



World Health
Organization

Operations Manual for Delivery of HIV Prevention, Care and Treatment at Primary Health Centres in High-Prevalence, Resource-Constrained Settings

Edition 1 for Field-testing

WHO Library Cataloguing-in-Publication Data

Operations manual for delivery of HIV prevention, care and treatment at primary health centres in high-prevalence, resource-constrained settings: edition 1 for fieldtesting and country adaptation.

1.HIV infections - prevention and control. 2.HIV infections - therapy. 3.Primary health care. 4.Delivery of health care - organization and administration. 5.Developing countries. 6.Manuals. I.World Health Organization.

ISBN 978 92 4 159743 2

(NLM classification: WC 503.2)

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Printed in Switzerland

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CHAPTER 1

INTRODUCTION AND GUIDING PRINCIPLES

The *Operations Manual* is intended for use in countries with high HIV prevalence and provides operational guidance on delivering HIV services at health centres. Basic primary care and key services, such as maternal and child health, are currently delivered at health centre level. Provision of essential HIV services do not necessarily require specialized HIV clinics or the presence of a doctor. The use of this *Manual* will assist health centres to plan and deliver HIV prevention, care, and treatment in an integrated manner. It provides a framework to ensure that HIV services can be provided in an integrated, efficient and quality-assured manner.

The *Manual* is based on a public health approach to scaling-up HIV services in resource-constrained settings. This approach includes simple, standardized regimens and formularies; algorithmic clinical decision-making; standardized supervision and patient monitoring approaches; as well as integrated delivery of care at primary health centres within a district network. Decentralization of services to health centre and community level is facilitated with the public health approach. This *Manual* supports efforts to deliver and scale up HIV prevention interventions including provider-initiated testing and counselling, prevention of mother-to-child transmission, prevention of HIV and TB transmission and prevention of disease progression in HIV-infected individuals.

The *Operations Manual* deals with environmental health, logistic, managerial and infrastructure requirements for delivery of the essential HIV and primary care services. These are laid out in clinical guidelines such as country-adapted WHO Integrated Management of Adolescent and Adult Illness (IMAI), Integrated Management of Childhood Illness (IMCI) and Integrated Management of Pregnancy and Childbirth (IMPAC) guidelines or other national clinical guidelines for provision of acute and chronic HIV care.

■ Target audience

This *Manual* is written for the health centre team, and in particular the health centre manager (often an in-charge nurse). Specific chapters may be particularly useful for those with specific tasks such as managing the supplies, providing laboratory services, or managing patient records, registers and reports. The *Manual* is intended to be both a learning and job aid for the health centre worker. During country adaptation, some content may be presented as wall charts or used to develop standard operating procedures for various services or specific types of patients.

The *Manual* should also be helpful to the district management team, that supervises and supports health centre services, as well as being useful to the national Ministry of Health and other partners planning and supporting decentralization of HIV services. An Adaptation Guide summarizes the evidence for the guidance and supports national country adaptation of the *Manual*.

■ District health systems

The district health system or “district network” serves a population within a specific geographic area and consists of all the organizations, institutions, resources and people whose primary purpose is to improve health. At the core of most district health systems is the district hospital which acts as the first referral level for patients, and provides clinical, laboratory, pharmaceutical, and supplies support for health centres within that district. The district health system also functions as the organizing unit for planning and management. Functions such as supply chain management, reporting, and supervision for all the facilities in the district are the responsibility of the district health management team, which is commonly located at the district hospital. District management includes administrative services and multiple programmes (including HIV, TB and MCH) and often addresses other sectors in addition to health. This role is increasingly important, with substantial decentralization of services in many countries.

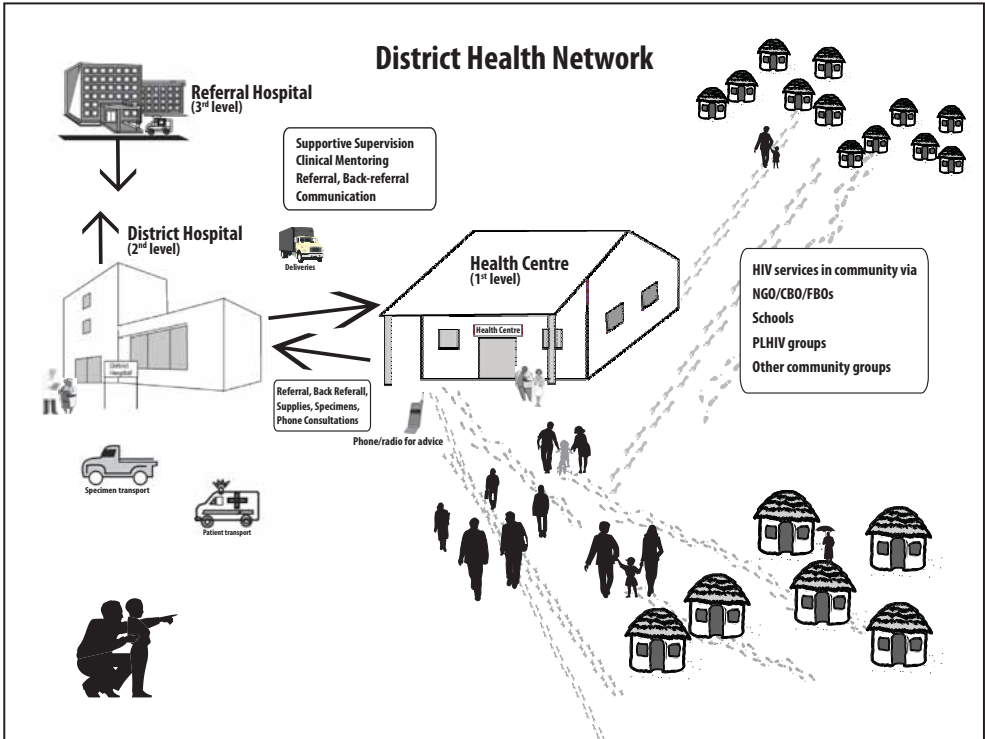
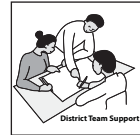
District support for the health centre includes

- District clinicians (doctors, medical officers, clinical or health officers) who:
 - provide consultative back-up
 - visit clinical teams at the health centre to review cases
 - provide clinical mentoring
 - provide care for referred patients including managing severe or complicated cases.
- District health management team (for HIV, TB, MCH, other programmes) who provides:
 - supportive supervision
 - important support to the health centre in terms of supply, laboratory, hiring health workers, transport, training, etc.

District support for health centres include laboratory and pharmacy staff, as well as clinicians and managers.

■ **Support from the district health management team**

This logo appears when support from the district is discussed or where close working relationships with the district health team are required.



The district health system contains health centres that are fixed facilities with professional staff. These in turn support a variety of health related activities in the community, including health posts or dispensaries that may be staffed by community health workers. Linkages between services at these three levels of the district health system should exist to make sure that HIV services are provided for patients, and that active follow-up and referral from the health centre occur as needed for continuity of care.

The community and community-based organizations are vital within the district health system because they provide an important link to resources in the community that support HIV prevention and long-term care. It is crucial to involve the

community in planning and advocating for the health centre. This is described in more detail in the *Community* chapter.

■ **Integration**

Integration of HIV services into the existing basic health services within the health centre and across the different levels of the health system is essential for successful HIV services from the perspective of both the health centre and the clients accessing care. Every contact with the health centre can be used as an opportunity to deliver HIV services. This *Manual* supports best practises in integration, such as providing integrated care for families, and training health workers so that patients receive all their needed services in a single visit, including integrating HIV services into the antenatal, labour and delivery, and newborn services.

Assumptions of the *Operations Manual*

- High HIV prevalence in generalized epidemics
- Material and human resource constraints
- Limited essential laboratory tests performed on site with few essential tests sent to the district hospital
- Refrigeration limited to that required by immunization services, this may require adaptation as other drug formulations which require refrigeration are added .

■ **The capacity of the target health centres**

This *Manual* addresses both large and small health centres within the district health system.

- Small health centres provide basic primary health care and prevention services, including ambulatory acute care services, immunizations, antenatal and postpartum services, family planning, sexually transmitted infection (STI) management, TB, and child health services.
- Large health centres are those that have an additional limited number of beds primarily used for labour and childbirth and for patients under observation during the day, or while waiting to be transferred to hospital. Facilities with inpatient wards would be considered as small hospitals, rather than health centres. Health centres have clinical teams led by a nurse, midwife or medical assistant (or in some settings by a clinical officer). The team is supported for mentoring, referral and back-referral by a district clinician at hospital level. Additional supportive supervision is provided by district management teams for HIV, TB, and maternal and child health.

The catchment population for a small health centre may be up to 10,000, while a large health centre may serve a population area of 20,000.

■ National adaptation

The essential interventions and the systems and resources needed to support the interventions outlined in the various chapters of this *Operations Manual* are likely to be applicable in most high HIV prevalence, resource-constrained settings. However, in each country the *Operations Manual* requires a national adaptation process by the ministry of health and its partners to fit national policy, existing guidelines, clinical and patient monitoring tools, the health systems context, and the resources of each country.

■ How to use this *Manual*

This *Manual* is not exhaustive. It is designed to be used by health workers as a job aid and for practical problem solving on a chapter by chapter basis. (It is not a training manual, but chapters can serve as a learning aid during training courses). Some overlap in content is inevitable to allow the *Manual* to be used in this way but this has been kept to a minimum. Wherever possible the relevant chapter is referred to clearly. There are a number of topics which appear in multiple chapters. Several of these are services that are currently being scaled up. Some are general issues that affect the health centre and others are HIV-specific. All are clearly marked with a logo to make it easy to pick them out.

■ Human resources

The intention of this *Manual* is to support health workers with a systematic approach to HIV services and to provide a framework within which HIV patients are seen, counselled and treated. (Many of these patients were already attending the health centre with medical complaints before their HIV status was identified.) It also gives staff in a facility an advocacy tool to request additional human resources when necessary. This logo appears when issues of staffing, human resources and training needs are discussed in a chapter. Planning, training and supporting health worker safety and other efforts to retain staff are discussed in the *Human Resources* chapter.



■ Quality management

'Quality of care' has three fundamental aspects: 1) patients receive the care they need; 2) the care delivered is consistent with national guidelines; and 3) the care delivered has the desired positive effect on patient health and well-being. Improvements in quality can occur without additional resources, since everyone has a



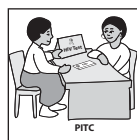
responsibility for quality, from national to individual level. Quality is affected by many different factors, including leadership, and whether there is adequate infrastructure, appropriate training, and available resources. This logo appears wherever aspects of quality management are mentioned in a chapter, such as the quality of HIV testing or workplace improvement. The client and community perspective also form an important aspect of quality; issues that might be important to monitor include waiting times, cleanliness and staff attitudes to PLHIV. The last chapter in the *Manual* presents a simplified quality improvement approach. It sets out a systematic and planned approach to assessing, monitoring and improving the quality of health services on a continuous basis.

■ TB control



This logo appears throughout the *Manual* in order to highlight the topics related to the prevention and control of TB. TB infection control appears throughout the *Manual*, including how to improve room air ventilation, separating TB suspects, promoting cough hygiene in waiting areas, the health centre's TB infection control plan; assuring rapid identification, diagnosis and treatment of TB; laboratory biosafety; and community TB literacy and action. This *Manual* also supports intensified case finding and isoniazid preventive therapy (with infection control, these are the “Three Is”).

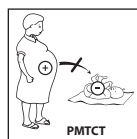
■ Provider-initiated testing and counselling for HIV (PITC)



This logo highlights the operational considerations for the scale-up of PITC. PITC is recommended in all health facilities in high prevalence settings for people who do not know their HIV status. Specific emphasis focuses on key entry points for HIV care through PITC, to the flow of patients in the facility, and to planning for scale-up of HIV testing, including supply of test kits, the quality assurance

of testing services, and the training and support needs for staff conducting testing and counselling.

■ Prevention of Mother to Child Transmission (PMTCT)



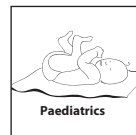
Some interventions to prevent the transmission of HIV from mother to child are already present in some health centres. This *Manual* supports an integrated approach to rapidly expanding the proportion of pregnant HIV-infected women on ART by integrating its delivery into antenatal clinics with the continued follow-up, testing, and care of their HIV exposed infants. These interventions have an impact on

PITC and the supplies, training and quality needs for HIV counselling and testing in the facilities, as well as on antenatal care services, labour and delivery services, the

care of the infant, family planning and other child welfare services. Strong linkages with the community and the partners and family members of women are tested and receive services are a key to the successful integration of PMTCT.

■ Paediatric care and treatment

This *Manual* supports efforts to assure prompt testing of all HIV-exposed infants, scale-up of paediatric care and treatment to increase coverage, and quality of care and treatment to HIV-positive children. HIV-exposed and infected children need to be on cotrimoxazole, and more infants and children need to be initiated early on ART. This requires appropriate paediatric formulations at the health centre.



■ Community

How do we define community and why is it important for our work? For the purposes of the health centre and this *Operations Manual*, community refers to people living with or affected by HIV in the population served by the health centre. This can include PLHIV and their families, but also includes health workers and CBOs providing services to them. The long-term medical and psychosocial consequences of HIV require sustainable community-based services to provide ongoing services and support. PLHIV rely on regular medical contact and support from the health centre. However, it is not practical for the centre to provide all the support needed by PLHIV and their families. Instead, community structures need to be strengthened to provide synergistic support, in close collaboration with the clinical team in the health centre and the district management team.



This *Manual* does not cover:

- special services for injecting drug users, guidance for this group is available elsewhere;
- surgical or specialized reproductive health services such as female sterilization, vasectomy, or adult male circumcision.

CHAPTER 2

PLANNING INTEGRATED HIV SERVICES AT THE HEALTH CENTRE

2.1 INTRODUCTION

Achieving quality integrated HIV services at your health centre is dependant on good planning and management. This chapter should help you plan delivery of the essential HIV services that your health centre needs. In part, this assistance is based on lists of the basic essential and desirable interventions for HIV prevention, care and treatment at health centres within a district health network.

These lists require country adaptation that takes into account current national guidelines, essential drug lists, existing services provided at the health centre, and the feasibility of adding specific HIV services. Each country should replace this generic list with a one that identifies both essential and desirable interventions. Some better-resourced health centres may be able to deliver enhanced services. Finally, the chapter concludes with a section that outlines how you can estimate your HIV service needs based on the catchment area of your health centre. The material provides formulae for estimating the required new or expanded services.

HIV services continue to evolve, and new guidelines and interventions are expected in the future. The lists, tables and formulae below are based on the 2009 evidence summarized in the accompanying Adaptation Guide, and require country adaptation.

Health centres function within a district network and are the focal point of health care in the community. On the one hand, they seek support and more specialized services from the district network. On the other hand, they provide support to communities, patients, their partners and families. They may do this directly through outreach or home-based programmes, or indirectly through advocacy, support groups and education. A number of services, such as door-to-door testing, counselling and

home-based care may be delivered directly at the home. In some settings, hospitals may also play an important role in community outreach programmes.

The health centre's roles in supporting these community services can be found in the lists that follow. Health centres have the closest connection to existing community-based structures and organizations involved in HIV prevention, care and treatment, and both the centres and communities benefit from this. The introduction of chronic HIV care and ART has further changed the care needs of a patient, making these linkages and integration even more important. To meet all the needs of patients and their families as they try to cope with HIV or AIDS and care-related issues, the health centre needs to function as part of a larger system of support.

2.2 ESSENTIAL AND DESIRABLE INTERVENTIONS

This section outlines the interventions needed for integrated HIV prevention, care, treatment and support at the health centre, and is based on the WHO priority interventions for HIV/AIDS prevention, treatment and care in the health sector. The interventions summarized in Annex 2-1 are compatible with the WHO recommendation for priority interventions.

More detailed tables on planning and implementation can be found in Annex 2-1. They have been formatted to help you to assess the services currently being provided at your health centre. A column in each table uses a key to make reference to relevant IMAI, IMCI and other training manuals. It also provides cross-references to material in other chapters of this *Manual*.

The Annex tables list services applicable to all age groups first, and then spell out special considerations for children, adolescents and pregnant women. Most interventions are relevant for both children and adults. However, infants and children also require special interventions and modifications, or special considerations related to HIV service delivery. Separate sections of the lists include both routine childhood services and specific services for HIV-exposed and HIV-infected children.

In resource-constrained settings, common childhood illnesses are significant factors in the illness and deaths of HIV-exposed and HIV-infected children. A guiding principle for paediatric HIV services is to ensure that basic HIV-specific services are fully integrated into existing maternal child health services at health centres. In some cases, reorganizing the health centre's child health services may be needed in order to ensure that comprehensive care for HIV-exposed, -infected or -affected children is provided.

These lists of essential and desirable interventions are limited to the health sector. However, it is important to note that an effective response to the HIV epidemic requires the involvement of multiple sectors as outlined in the section above. The lists include only the services that can be supported by laboratory tests available to patients attending the health centre. This includes laboratory tests that are readily available as “send-outs” to the district or central laboratory (see the *Laboratory* chapter).

The components of the WHO priority interventions for HIV/AIDS prevention, care and treatment for the health sector focus on five strategic directions¹:

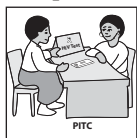
1. increasing knowledge of HIV serostatus
2. accelerating HIV prevention
3. accelerating the scale-up of HIV treatment and care
4. strategic information
5. health systems strengthening.

This chapter and Annex 2 concentrate on the clinical and behavioural interventions that can be scaled up at health centre level through focusing on strategic directions one to three. Direction number four, ‘strategic information’ is addressed in the *Monitoring* chapter. As for strategic direction number five, it flows through the entire text, since this *Manual* aims to strengthen health systems by addressing management and logistics at health centre level within a district health network. Most health systems strengthening interventions are presented in other chapters of the *Manual*. Detailed guidelines and job aids for these interventions are found in country-adapted WHO Integrated Management of Adolescent and Adult Illness (IMAI), Integrated Management of Childhood Illness (IMCI) and Integrated Management of Pregnancy and Childbirth (IMPAC) guidelines or other national clinical guidelines for provision of acute and chronic HIV care.

2.2.1 INCREASING KNOWLEDGE OF HIV SEROSTATUS

Priority interventions include:

- client-initiated testing and counselling (CITC);
- provider-initiated testing and counselling (PITC);
- family and partner testing and counselling (based on index case);
- PITC during early antenatal care, labour, and post-partum period;
- infant and child HIV testing and Counselling;
- PITC in reproductive health services including family planning;



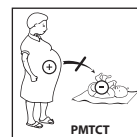
¹ See WHO. 2008. Priority interventions HIV/AIDS Prevention, Treatment, and Care in the Health Sector for more detailed information. <http://www.who.int/hiv/pub/guidelines/2008priorityinterventions/en/index.html>

- PITC when patients show signs/symptoms of illness that may suggest HIV infection, including TB, STI, other WHO HIV-staging illness, and increasingly other common minor complaints;
- PITC for men seeking circumcision as an HIV prevention intervention;
- laboratory services for HIV diagnosis.

2.2.2 ACCELERATING HIV PREVENTION

Accelerated HIV prevention programmes can help with:

- **Preventing sexual transmission of HIV by**
 - promoting and supporting condom use;
 - detecting and managing STIs;
 - safer sex and risk reduction counselling: This includes active support for partner disclosure and testing, discordant couples risk reduction, counselling on the possibility of HIV transmission while on ART, assessing substance use, providing brief alcohol interventions;
 - male circumcision for HIV prevention;
 - prevention among PLHIV;
 - targeted interventions for sex workers and men who have sex with men (MSM);
 - non-occupational post-exposure prophylaxis (in cases of condom breakage and rape);
 - specific considerations that target young people;
 - adolescent-friendly services;
 - assured access to reproductive health services including family planning and condom provision;
 - specific consideration for vulnerable populations: displaced, mobile and migrant populations, prisoners and people in other closed settings;
 - mental health hospitals/institutions;
 - interventions for injecting drug users;
- **Prevention of HIV infection in infants and young children (PMTCT)**
 - primary prevention of HIV transmission among men and women;
 - family planning, counselling and contraception;
 - antiretroviral medicines for preventing HIV infection in infants;
 - treatment, care and support for pregnant women living with HIV;
 - infant feeding counselling and support.





- **Preventing HIV and TB transmission in health care settings:**
 - infection control (TB and HIV) in health-care settings
 - blood safety
 - safe injections and routine use of standard precautions
 - occupational post-exposure prophylaxis (PEP) for HIV
 - safe waste disposal management.

2.2.3 ACCELERATING THE SCALE-UP OF HIV TREATMENT AND CARE

Primary interventions include:

- Antiretroviral therapy for adults, adolescents and children
 - treatment preparedness and adherence support
 - patient monitoring.
- Prevention and management of opportunistic infections and co-morbidities included:
 - managing HIV-related conditions
 - managing pneumonia
 - cotrimoxazole prophylaxis
 - managing diarrhoea
 - managing malnutrition
 - preventing and managing malaria
 - managing viral hepatitis
 - vaccinations for infants and children, per national programme
 - preventing and treating mental health disorders
 - counselling.
- Palliative care
- Tuberculosis prevention, diagnosis and treatment:
 - isoniazid preventive therapy (IPT)
 - intensified TB case finding
 - early identification and treating HIV-associated tuberculosis.
- HIV and TB treatment and care for health workers.

2.3 ESTIMATING HIV SERVICE NEEDS

To estimate the infrastructure and staffing needs that HIV service provision will generate in your health centre's catchment area, you need to include requirements for HIV testing, care and ART for all patient types. This includes TB patients, both pregnant and non-pregnant women, children, and other adults. Estimates need to take into account:

- numbers requiring HIV testing and counselling due to scale-up, including PITC;
- increasing numbers of patients in chronic HIV care and ART;
- other HIV prevention services that are being scaled up.

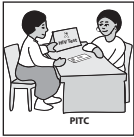
The following step-by-step approach will assist you in your planning process.

STEP 1: Find out the population of your catchment area and estimate the proportion that is under 15 years of age and the proportion that is over 15 years. This information is often available from district offices, or from the central bureau of statistics, or the office of population.

STEP 2: Find out the HIV prevalence in your catchment area. If this information is not readily available, use national or district HIV prevalence data.

STEP 3: Combine information from Steps 1 and 2 to estimate the total number of PLHIV that your health centre serves, as well as to obtain an estimate of the number of people who will be enrolled in your HIV programme.

STEP 4: If you have client-initiated services at your health centre, then the next step is to calculate your counselling and testing requirements. In practise, new sites rarely see more than 100 clients per month in the first few months, so use this as a guide. Thereafter, once services are established, the best guide to estimating the patient number is to refer to the number tested in the previous quarter, taking into account seasonal variations such as school holidays, rainy seasons, planting and harvest times, all of which might affect client flow through the centre.



STEP 5: PITC will increase the rate of HIV testing. The following table will help you estimate the number of rapid test kits, human resources and space requirements for the initial scale-up of PITC. (In time, you can use the forecasting methods in the *Supply Management* chapter). The estimates below are larger than in reality in order to account for patients who return for repeat testing.

Adults	Source of information for estimates	Number of patients	Percentage of group that needs testing	Total
Antenatal patients	antenatal care (ANC) register		100%	
New TB patients of unknown status	TB register		100%	
STI patients	Acute care register		100%	
FP patients of unknown status			100%	
Adult outpatient department (OPD) patients (acute care, people suspected of having TB, etc.)			80%	
Total number of adults needing testing monthly				
Estimated number of adults needing testing daily = total number needing testing, divided by the number of days clinic is open per month				
Number of full-time rooms or private spaces and counsellors needed for full scale-up*				

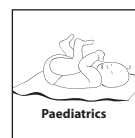
* Estimate based on a counsellor able to carry out rapid HIV testing and post-test counselling for 15 patients each day.

After your health centre introduces or strengthens PITC, your estimates for increased HIV testing will need to take into account:

- the number of pregnancies that are currently managed in antenatal care, and the estimated number you will need to manage when antenatal care coverage is improved;
- the proportion of patients who will consent to be tested in each category;
- the current status of your efforts to provide HIV tests for your TB patients. Do most know their status now, or do you need to recommend testing for all of them? Once you know the HIV status of most of your TB patients, on a monthly basis you will only need to give HIV tests to new TB patients, and to people who are believed to have HIV;
- the level of activity your centre has achieved in carrying out partner testing.

The estimates that you arrive at will likely exceed the actual number of patients who accept HIV testing, especially in the early stages of your scale-up. You should then consider the resources and likely scale-up rate you can achieve, and use it to come up with estimates about HIV testing after your services have been established for some months.

The exact figures may be difficult to forecast. Therefore, it is important that centre management ensures it has an adequate buffer stock of rapid HIV test kits and a method for rapid re-supply if stocks become depleted.



STEP 6: Estimate the number of children that need testing.

Children	Source of information for estimates	Number of children	Percentage of group that needs testing	Total
HIV-positive women in ANC clinic	ANC register		100%	
'Under 5' clinic	Acute care register		100%	
Sick children with HIV-positive mothers			100%	
Sick children with mothers with unknown serostatus			100%	
Sick children with HIV-negative mothers				
Sick children aged between five and 15 years			Estimate of the prevalence x 2	
Total number of children who need testing monthly				

* Estimate based on a counsellor able to carry out rapid HIV testing and post-test counselling for 15 patients each day.

STEP 7: Estimate the number of patients coming to your centre who will be HIV-positive—this is the number of PLHIV requiring chronic HIV care.

A rudimentary way to calculate the total number of HIV-positive adults in any population is HIV prevalence multiplied by one-half of the total population (an estimate of the adult population).

More complex calculations can be carried out by using the prevalence in different populations, since the prevalence will vary by patient population, e.g. it will be higher in TB patients. These calculations can be used in the next step to estimate the number of PLHIV who will be on ART in different populations.

STEP 8: Estimate the number of PLHIV who will be on ART.

This table helps you estimate the need for ART services based on your estimated HIV-positive patient population once PITC is scaled up. This may then may need to be modified to reflect your ART allocation.

PLHIV	Estimated number PLHIV identified within next year	Estimated percentage that requires ART when found to be HIV-positive	Number of PLHIV who will need ART within next year
Pregnant women		20-30% will require ART Remainder (70-80%): PMTCT ARV prophylaxis	
Adults seeking care for illness		Often 30 to 60% of PLHIV will be eligible for ART (as HIV testing expands and patients enter chronic HIV care earlier, this percentage should drop)	
HIV-infected children			
TB patients		100% (either during or after TB treatment)	

STEP 9: Estimate the frequency of clinical visits (Note that percentages of patients on ART need to be adapted to reflect site/country realities).

	Number of visits/month*	Number of visits/week	Number of visits/day
100 PLHIV in chronic HIV care			
If 30% are on ART	53	13	3
If 50% are on ART	66	17	3
If 100% are on ART	100	25	5
250 PLHIV in chronic HIV care			
If 30% are on ART	133	33	7
If 50% are on ART	167	42	8
If 100% are on ART	250	63	13
500 PLHIV in chronic HIV care			
If 30% are on ART	267	68	14
If 50% are on ART	333	83	17
If 100% are on ART	500	125	25
750 PLHIV in chronic HIV care			
If 30% are on ART	400	100	20
If 50% are on ART	500	125	25
If 100% are on ART	750	188	38

* The assumption behind these calculations is that patients on ART are seen by a clinician every month (on average) and pre-ART patients are seen every three months (on average). There will always be patients who are lost to follow-up (LTFU) and others who miss appointments. However, there will also be additional unscheduled ("walk-in") patient appointments of people suffering from drug toxicity, acute illness, etc.. This calculation assumes that missed and extra appointments balance each other out. These estimates do not describe visits for counselling, laboratory, pharmacy or other non-clinical services.

STEP 10: Estimate of clinical consultation room capacity.

	Number of visits/month	Number of visits/week	Number of visits/day
If the majority of patients are follow-up cases	600	150	30
If > five patients/day are new	500	125	25

Throughout, this *Manual* focuses on both large and small health centres, using estimates for the management of 100, 250, 500 or 750 PLHIV in chronic HIV care, with 30% to 50% on ART (these percentages needs country adaptation). Estimates of infrastructure, staffing and laboratory testing needs are shown for these numbers of patients, as well as the requirements for testing, other PMTCT interventions, and the scale-up of other prevention interventions.