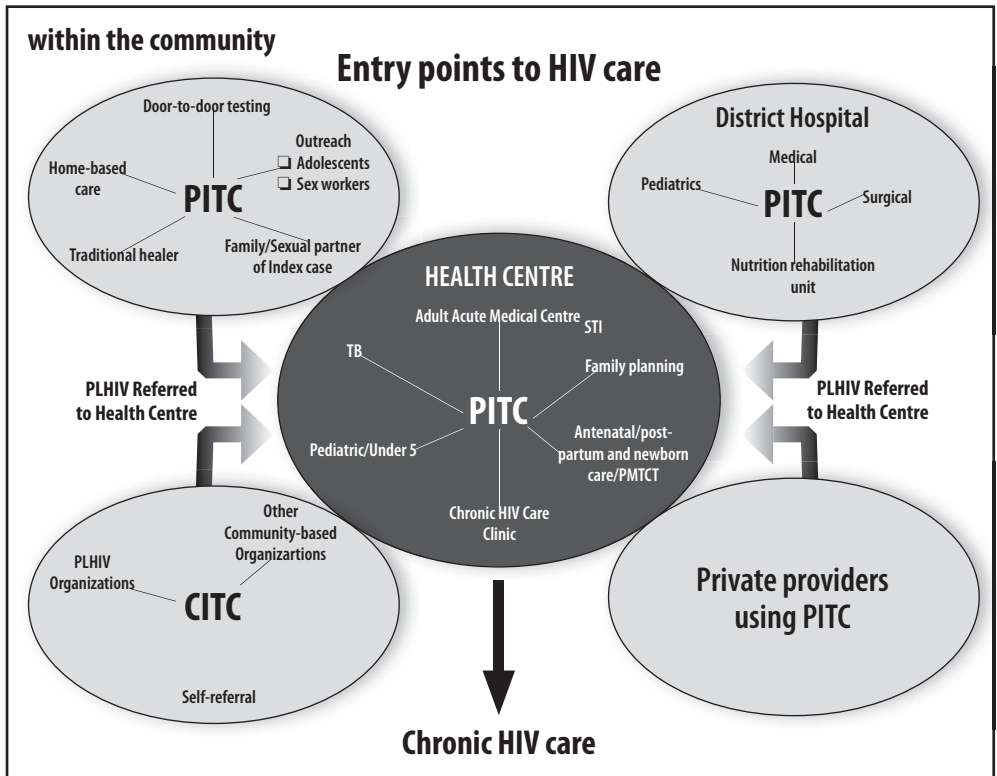
To accomplish this efficiently and effectively requires integrated provider-initiated HIV counselling and testing services delivered at settings in the public and private sectors, as well as making client-initiated HIV counselling and testing available to all.

In order to test all these patients, testing and counselling to be consistent with PITC, rapid HIV testing or DBS collection on the infant, and post-test counselling and testing need to be recommended by a range of health care providers working in all service delivery settings of your health centre including:

- out-patient acute and chronic clinics and primary care settings organized for adults, adolescents, children and infants (and STI clinics if organized separately at health centre level);
- routine immunization and nutrition services for children – ‘Under 5’ clinics;
- tuberculosis clinics (TB patients are more likely to be co-infected with HIV);
- antenatal/postpartum clinics and labour and delivery services;
- family planning clinics;
- community clinics, outreach services, and agencies that offer home-based testing for partners and children.

### ■ Create strong linkages from PITC services to chronic HIV care

All patients who test positive for HIV need to be effectively linked with chronic HIV care services. Determine whether the newly identified PLHIV needs emergency or fast-track HIV or TB care and treatment; act immediately if they do. Patients who do not require urgent care still require comprehensive assessment and care including clinical staging, CD4 count, cotrimoxazole prophylaxis, TB prevention, prevention with positives, and monitoring for Opportunistic Infections (OIs) and disease progression, so that ART and other interventions can be provided in a timely manner.



The recommendation of HIV testing and pre-test information should be integrated into the evaluation process for all patients with unknown HIV serostatus. This can be done several ways (and can vary depending on which clinic is operating that day and the staff available).

■ **Group pre-test information with HIV testing by lay provider before the patient sees the health worker**

This is an efficient way for a lay counsellor (or nurse) to give group pre-test education in the waiting area, where a large queue often forms in the morning.

Patients may consent to HIV testing while they queue for services – they move to a room labelled ‘Counselling Room’ where the lay counsellor immediately performs a rapid HIV test and then provides post-test counselling.

In the case of patients who declined to be tested while in the waiting room, the information can be re-emphasized during the consultation. The clinical provider then has another chance to recommend HIV testing and counselling.

Private space needs to be available for the actual test and post-test counselling. In a small health centre, this counselling room may be shared by all 'clinics'. Larger health centres with more specialized staff and spatial separation between clinics may have counselling rooms located in different areas of the health centre.

A disadvantage of this approach is that the other laboratory tests the patient may need are not done at the same time, and this may be less appropriate when managing people who are ill. However, it can also expedite the care of sick patients if results from a finger prick sample for HIV and malaria rapid tests are already done before seeing the provider. For antenatal clients, the HIV test can be done at the same time as several routine tests (done during pregnancy) before seeing the provider.

■ **Pre-test information and HIV testing by the health worker in the consultation room**

If there are a sufficient number of nurses or other health workers, the recommendation, pre-test information and HIV testing and counselling can be carried out in the consulting room. This has the advantage that the test is recommended by the health worker in the context of the clinical assessment, and can be combined with other laboratory tests.

■ **Pre-test information and recommendation of the HIV test by the health worker, then patient is sent to the laboratory or lay counsellor**

The health worker may recommend the HIV test and counselling during the clinical assessment. The worker provides the essential pre-test information, and then sends the patient to a lay counsellor (or the laboratory) for the actual test. The results and post-test counselling can be provided by a lay counsellor, and the result goes back to the health worker.

When provider-initiated testing and counselling is initially scaled up and demand for testing is high, consider scheduling more part-time lay counsellors during morning peak hours. When capacity is exceeded, it may be necessary to schedule return appointments for HIV testing and counselling. Making testing available outside usual working hours may also increase uptake .

■ **Partner and family testing**

Devise an efficient and acceptable approach to partner and family HIV testing and counselling, and internal referral of discordant couples for counselling (by people trained and experienced in couples counselling). Or refer these couples to community services for counselling.

### ■ Consider several approaches

Encourage couples to be tested and counselled together from the start.

From the chronic HIV clinic, set up mechanisms to facilitate partner and family testing within the clinic or at home. Special arrangements are particularly important for men; you can also consider weekend family clinics.

Link with home-based HIV testing and counselling. There are variations in how home-based HIV testing and counselling is organized with which set up varies. There may be an NGO or community testing programme that you can link. Your district or health centre may set up a home testing scheme (summarize key steps; put a cross-reference to tools for starting this). This may require you to release team members from their regular duties for this activity.

*Example: In Botswana, groups providing home-based care were missing many opportunities for HIV testing of family and partners. This was remedied by training the care groups, supplying them with HIV test kits, and supervising their work.*

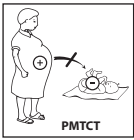
## 3.2c INTEGRATE CHRONIC HIV CARE OF MEN, NON-PREGNANT WOMEN AND CHILDREN

The HIV care clinic is for patients who have been diagnosed with HIV (usually during a previous visit to the outpatient department) and have been registered in chronic HIV care. During each encounter, the patient's needs for acute care, symptom management, prevention, and chronic HIV care and ART should be considered and provided for in a coordinated fashion; all within a single visit. If the patient has an infant or young child, their growth and development are monitored and immunizations and mebendazole and vitamin A prophylaxis are provided as appropriate for their age group.

Counselling and support to encourage treatment adherence, as well as psychosocial support and most of the prevention interventions for PLHIV (disclosure support, risk reduction, and discordant couples counselling and partner testing) can be provided by a lay counsellor (ART Aide or similar designation). Effective triage means that patients who are stable and do not need to see a clinical provider may be sent directly to the medication dispensing window for refills of drugs.

The health worker does the HIV clinical review, considers the clinical stage, and provides the appropriate clinical care. If there is an acute problem, specific treatment and advice and symptom management are provided. A summary of the care and specific information from each visit, as well as chronic HIV care interventions are recorded on the country-adapted HIV Care/ART Card.

### 3.2d INTEGRATE HIV SERVICES INTO ANTENATAL, LABOUR AND DELIVERY, POSTPARTUM AND NEWBORN CARE (PMTCT)



Your health centre likely already provides maternal and child services, and may already have a 'vertical' PMTCT project. Your country's national guidelines may have changed recently to encompass more effective ARV prophylaxis (AZT from 28 weeks), and to support more pregnant women receiving ART, both for their own health and to prevent MTCT. An integrated approach can help you place a larger number of pregnant women on ART.

In this instance, integration refers to HIV services included on the same visit with ANC, labour and delivery, postpartum and newborn services that aim to reduce maternal and newborn mortality. The HIV services include (but are not limited to) PMTCT interventions. Delivering HIV and maternal services together, means that clinical co-management of pregnancy and HIV, requires co-supervision by the district teams responsible for MCH and HIV programmes. They will need to decide: (1) which sites will provide full HIV services, including ART, at ANC sites<sup>1</sup>; (2) which will do only HIV testing and counselling, clinical and immunological staging, ARV prophylaxis, and refer for ART<sup>2</sup>; and (3) which will do only HIV testing and counselling, then refer for clinical staging, CD4, ARV prophylaxis and ART. This *Operations Manual* can be used to support either of the first two integrated approaches.

Full integration of HIV services, including providing ART to eligible pregnant women in ANC, requires recommending HIV testing and counselling for all pregnant women with unknown status.

The ANC clinic is an important entry point into HIV care for women who are HIV-positive, but do not know it. Pregnant women should have routine HIV testing and counselling recommended while queuing for the ANC clinic. After receiving HIV testing and counselling, they can return to their place in the queue and be evaluated by an ANC provider (nurse or midwife). Or their ANC provider can recommend HIV testing and counselling during the first visit and then carry out the test.

Nurses and midwives providing ANC care are need to be able to do clinical staging, to prepare and start pregnant women on ART and AZT prophylaxis, to monitor therapy (including determining haemoglobin), and to respond to side effects and opportunistic infections.

<sup>1</sup> Sometimes referred to as Model 1

<sup>2</sup> Model 2

ANC clients newly diagnosed with HIV can be immediately started on chronic HIV care on the same day by the nurse or midwife who has been trained in this care. This can minimize the chance that a pregnant woman will not return on another day to the HIV care clinic for PMTCT interventions.

***Example:** In many hospitals and large health centres, pregnant women with HIV are identified in the ANC clinic, but then are referred for HIV services located in another area of the facility, or even in another facility altogether. This often results in significant numbers of pregnant women “lost to follow-up”, with many of them not appearing at the chronic HIV care clinic, even if it is in the same facility. This is one of the reasons that pregnant women with HIV do not receive ART. There are many ways to solve this problem that has including elaborate methods of referral and tracking. For a health centre that is generally smaller and fewer staff than a hospital, integrating chronic HIV care including ART into the ANC clinic is an effective way of avoiding this problem.*

A pregnant woman who is HIV-positive needs chronic HIV care, including cotrimoxazole prophylaxis, ARV prophylaxis or ART. The CD4 test should be drawn on the same day and results obtained as soon as possible, to allow rapid initiation of ART when indicated. It is also particularly important to do intensified case finding for TB (a TB screen on each visit; one of the Three Is), and to pay careful attention to TB infection control in the ANC settings. A pregnant woman can receive these from the ANC clinical provider, who is trained in chronic HIV care. A separate clinic date is not necessary.

Clinical co-management at one site is efficient and more acceptable for pregnant women who often do not want to attend both the ANC clinic and a separate chronic HIV care clinic. This includes integrating HIV testing and counselling, clinical review, and cotrimoxazole prophylaxis into the clinic visits of HIV-exposed infants when they return for immunization, or when they come to the ‘Under 5’ clinic, and/or when they accompany their mother on chronic HIV care visits.

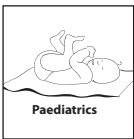
If their infants are to survive, it is important to emphasize to the mother that it is crucial and potentially life-saving for the child to return for cotrimoxazole and HIV testing at six weeks of age. The centre must ensure that service integration supports this emphasis.

If ART is not provided on-site, there needs to be an effective mechanism to refer HIV-infected women to care and treatment services. Referral forms facilitate the enrolment of HIV positive women into HIV care.

- The referral form is completed by the referring provider in the antenatal clinic.
- There should be a mechanism to support and ensure the patient is seen in the HIV care and treatment clinic; for example, by providing support for transportation, or involving a case manager or other support individual.
- Once the patient is seen and evaluated in the care and treatment clinic, there is follow-up and feedback to the antenatal clinic to confirm the patient was seen, and to coordinate care (linked care) .

### 3.2e INTEGRATE CARE OF HIV-EXPOSED INFANTS WITH THEIR MOTHERS

#### ■ HIV-positive post-partum woman with HIV-exposed infant



After delivery, both mother and infant (HIV-exposed) will need continued chronic HIV care. This is a key moment when both could be lost to follow-up that can have serious ramifications on the child's health. Strengthening the integration of services is particularly important for HIV-exposed children, all of whom will need prompt treatment if they are HIV-positive. Most settings have serious problems with lack of follow-up of infants of HIV-positive mothers who have received PMTCT interventions. This results in the majority of them being lost to follow-up for their HIV-exposed infants. Approximately half of HIV-infected children will die before their first birthday without appropriate HIV care and ART. PCP is a significant cause of death of HIV-infected children in the first 12 months of life; this could be prevented through cotrimoxazole prophylaxis.

Both the mother and infant should be seen for chronic HIV care by one clinical provider at the same time. This is easier for the mother, and increases the likelihood that she will come to the health centre regularly, compared to if she had to bring the infant for a separate visit (or go to a different facility). Integrated family-based care will help ensure that the HIV-exposed infant will have a DBS sent for virological HIV testing and will start cotrimoxazole at six weeks of age, along with ART if necessary. Infants should also receive routine child health services (immunization, prophylaxis, growth monitoring, etc.).

For patient flow within the health centre, there are two options. In Option 1, the mother and infant are referred to the HIV clinic for non-pregnant adult women and children (this can be integrated with the outpatient department in small health centres).

In Option 2, the mother and infant continue to attend a special HIV clinic day that is run by the ANC clinical provider. The advantage of this option – appropriate where

a high percentage of pregnant women have HIV – is that the ANC clinical provider and already has a relationship with the family.

The ‘Under 5’ clinic is another opportunity to identify HIV-positive children. Mothers bring their children to this clinic for services such as nutrition screening, immunizations or paediatric acute care. The clinical provider should refer children who fit the criteria for HIV testing (acutely ill, low weight, etc.) to the counselling room for rapid HIV testing or DBS.

### **3.2f INTEGRATE TB AND HIV CARE AND TREATMENT (TB-HIV CO-MANAGEMENT)**

HIV care should include the ‘Three Is’: intensified case finding for TB (screen for TB on each visit), INH preventive therapy, and TB infection control.

Assure rapid diagnosis and initiation of TB treatment:

All people with HIV who are not suspected of having TB should be eligible to be put on Isoniazid (INH) preventive therapy. Patients suspected of having TB should move to the front of the queue for all services and should undergo prompt evaluation for TB. Sputum specimens collection is carried out away from other people, and sputums are sent to a quality-assured laboratory for acid fast bacillus (AFB) smear and culture (when possible). Turn-around time for sputum AFB smear results (the time from sputum specimen collection to receiving the result) should not be more than 24 hours. A patient-tracking system assures that people suspected of having TB who are AFB smear-negative receive additional procedures (e.g. a chest x-ray and referral visits) or treatment as quickly as possible. Treatment for TB begins immediately once the diagnosis is made, and a plan for assuring adherence with treatment is developed.

If the total number of chronic HIV care patients is low, the clinical provider may evaluate the patient in one of the outpatient department rooms. Regular acute care patients may be seen in between chronic HIV care patients, or in the second outpatient department room if there is another clinical provider. If the number of chronic HIV care patients is high, additional rooms may be required (see *Infrastructure* chapter).

Having patients collect TB drugs and ARVs from the same window used by other patients can help reduce stigma. The pharmacy technician or whomever is dispensing drugs must ensure the patient understands the various medications and their dosing schedule, and that the patient is counselled further on treatment adherence.

TB patients co-infected with HIV need chronic HIV care as well as TB care. All HIV-infected TB patients need cotrimoxazole and ART. Many of them will be severely immunosuppressed and will be started on ART during TB treatment.



There are two options for HIV-positive TB patients. Option 1 is for the health centre to refer the co-infected TB patient to the HIV clinic immediately after diagnosis of HIV. This will mean that during TB treatment, the patient will have regular clinic appointments with the TB nurse for TB care, and with another clinical provider for chronic HIV care.

Option 2 is for the TB nurse to evaluate the patient and start cotrimoxazole and ART if necessary. This requires that the TB nurse be trained in IMAI Chronic HIV Care and IMAI TB Care with TB-HIV Co-management or comparable national guidelines. At the end of TB treatment, the patient can then continue to be followed in the HIV clinic for ongoing chronic HIV care.

**TB programme.** Given the high rate of TB-HIV co-infection, every effort should be made to strengthen the health centre's TB programme before starting up and while delivering HIV services. Sputum smear microscopy should either be available on-site or as a 'send-out' test. Patients diagnosed with TB should receive anti-TB drugs according to standard national DOTS protocols. Administering TB drugs outside of the National TB Programmes (NTP) guidelines can lead to drug resistance that is dangerous for the patient and community alike. If resistance is suspected, and when possible in all TB-HIV patients, sputum should be sent for culture and DST.

### **3.2g INTEGRATE FAMILY PLANNING AND SEXUAL AND REPRODUCTIVE HEALTH INTO HIV SERVICES AND MATERNAL CARE**

Reproductive health, family planning and HIV programmes share a common audience. Therefore, integration programmes can expand entry points for offering access to HIV, reproductive health (RH) and family planning (FP) services, reducing stigma, addressing health worker shortages, preventing unplanned pregnancies and mother-to-child transmission, and encouraging male participation. Models of integration (and linkages) include integrating reproductive health and family planning services within HIV programmes or HIV/AIDS services within RH/FP programmes. Examples of how this can be achieved include:

- Facility level linkages in which HIV and family planning are co-located in the same facility, with clients referred to a different part of the facility for different services;
- Room level linkages in which HIV and family planning rooms are rotated to avoid the problem of clients being identified as seeking HIV services;
- Provider level linkages in which health providers offer both HIV and RH/FP services at the same session.

Key areas for integration include:

- family planning and prevention of mother-to-child transmission (preventing unintended pregnancies decreases mother-to-child transmission). Family planning counselling, services and access to contraception, managing sexually transmitted infections, HIV prevention counselling, testing and care, should be part of maternal and child health services;
- family planning counselling and services linked with HIV testing and counselling. During HIV testing and counselling, family planning information and implications of HIV status can be discussed, with contraception (e.g. injectables, pills, condoms, female condoms) provided or made available through referral;
- provision of reproductive health/family planning within care and treatment programmes. Accurate information on the risks and benefits of child bearing, reproductive intentions and choices, and access to contraception and other reproductive health services should be an essential part of chronic HIV care.

### **3.2h INTEGRATE STI MANAGEMENT INTO ACUTE AND CHRONIC HIV CARE**

During chronic HIV care, the clinical review of PLHIV should address STI symptoms and yearly syphilis testing. If patients disclose behaviours that place them at increased risk of acquiring or transmitting an STI, it is important to emphasize to both patients and partners the need for more frequent screening, stronger condom promotion and risk reduction counselling.

Staff need to be trained in HIV/AIDS awareness, pre- and post-test counselling, rapid HIV testing, risk reduction counselling and HIV prevention ‘messaging’. Staff should also be trained in STI diagnosis and treatment, and should be aware of the most common STIs in their locality.

### **3.2i INTEGRATE HIV INTERVENTIONS INTO SERVICES FOR ADOLESCENTS**

Adolescents provide an example of why there is a special need for an integrated approach to health centre services due to social/behavioural factors. Most adolescent care and treatment is technically the same as for adults, but how it is delivered can have an impact on whether or not it succeeds.

It is therefore crucial to improve health centre organization and work methods to facilitate caring for adolescents. This includes:

- establishing special times for adolescents at the centre, for both acute care and for adolescent PLHIV in chronic care. As much as possible, provide a ‘one-stop shop’ in an adolescent-friendly clinic;

- identifying staff who are particularly good at managing adolescents;
- finding a sympathetic nurse or receptionist to facilitate adolescent care;
- using adolescent volunteers to make the clinic more adolescent-friendly;
- allowing drop-ins;
- organizing care so that the adolescents can avoid seeing adults they know;
- establishing an alternative waiting area;
- in some settings, providing contraception and pregnancy care in the general medical clinic (to avoid uncomfortable queues at family planning or antenatal clinics).

### 3.3 LINKAGES WITH OTHER SERVICES

#### ■ Definition of service linkages

Linkages refer to the relationships that the health centre maintains with other facilities and organizations in the district that provide services needed by patients, but are not provided directly by the health centre. Linkages include:

- the systematic and effective referral of patients and their families from one service to another within the district health system or network. Effective referral systems are important to ensure that a client receives the designated services. A health centre may have the capacity to provide integrated HIV services, but some care, treatment and support is still provided by outside agencies/services and this requires effective linkages. Community services used by patients complement the clinical services provided by the health centre, and effective linkages between the two are required
- internal linkages between clinics organized within the health centre or between clinicians and the pharmacy and lab.

A referral network works best when relationships between service providers are formalized and organizations agree on procedures. In order to establish collaboration between the health centre and community- and home-based programmes, a formal coordinating system should be organized. This coordinating system should incorporate an advisory team and a dedicated management team. This advisory team is often called the community advisory board (CAB); how health centres can set up and work with a CAB is described in the *Community* chapter that follows.

Examples of linkages within the district health network:



- Health centre staff refer a severely ill patient to the district hospital.
- the health centre provides clinical back-up and supervision to organizations in the community that provide home-based care and other needed services.
- The health centre HIV clinical team links with NGO-provided psychosocial support or mental health care outside the health centre.
- The health centre team links with community DOTS supporters and home-based carers.

Health centres provide primary health care, but also offer clinical supervision and other support to a wide range of health-related services in the community. In some countries, community activities are directed, provided or supervised by the district team. Linkages between services at these three levels of the district health system – hospital, health centre, and community – and integration of health services within the health centre are essential for successful HIV services within the continuum of care. In some countries, community services include health posts or dispensaries, which are intermediate between health centre and community. These can play an important role in ART refill and other services.

### 3.3a APPLYING BEST PRACTISES IN LINKAGES

**Establish a “referral network” to ensure linkages between the health centre and the community and district hospital:**

- An effective referral network will expedite access to needed services.
- Identify gaps in services and take steps to bridge them.
- Identify one organization to take a leading role as a coordinating organization for referrals.
- Track referrals between the organizations in the network.
- Be aware that facilities behave differently – at some of them referral works; at others patients are lost.



**Allocate specific health centre staff to be responsible for linking patients to other services:**

- Consider employing and training lay ‘case managers.’ Lay people, especially expert patients, can be very effective in linking patients with services outside the health centre.

**Involve PLHIV and other active community members in identifying available organizations able to provide different kinds of paramedical and psychosocial support.**

**Identify a contact person within each organization who can make sure services are effectively and rapidly provided.**

**Set up preparatory meetings with the contact person/representative from each service organization to:**

- present the most common needs of adults and children affected by HIV and their families.
- clarify the services their organization can provide;
- discuss ways to link with the health centre for services needed by patients and their family;

- Make sure everyone understands the meaning of ‘shared confidentiality’.

**Keep an updated contact list for both clinical- and community-based services:**

- See the sample resource/contact list in Annex 2-1;
- See the section on communications/cell phones in chapter 5, *Infrastructure*

**Create a system to document linkages:**

Define the usual patterns of linkages within the district health network.

**Create feedback loops** to inform the organization initiating the referral so it knows that the requested service has been delivered and has met the needs of the client.

- Document outcomes of referral.
- Develop a form for referral and back-referral to keep track of patients and ensure the quality of the linkages. The referral form should include information about where the patients should go, when then should go, who they are looking for, what they should expect to receive/why they are being referred.

**Host regular meetings of the multi-disciplinary team:**

- Multi-disciplinary team members come from within and outside the health centre.
- Pay attention to both internal and external linkages. This should include key community-based organizations (CBOs) and other external services, as well as counsellors, laboratory and pharmacy (internal) services.
- Facilitate communication.

*Example of effective linkages from a project in remote rural Kenya: Community health workers (CHWs) were given a cell phone, solar charger and extra batteries so they can make calls in emergencies.*

**Be active to avoid losing patients when they are referred:**

- Accompanying patients is much more effective than sending them alone with a referral note.
- Ensure that intended referrals happened (both internally and externally) by cross linking registers and holding regular meetings between services. Referral notes with a carbon copy can help during follow-up. Meetings between teams to review patients can happen during continuing medical education (CME) collaborative meetings, etc (if these are funded).

*Example: Use a simple index card for each HIV-positive mother to be sure each infant is recorded in the 'Under 5' HIV-exposed register.*

### 3.4 TRIAGE

#### ■ Definition of triage

Triage is the sorting of patients into priority groups according to their needs and the resources available. Triage is an important organizing principle for any health centre that manages large numbers of patients. Making HIV services available at health centre level both increases the patient load and brings in more patients with severe illness from opportunistic infections. In addition, quality management of HIV patients requires a special 'HIV triage' to be sure that patients at high risk receive priority interventions rapidly, both for treatment and prevention of transmission, as well as to prioritize tracing and tracking of patients lost to follow-up. Some deaths can be prevented by quickly identifying very sick children and adults on arrival at a centre and starting treatment without delay.

#### 3.4a APPLY BEST PRACTISES IN TRIAGE

##### ■ Set up effective triage for all patients.

WHO has developed simple algorithms based on an ABC approach (Airway-Breathing-Circulation) for children, women of childbearing age, and other adults. These allow rapid assessment of emergency cases that require immediate emergency treatment; priority cases that need rapid attention; and non-urgent cases that can wait their turn in the queue. Ideally, using this ABC approach, patients should be immediately checked on arrival in the queue or waiting area. All staff should be prepared to carry out the simple rapid assessment to identify the few patients who need immediate treatment. Health workers trained in IMCI have learned to assess first for danger signs.

##### ■ Set up effective HIV triage to identify the HIV-infected patients who need urgent treatment or preventive interventions.

In addition to the basic medical and surgical triage applicable to all patients, HIV/AIDS has special priority signs and circumstances that require a special 'HIV triage' to ensure that urgent interventions are delivered in a timely fashion.

##### ■ HIV triage needs to occur whenever a new HIV infection is diagnosed; on each routine chronic HIV care visit; and whenever a PLHIV returns for an acute problem.

Triage is the first step in a chronic HIV care visit, when the patient's card/record is retrieved, the patient is weighed, and a decision made as to whether the he/she needs to see a health worker (for a scheduled visit or a new symptom).

■ **HIV triage helps you fast track HIV patients requiring urgent interventions.**

Some newly identified PLHIV need urgent or ‘fast-track’ HIV care and treatment and preventive interventions. Workers carrying out PITC and the entire clinical team need to know who needs which HIV services and what needs to be fast tracked. In other words, how quickly should particular patients receive certain services?

Identify patients at high risk of transmitting HIV and treat these as ‘HIV urgencies’. For example, HIV-positive pregnant women need rapid adherence preparation and initiation of ART or AZT prophylaxis.

Fast track HIV-exposed infants for early HIV testing, diagnosis, cotrimoxazole, and early treatment.

Patients who are clinical stage 3 or 4 need to be fast tracked to start cotrimoxazole and prepare for ART. They should not leave the clinic without cotrimoxazole; and if stage 3, without a CD4, etc.

- Triage should also identify coughing patients for action to reduce TB transmission:
  - Separate coughing patients and ask them to cover their cough.
  - Fast track TB diagnosis (see the TB infection control section in *Infrastructure* chapter 4).
  - Do not be lax about patients apparently stable on ART; each patient periodically needs a clinical review, including a TB screen even if they appear well. If they do not have TB, they should receive INH prophylaxis.

### **3.5 PATIENT FLOW: PLAN HOW PEOPLE MOVE THROUGH YOUR HEALTH CENTRE TO RECEIVE VARIOUS HIV SERVICES**

Renovating or redesigning a health centre to accommodate integrated HIV services requires careful attention to good patient flow for a typical visit.

The best advice is: “Walk in your patient’s shoes!” Move from one area to the next as a patient would during a typical visit. Figure out the best approach for each patient type, examining the typical services they will require at each visit. (see Figure 4, Chapter 5, p.71). Look for barriers and inconveniences.

Patient flow within the health centre is included in the description for each patient type, using a floor plan of a hypothetical small health centre (see table below). Replace

this with your health centre's floor plan, and use the table to help work out an efficient flow for your patients. Work as a team to devise a set of standard operating procedures that make it clear to patients and staff how different types of patients and families move through the health centre. This involves:

- effective triage to prioritize care (see next section);
- how to integrate PITC efficiently for different patient types;
- how people enrol for HIV services;
- different flow plans for those 'Pre-ART' and those eligible for ART;
- the records that are kept and the information recorded in them (see chapter 6, *Monitoring services*);
- how patients gain access to results of tests or to medications;
- how referral happens;
- how samples, test results, information flow from one location in the health centre to another;
- when and how follow-up occurs.

Develop a patient evaluation, if care flow plan, with specific plans for those who need testing and their initial evaluation if positive. Then note all subsequent steps required. All staff members need to know the sequence of activities and patient flow for each category so they know where to send people. Good organization of space and patient flow should:

- make visits easy for the patient and his/her family and for the providers;
- enhance uptake of HIV testing (assure ease of access to HIV testing and counselling from the areas providing outpatient acute care, antenatal care and TB care);
- ensure the patient's right to privacy;
- minimize waiting time;
- help with TB infection control;
- strengthen integration of services and linkages between services;
- improve the quality of care.

Having clear documentation of standard operating procedures also assists people to step in and do tasks for which they would not normally be responsible, and also helps to quickly orient new staff.

This section describes how integrated HIV services may be provided for a number of different patient types. This requires country adaptation, and then should be used by each health centre team to concretely plan efficient patient flow, clinic hours, etc.

### 3.6 QUALITY MANAGEMENT OF INTEGRATION, LINKAGES AND TRIAGE

How can you make sure that quality integration, linkages and triage are taking place at your health centre? Improvements in quality need to be fully integrated with service delivery. Achieving and improving quality of care is a slow, persistent process. Several types of information can help:

- **Assess what happens when specific types of patients and/or families attend your health centre. Then assess what happens by patient type: are integrated care and adequate triage and linkages being provided?**
  - Use relevant routine data you are already collecting with the patient monitoring system on the patient cards; focus on just one or two indicators.
  - Use a simple patient mapping tool (how long is the visit? Is the visit “one-stop”, or multiple stops? Is there engagement in the next leg of the service?)
  - Is integrated care being provided, by patient type?
  - Reconcile patient records and registers (by sampling). Have other family members been tested? Are patients who test HIV-positive enrolled in care? Check follow up on CD4 and TB sputum testing. What happened after patient referral to hospital or to a community-based service – was the care plan shared and discussed; is there a back-referral note? Are the children of HIV-positive pregnant women tested and followed up?
  - Is a system in place for following families longitudinally? Are family units engaged in care and treatment?
  
- **Observe whether triage for severely ill patients is taking place at the door and in the queue.**
  
- **Is adequate ‘HIV triage’ taking place? Are PLHIV who need urgent interventions identified and receiving them in a timely fashion?**
  
- **Are well patients with HIV returning for care on a regular basis? Identify key informants on the community advisory board and ask for their assessment of service integration. Is the ‘one-stop-shop’ successful? Are there problems with linked services at hospital and in the community?**
  
- **Look at both longer- and shorter-term outcomes. Are patients being lost to follow up?**