



Briefing Package

Integrated Approach to HIV Prevention, Care and Treatment: IMAI and IMCI tools

INTEGRATED
MANAGEMENT OF
ADOLESCENT AND
ADULT
ILLNESS

INTEGRATED
MANAGEMENT OF
CHILDHOOD
ILLNESS



**World Health
Organization**

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1 IMAI strategy

1.1 *Summary of the IMAI strategy*

The IMAI strategy is based on:

a) **A clear vision**

- **Rapid scale-up of the public health approach to chronic HIV care, ART and prevention**
- **A district service delivery model for decentralized HIV care, ART, and prevention: strengthen district network (community, health centre and hospital);** transition to chronic care; strengthening the referral and mentoring system; paediatric and adult medicine; prevention integrated with treatment and care; patient monitoring.
- **Flexible tools which can be used in other service delivery models:** in workplaces, public-private partnerships, IDU treatment sites, closed settings, day care centres.
- **Evolving into a broader integrated district training strategy within :** working with other teams, departments and partners to expand to address provider-initiated testing and counselling, integrated PMTCT interventions, TB-HIV co-management, etc.

b) **IMAI tools relevant to community and two levels of health facilities (health centre and district hospital)**

c) **Multi-component implementation strategy based on clear priorities**

d) **An organized sequence for IMAI implementation**

- **Introduction/orientation**
- **Country adaptation** (clinical guidelines, sociocultural adaptation, health system fit, patient monitoring system)
- **District management course**
- **Training of trainers**
- **Support for rapid scale-up of training (continuous training)**
- **Post-training follow-up and supervision** (quality assurance by the district management team, clinical mentoring)
- **Emergency pre-service introduction**

1.2 What is IMAI?

Helping to facilitate universal access to care, treatment and prevention for HIV is a core mission of WHO in its response to the epidemic. As countries move beyond “3 by 5” towards universal access, WHO has strongly committed itself to the development and implementation of a set of simplified and operationalized tools for delivering HIV-related services in resource constrained settings. Short for “Integrated Management of Adolescent and Adult Illness,” the WHO IMAI toolkit continues to evolve to support broad access to HIV care, treatment (ART) and prevention¹. IMCI (Integrated Management of Childhood Illness) HIV tools have been added so the toolkit is often referred to as IMAI/IMCI. Many countries have successfully adapted the IMAI/IMCI toolkit, and others have started the process of reviewing their scale-up approach and adapting IMAI materials to allow decentralization of ART within integrated HIV services and to strengthen prevention efforts.

The public health approach to scaling up integrated HIV/AIDS services is based on a simplified, standardized approach to treatment, care and prevention that can be broadly applied on a population basis. Care and prevention activities are integrated with antiretroviral therapy at service delivery points.

IMAI is an integrated approach to scaling up comprehensive HIV care, treatment and prevention within the framework of existing health systems. It offers a concrete blueprint for the realization of ambitious scale-up targets by integrating simplified clinical management of HIV/AIDS (with back-up from clinical mentors and referral to hospital) into the routine work of existing health services with strong community support. This public health approach is based on the principles of standardization, decentralization and integration. It covers the range of HIV -related prevention, care and treatment issues—from clinical staging, to treatment of acute conditions and opportunistic infections, to anti-retroviral treatment and palliative care, with prevention integrated throughout. This approach supports a district network model, with back-up for services provided at health centre and district hospital level by clinical mentors within a strengthened consultative/referral and back-referral system.

Rapid treatment scale-up in resource-limited high burden countries requires a public health approach. This includes the use of simplified and standardized services provided through network systems including treatment teams headed by medical officers but largely composed of nurses, clinical officers and PLHIV and other lay providers trained (and paid) to join the clinical team, working with community workers. Task-shifting allows sharing of duties to the lowest relevant cadre and into the community, a vital step for a chronic disease management where long-term treatment and care is critical. Key elements include accessible HIV counselling and testing, simple reporting tools to track progress, and a minimum set of medicines and diagnostics that basic supply chains are strengthened to deliver on a regular basis. Reporting is an integral part of the public health approach and can be used to generate evidence that standardization and simplification do not compromise high quality clinical care.

¹ To access IMAI/IMCI tools, go to www.who.int/hiv/capacity/en/. The entire IMAI/IMCI toolkit can be accessed by clicking on Sharepoint Registration at bottom of page (free registration).

The IMAI/IMCI tools were developed by WHO and partners based on evidence-based normative guidelines² and a thorough review of field experience with HIV/AIDS treatment provision in resource constrained settings. The IMAI/IMCI toolkit contains concrete tools and guidelines that support the organization of all relevant aspects of a comprehensive HIV/AIDS health sector response, including health service management at the district level, training and job-aids for clinical teams, materials to support patient education and self-management, and a patient monitoring system. IMAI also offers detailed guidance for country adaptation of the materials, and a wealth of support for implementation.

This network approach strengthens the district health system and allows decentralized delivery of ART, with back-up by clinical mentors and careful follow-up and quality improvement after training.

1.3 Target audience

The target audiences for IMAI tools include:

(a) first-level facility health workers who work in a district outpatient clinic or in peripheral health centres and clinics, in rural or urban areas, in low resource settings.

(b) doctors and medical officers working at district hospital outpatient and inpatient
At a district outpatient clinic, the health workers and lay providers following the IMAI guidelines work in a clinical team with the doctor or medical officer guided by other WHO guidelines for senior clinicians and trained with the IMAI second level ART and OI training course.

In peripheral health centres and clinics, the health workers and lay providers work in concert with senior clinicians at district outpatient clinics through referral and back-referral, and stay in communication by mobile phone or other means.

(c) PLHIV trained to work on the clinical team or in the community.

(d) district, regional and national HIV management teams.

1.4 Transitioning from acute to chronic care

HIV/AIDS is challenging health systems in resource constrained settings to provide life-long treatment and care. The introduction of ART requires a shift from acute care only to acute AND chronic care. The IMAI integrated package and its simplified tools help teams in their decisions and management. Most importantly, chronic HIV care involves patients in managing their own illnesses and helps them to adhere to treatment and to self-manage many symptoms.

² IMAI simplifies and operationalizes normative guidelines established and updated by WHO expert consultation; the guideline modules (but not all training courses) have been updated to reflect the 2006 WHO normative guidelines: *Antiretroviral therapy of HIV infection in infants and children in resource-limited settings*; *Antiretroviral therapy for adults and adolescents in resource-limited settings*; *Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants*; *Recommendations on the diagnosis of HIV infection in infants and children: a public health approach*; and *WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV related disease in adults and children*.

1.5 Emergency response to human resource constraints: task- shifting

The IMAI tools present a concrete response to the human resource constraints which many analysts have suggested will be a bottleneck for scale-up. The IMAI clinical training courses are a technically sound approach to shifting tasks within the clinical team and expanding the team to include PLHIV. Based on this approach, in many settings tasks can be shifted from more specialized (and scarce) to less specialized health workers—for example, from specialized physicians to general doctors and/or medical or clinical officers, from doctors to nurses, from nurses to ART aids and other lay providers. The most important task shift is to the patient themselves (self-management). The community can be progressively involved in managing HIV care and ART (e.g., for treatment support, drug refills, simple monitoring).

The key task shifts are:

- Specialized physicians to doctors
- Doctors to nurses
- Nurses to PLHIV HIV care/ART aids—education, psychosocial support, adherence preparation and support can be taught to PLHIV, other lay providers, nursing assistants
- Clinical team to patient (self-management)
- Clinical team to community—for treatment support, drug refills, simple monitoring

These task shifts have a growing evidence base. IMAI has emphasized patient safety in developing the simplified guidelines and has validated the ability of nurses and other non-physicians to make critical decisions during guideline development (comparing their acute care decisions with that of an experienced doctor with some laboratory support). During implementation, the doctor on the clinical team and the district coordinator are thoroughly involved through case review, close supervision and ongoing monitoring.

1.6 Emergency response to human resource constraints: involving PLHIV to train health workers, on clinical team, and as community health workers

Training lay providers to provide counselling, patient education and adherence support allows much of the increase in human resources for ART to be provided by PLHIV and other community members who both join clinical teams and support treatment and other care in the community.

PLHIV as expert patient-trainers: Involvement of PLHIV as patients who are experts in their own illness can be a valuable educational strategy to support the training of health workers. This is a very effective training intervention, and also addresses effectively the need of increased number of trainers necessary for capacity building during rapid ART scale-up.

In both the Basic ART Clinical Course and ART Aid course, PLHIV are trained to play specific HIV cases with the course participants during the skill stations sessions two hours per day in addition to joining small groups during the interactive classroom training. PLHIV trained as Expert Patient-Trainers add much needed experience and reality to instruction of HIV care and ART (see section 2.10).

PLHIV on the clinical team (besides doctors and nurses): In addition to training, involvement of PLHIV in the care team as an ART Aid represents a critical intervention for ART scale-up for many different reasons. It addresses human resource constraints which will be faced during ART scale-up; creates new jobs; it definitely can help reduce HIV stigma and to sensitize the community at large on HIV/AIDS and ART related issues.

The PLHIV in the care team have a fundamental role as a liaison with the community. At country level, emergency policy issues related to the regular employment of PLHIV as ART Aid by creating new posts in the government health facilities (not only NGOs) will need to be addressed in order to bring to scale this effective intervention.

PLHIV as triage/data clerk: PLHIV or other lay providers with an aptitude for records can easily be trained to keep track of the patient cards and appointment book, fill out the registers and reports. They approach this with enthusiasm whereas clinical staff often already feel overburdened by other reporting requirements.

PLHIV as community health workers: PLHIV as community health workers can track patients who have been lost to follow-up; do contact tracing; provide directly observed therapy for ART and TB treatment; do social mobilization and community education on HIV testing and treatment preparedness. Like PLHIV working as an ART Aid on the clinical team, PLHIV working as community health workers can act as a liaison with the community.

IMAI has developed draft tools to prepare community health workers with low literacy. These can be modified to fit the specific cadres in each country. These complement WHO/IFRC materials for literate community volunteers.

PLHIV on the clinical team:

- ART aid (counsellor; adherence support)
- Data clerk (patient monitoring)
- Reception, triage
- HIV testing and counselling
- Infant feeding counselling
- Linkage with community groups
- Facilitate peer support groups
- Train treatment supporters

1.7 Strong community involvement and linkages

Community conversations and sociocultural adaptation of the IMAI materials

IMAI adaptation and implementation plans are exploring and further developing effective and efficient methodologies to assure strong involvement of communities. Adaptation emphasizes identifying a locally relevant, combined prevention approach. This can potentially improve the effectiveness of IMAI scale up in prevention integrated with treatment and care.

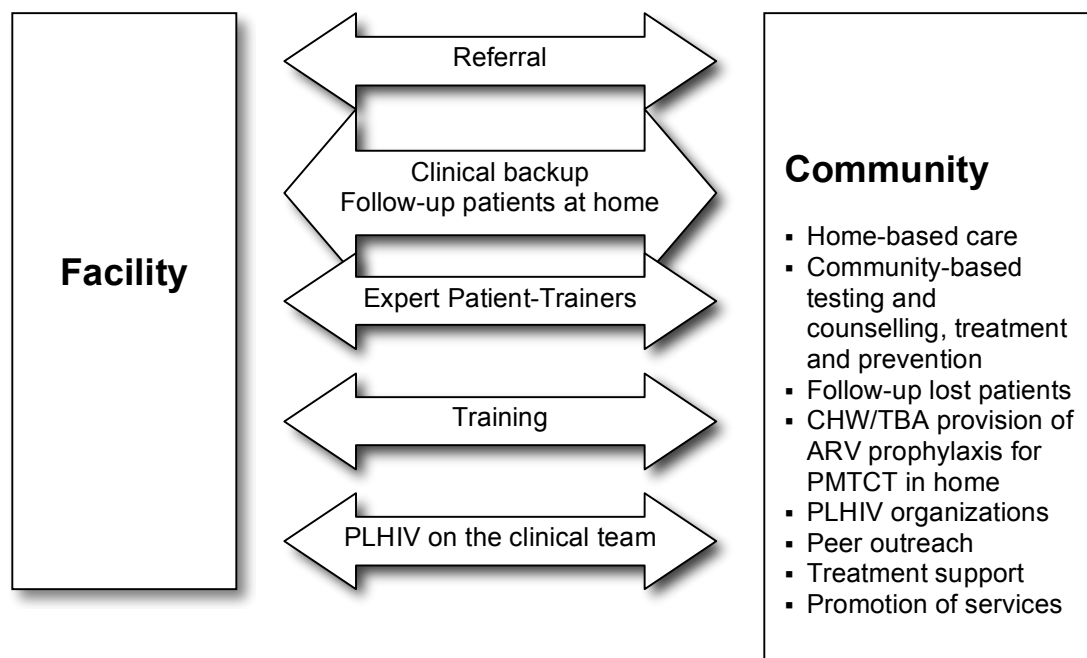
Community prevention and treatment preparedness must precede and continue in parallel to health facility scale up efforts.

Facility and community linkages: Establishing a bi-directional link between health facilities and community services is a crucial aspect of the IMAI approach. This ensures coordination and consistency among the services and education and messages delivered by health workers and PLHIV on the clinical team at the health facility and by CHWs, CBOs, and FBOs in the community.

IMAI is based on community treatment preparedness and PLHIV empowerment, with PLHIV working both as community health workers, as trainers, and on the clinical team. The IMAI ART Aid training materials can be adapted for use in community health worker training and additional CHW-specific materials are being developed.

The same IMAI Patient Self-Management and Caregiver Booklets, patient education flipchart, and treatment cards are intended for use both in the community and the health facility.

Linkages between facility and community:



1.8 Scaling-up paediatric HIV prevention, care and treatment using IMAI/IMCI tools

Need for decentralized care: Decentralization of HIV care and ART for children has often lagged behind adults. Management of paediatric HIV infection has traditionally been seen as the realm of the specialist and remains limited in most cases to tertiary care centres. Quality care can be provided at health centre level and has the benefit being close to home and is more suitable for long-term chronic care. Additionally, a significant proportion of children in need of care reside in rural settings which are not accessible to tertiary care sites. Decentralised care to lower level health facilities, using trained providers at the lower levels of care, would reach out to many more children needing support. Further decentralization beyond the health facility may be key to the

delivery of some essential interventions to children including facility outreach and delivery of cotrimoxazole prophylaxis delivery and home-based care for malaria and diarrhoea.

Integrating the essential interventions for paediatric HIV care and ART within the essential package for scaling-up adult HIV prevention, care and treatment at each level of the health system is the most rapid way to assure broad access for children. IMAI/IMCI guideline module Chronic HIV Care with ART and Prevention includes an important section on children, supported during the training course and by offering additional IMCI-HIV training following the basic IMAI HIV care/ART training course. The incorporation of HIV into IMCI and IMAI modules in essence equips and develops the capacity of all health providers to identify clinical disease in children in order to be able to test them when indicated (by sending a dried blood spot for PCR or performing a rapid HIV antibody test in the facility) and to be able to provide HIV-infected children with the necessary care, treatment and support.

Paediatric HIV care should be provided at sites where adult HIV management with ART is already taking place. This approach facilitates rapid scale up of paediatric HIV services as logistic issues pertaining to training in ART management, supply management, and basic laboratory capacity have already been addressed in the context of adult HIV care.

1.9 IMAI approach to capacity building and follow-up after training

Training of district HIV/ART coordinators

Preparation of the district management teams in the region should precede clinical training which is often organized on a regional basis. It is important to plan training based on the needs of clinical teams at the HIV sites chosen in the district, hopefully in consultation with the communities and with the clinical teams themselves. These district management teams will then be ready to start follow-up visits after training to clinical teams as they start providing chronic HIV care and ART to patients at their facility.

Training of trainers

IMAI uses several types of facilitators: clinical facilitators, counselling facilitators (to train the ART aid, psychosocial support for children, and pre- and post-test counselling) and expert patient-trainers (PLHIVs trained to present cases and provide feedback to health workers). Facilitator training can be done before the actual training of health care providers or can be integrated within the initial TOT by pairing experienced facilitators with facilitator-trainees. Training of the expert patient-trainers requires 3 days.

Sample training schedules

The following is a typical training schedule covering the training courses listed in section 2.

Original "6 + 2" training schedule for Basic ART and Acute Care/OI clinical team training

Monday	Tuesday	Wed	Thurs	Friday	Saturday	Sun	Mon	Tues
Basic HIV care/ART Clinical Course Nurses, Midwives, Medical Assistants, Pharm techs					Clinical Team Building Patient Monitoring	Off	Short Course: Acute Care/OI Nurses and Clinical Officers	
Basic HIV care/ART Clinical Course Clinical Officers, Health Officers								
ART Aid Course PLHIV, other lay providers, Nursing or Health Assistants, or Nurses							Second level ART/OI Course Medical Officers/Doctors	
Basic ART Clinical Course Medical Officers/Doctors		Second Level ART/OI Clinical Course Medical Officers/Doctors						

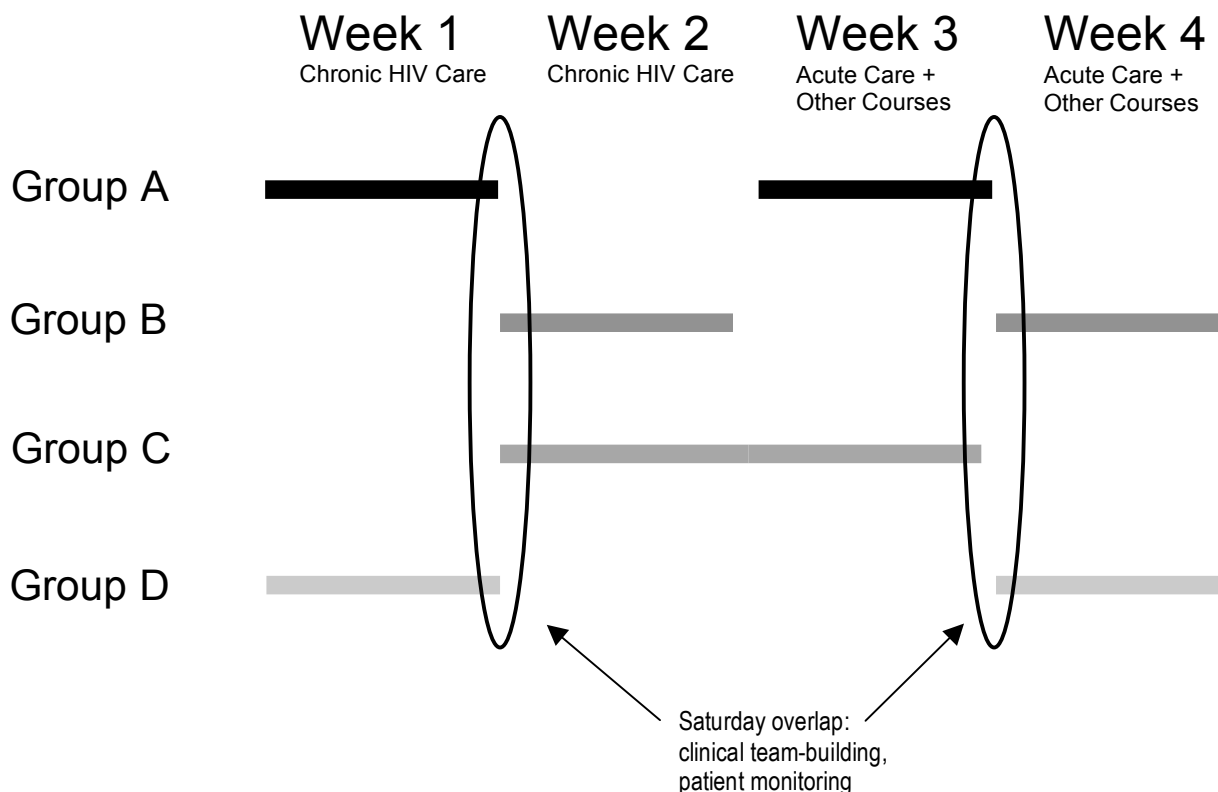
The first and second weeks of this schedule can be staggered during a period of continuous training. In this case, health workers have the option of dividing up the two week block. This reduces training fatigue. It also provides flexibility to health facilities in balancing in-service training with work; members of the same clinical team could be divided into Group A and Group B, ensuring that half of the clinical team is at the health centre all the time. Other training schedules are possible, for example dividing the courses into weekend blocks delivered at the district

Continued innovation to increase the efficiency of training

Efficiency of training is of paramount importance to support scale-up. IMAI materials can support the goal of rapidly increasing ART coverage. Efficiency of training can be improved:

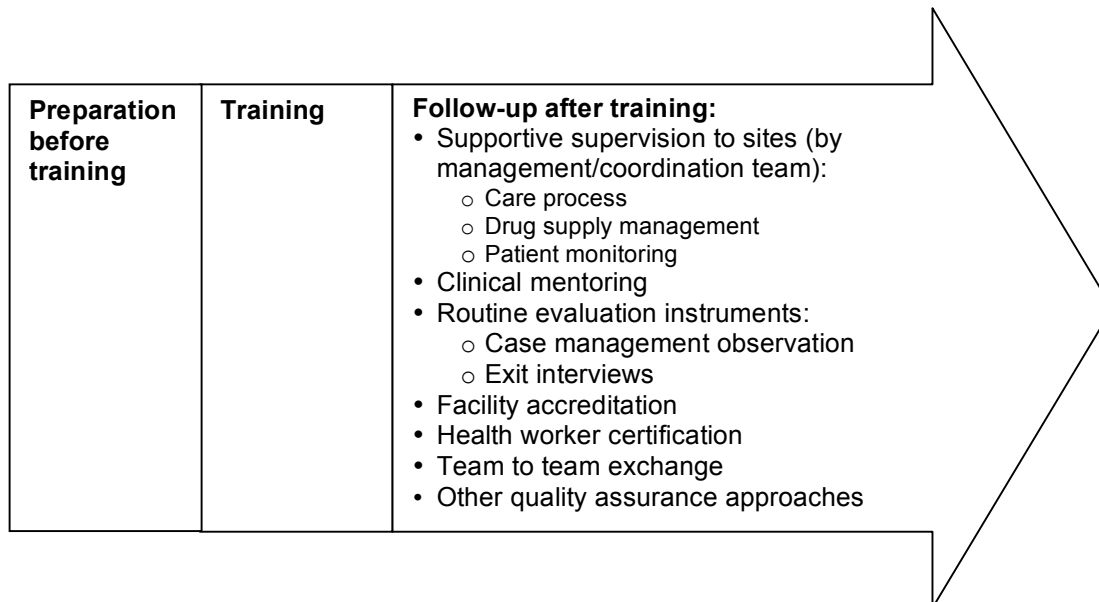
- By coordinating enough facilitators and expert patient-trainers and continuously training health workers in a certain region or zone.
- By early introduction into pre-service training .
- By the extensive commonalities between the IMCI, IMPAC and IMAI approaches.
- By attention to training methodologies and exploration of alternative methods of training.
- By the development of training videos- both for clinical³ and counselling training.
- By use of quality assurance approaches during planning and monitoring to assure adequate attention to an efficient process of care and effective training.

³ A clinical training video/DVD for use during training is currently in development. This teaching tool does not require interactive DVD which is expensive and requires health workers that are comfortable with the technology. Demonstrations and clinical cases will be on the video/DVD with instructions to the facilitator when to stop. The participants then answer questions using paper and pencil, the answers are discussed, and the tape or DVD restarted. This simple method has proven to work well in IMCI.



Recognition of the importance of continued learning and support after training.

Systematic follow-up after training, with both supportive supervision by the district team and by clinical mentors, helps solve immediate implementation problems and supports ongoing capacity building.



1.10 IMAI/IMCI evolution to a broader modular and integrated approach to district capacity building: integrated management of HIV prevention, care and treatment

The core IMAI/IMCI training in acute and chronic HIV prevention, care and treatment has been expanded to provide harmonized tools to allow efficient integrated training at district level for provider-initiated testing and counselling, integrated PMTCT interventions, TB-HIV co-management, and training to complement IMCI on HIV in children. This expanded toolkit efficiently integrates the co-management of HIV care/ART with pregnancy and TB. Adaptations of the acute and chronic care materials are available to support harm reduction and drug substitution therapy for IDU.

This is based on providing compatible tools, adapted in each country with partners, which empower patient self-management and the community; build clinical teams; and strengthen district management capacity to support delivery of integrated HIV services. The IMAI/IMCI training courses are modular and harmonized between themselves, to meant to efficiently teach the practical skills necessary to care for HIV infected persons.

For health workers at the first-level facility, we are working with partners to evolve a broad integrated approach with a package of compatible short courses and integrated approaches to follow-up after training to allow health workers to serve the needs of the range of patients and clients arriving at the health centre or the outpatient of district hospitals needing HIV services for acute or chronic care, pregnancy or family planning.

- Several compatible short courses have been developed, all based on the IMAI Acute Care guidelines: OI management; STI and other genitourinary problems; management of mental health and neurological problems; and provider-initiated testing and counselling for clinicians (see section 2.3). A short course on management of fever/malaria is near completion.
- The ART Aid course is being updated to support prevention by positives; brief interventions for hazardous alcohol use; provider-initiated testing and counselling and post-testing counselling for those who test positive and negative (emphasizing risk reduction) and pretest counselling for patients who opt-out when offered HIV testing.
- The IMCI guidelines for children under 5 have been modified to address the diagnosis of HIV, management of opportunistic infections, and co-trimoxazole prophylaxis; a complementary course has been developed to support this (section 2.4).
- A compatible short course on reproductive choices and family planning counselling for PLHIV has been developed by WHO RHR and JHU (section 2.16).

Still in development:

- Psychosocial support for children infected or affected by HIV is in development.
- *TB Care with TB-HIV Co-Management* guideline module is being finalized and a short course on TB-HIV co-management and TB infection control at first-level

facilities has been pretested. These tools are fully co-sponsored by the STB Department (section 2.11).

- Compatible skills-based courses for PMTCT interventions integrated within antenatal, post-partum and newborn care including ARV prophylaxis or ART for pregnant women have been developed. These emphasize continuity of care and records and PMTCT during labour and childbirth (with WHO MPS, JHPIEGO and the HIV/PMTCT team); these guidelines cross-reference the Integrated Management of Pregnancy and Childbirth (IMPAC) PCPNC guidelines.
- Training approaches for a 6 day IMCI-HIV course for health workers without prior IMCI training.

For doctors and medical officers providing second level ART/OI care at district hospital, the second level HIV clinical learning programme (see section 2.17)

This approach is summarized in the following broader integrated district training schedule:

Week 1

Mon	Tues	Wed	Thur	Fri	Sat	Sun
Basic HIV care/ART Clinical Course Nurses, midwives, medical assistants					Clinical Team Building	Off
Basic HIV care/ART Clinical Course Clinical Officers, Health Officers					Patient Monitoring	
ART Aid Course PLHIV, other lay providers, Nursing or Health Assistants, or Nurses					Drug Supply Management	
Basic ART Clinical Course Medical Officers/Doctors		Second Level ART/OI Clinical Course Medical Officers/Doctors				

Week 2

Week 2				
Mon	Tues	Wed	Thurs	Fri
Short Acute Care/OI Course* Nurses, midwives		Provider-initiated testing and counselling: pre-test information and education, rapid HIV testing	Options or follow-on short courses: <ul style="list-style-type: none">○ Acute Care: STI○ Acute Care: Mental health/neurological○ TB care with TB-HIV co-management○ Provider-initiated testing and counselling: post-test counselling and risk reduction○ Integrated PMTCT: antenatal. L&D and postpartum continuity of care and records○ IMCI-HIV complementary course (assumes prior IMCI training)○ Reproductive choice and family planning○ Palliative care○ Special care for adolescents○ Psychosocial support for children○ Patient monitoring: registers and reporting○ Drug supply management at first-level facilities	
Short Acute Care/OI Course* Clinical Officers, Health Officers				
Second level ART/OI Course Medical Officers/Doctors				
○ PMTCT: Infant feeding counselling				

The optional short courses can be used for follow-on workshop or during on-site visits. These plus case books and distance learning support provide a curriculum for ongoing HIV learning that can accommodate updates and progressively develop the capacity of clinical teams to deliver the range of integrated HIV services.

How IMAI/IMCI relate to the WHO model essential package for HIV prevention, care and treatment

IMAI/IMCI provides some of the tools for the WHO model essential package for HIV prevention, care and treatment. The expanded IMAI/IMCI tools are all integrated and compatible, with facility, linked community interventions and targeted interventions for most at-risk populations.

These build on the practical experience in many countries in the implementation of IMAI, IMCI and PMTCT interventions. The approach strengthens health systems by bringing together case management and prevention interventions, patient monitoring, and links to community services, and supporting effective district networks of facility- and community-based health workers and district managers in low-resource settings.

Targeted interventions for most at-risk populations,

Even within generalised epidemics, there are specific groups that are more at risk of HIV infection. The IMAI/IMCI facility and linked community approach to the integrated management of HIV/AIDS are complemented by tools to support targeted community interventions for outreach to high risk groups and broad-based prevention promotion and TB and HIV treatment literacy for the general population. Country-specific focus on outreach to the most important high risk groups and broad provision of harm reduction interventions and condom programming are essential to reduce HIV transmission.

The district planning process supports district teams to prepare peer workers for outreach to sex workers, IDU, MSM, and other populations at high risk (see section 2.19). Simplified hot spot mapping approaches are available to ensure prevention is in place in those areas where transmission of HIV is generated. Peer outreach is particularly important to ensure those most at risk of HIV infection are able to access clinical services.

In addition, the IMAI tools address the need for health services to be "friendly" to vulnerable groups and ensure maximum prevention benefits in encounters between health care providers and clients. An updated Acute Care guideline module, health worker job aids and IDU-modified guideline modules and training materials will prepare them in attitude and clinical skills for special management needs of sex workers, injecting drug users, MSM, and adolescents. These special, tolerant services may be provided by select health providers or special facilities in some settings.

1.11 How IMAI/IMCI help build the health system from the inside out

Implementing IMAI and IMCI contribute concretely to health system strengthening in multiple ways. Integration brings together multiple case management and prevention interventions in a manageable way for both the health worker and the facility and district manager. IMAI also strengthens the district health system by its inputs into logistics support, communication, and a patient monitoring-record system.

IMAI (with IMCI, IMPAC, TB, FP and EPI) define most of the priority content for health service delivery. Practical health system development is supported by the identification of technical and managerial requirements for integrated health care and efficiencies from coordinated training, supervision and management. Rather than facing dozens of health intervention packages, each with its own implementation plan and demands on the district and health facility staff (human resources) and the health system, these integrated tools provide a consistent approach to acute and chronic illness and prevention. Besides HIV, IMAI addresses malaria and other common acute problems of adults, TB care, and palliative care. The same general principles of good chronic care which form the basis for chronic HIV care can pave the way for improving the management of other chronic illnesses, using the same. Although HIV services are emphasized during scale-up training, the integrated approach means that this strengthens, rather than detracts from the management of other important diseases.

District coordinators and clinical teams welcome efforts that will spare them from separate scale-up efforts for chronic HIV care and ART for adults and children, PMTCT, testing and counselling, and prevention. A compatibilized, integrated approach is more efficient and will ultimately help countries rebuild their health systems to provide quality integrated care at a growing number of facilities.

The adaptation process includes, in addition to the clinical and cultural adaptations, attention to adaptation to the health care system as part of the development process (see section 2.22). This process should lead to a good understanding of the system, ongoing and planned changes (reforms) in the system, and explore the most appropriate ways of introducing and incorporating the IMAI strategy into the system. This may overcome some of the difficulties and inefficiencies experienced in IMCI implementation.

1.12 Accelerated prevention linked with treatment and care

IMAI can contribute to accelerated prevention by its thorough integration of prevention interventions within its guidelines and training materials for HIV care and ART.

Basic prevention for all patients and positive prevention for those found to be HIV positive are integrated with care and treatment in the IMAI guidelines, training materials, and patient education materials:

A. Basic prevention for all patients within IMAI materials

- **STI screening and management**
 - All patients are screened for STIs and STI management is integrated within IMAI *Acute Care*. A short training course is in development.
 - In the IMAI *Chronic HIV Care* clinical review, PLHIV are asked about symptoms and examined and treated if STI is suspected.
 - Because STIs and HIV infection frequently travel together, anyone seen for an STI is offered HIV testing and counseling.
 - The adequate supply of medicines, diagnostics and other commodities for STI is integrated within the supply system with ART, OI, other drugs and diagnostics.
 - A supplementary Sex Worker Job Aid or additional pages in the updated Acute Care guideline module are in development. These will address presumptive treatment and speculum exams.
- **When to suspect HIV and provider-initiated testing and counselling**
 - In IMAI *Acute Care* (and its accompanying training materials), health workers are taught when to suspect HIV and are prepared to recommend testing (provider-initiated testing and counselling) including how to perform the rapid HIV test in clinic.
 - *TB Care with TB-HIV Co-Management* prepares health workers to routinely offer HIV testing to all TB patients (and TB suspects).
- **Promotion of safer sex/condom use/family planning**
- **Sociocultural adaptation of the flipchart to optimize prevention messages**

B. Prevention for PLHIV (aka positive prevention)

- Support for consistent condom use and safer sex
- Support for disclosure
- Support for partner testing
- Risk reduction counselling
- Discordant couples counselling
- Reproductive choice counselling and family planning
- Provision of PMTCT interventions
- Interventions against intergenerational sex
- Intervention to prevent other infections (insecticide-treated bednets, safe water, nutritional support; care including cotrimoxazole, INH and fluconazole prophylaxis, early case detection and management of cryptococcal meningitis and other OIs; etc)

C. Modifications of the IMAI guidelines and training materials for IDU

- Integrated IDU and HIV care
- Opioid substitution therapy
- Harm reduction

- Linkage with peer outreach

D. Special interventions and approaches for adolescents

- Adolescent job aid in development and 1 day training
- Linkage with peer outreach

E. Special interventions and approaches for sex workers

F. Prevention for health workers:

- Universal precautions
- Post-exposure prophylaxis
- Injection safety
- Prevent TB transmission

How prevention linkages with treatment and care are supported:

- Prevention messages are on the back of the Patient ARV Treatment Cards given to each patient and treatment supporter.
- Health workers learn to use a flipchart to educate patients on prevention.
- Using PLHIV as ART Aids and as trainers for health workers helps to reduce stigma.
- The patient monitoring system systematically supports linkages with PMTCT interventions, use of family planning, and testing of partners and other family members.

1.13 Pre-service introduction of IMAI

Prompt introduction of IMAI into pre-service education is important for :

- Sustainability—IMAI can be incorporated into the routine teaching-learning process with the same manpower and without added cost. Pre-service IMAI training does not interfere with the work of health workers at their health facilities. It does not depend on external staff coming from another region or country except for the initial training of faculty and first courses.
- Rapid production of trained health workers—If all training institutions are involved, large numbers of trained health workers would be deployed every year.

'Emergency' IMAI pre-service training Many countries have already incorporated IMCI into their pre-service curriculum. For the preceding reasons; several countries have begun to do emergency IMAI training as a two week block for graduating nursing and medical students.

Rapid expansion of clinical teams able to delivery HIV prevention, care and ART can be further accelerated by emergency policy decisions by governments not to graduate or licence doctors or nurses without having undergone basic ART training. In the emergency phase, introduction of IMAI basic ART clinical and counselling training can be done through scheduling changes without the longer process of curriculum revision. Faculty can be trained to be facilitators or facilitators can be shared from nearby in-service training.

Activities that are needed in the next phase of introduction of IMAI to health training institutions include harmonizing curriculum with basic ART/HIV care and prevention training materials, capacitating faculty, producing materials such as textbooks, and designing evaluation tools.

IMAI technical content to update HIV pre-service curricula Many countries are systematically updating their HIV/AIDS curricula. In those countries using IMAI as their in-service approach to service delivery, compatible IMAI content for pre-service training is important. Much of this can be drawn from the in-service materials but additional materials are needed for teaching, learning and student assessment. These generic materials (e.g. list of core competencies and learning outcomes; model handbooks; model textbook chapters; technical seminars; reference materials; visual aids such as slides, photos, videos, and computerized learning programmes; and suggested methods and materials for student assessment) should be easy to adapt and use. (The IMAI project to provide technical content for pre-service curricula is closely linked with the Second Level HIV Clinical Learning Programme.)

Generic instructional materials exist to support a systematic approach to strengthening pre-service education, based on the WHO CAH/JPIEGO materials used for IMCI then applied to various other clinical content areas. This proven approach involves a cycle of orientation and planning, preparation for new teaching, implementation, monitoring and review of new teaching, and then replanning for further strengthening of teaching. CAH and JHPIEGO have also developed a learning package on the skills needed to effectively teach in a pre-service context.

1.14 Other service delivery models

The IMAI toolkit and country adaptation process provide a flexible health planning framework that facilitates tailoring to conditions (HIV prevalence; whether the epidemic is generalized or not; migration patterns; the vulnerable groups; high risk settings). These tools, with modification, can be used in other service delivery models, including care for IDU (see section 2.14), high risk settings (prisons and other closed settings, refugees, internally displaced) and other service delivery settings such as the military, workplace, and private practitioners (public-private mix).

1.15 Most common misperceptions about IMAI

- IMAI is only for Africa: (IMAI is based on global guidelines and programme experience and is relevant for all regions, with adaptation.)
- IMAI is just training
- IMAI is only for peripheral first-level facilities (health centres) and not for outpatient clinics in hospitals or doctors
- IMAI is for community health workers (CHW materials are available but IMAI addresses both the hospital, health centre and community.)

- IMAI has no role where there are a lot of doctors
- IMAI is only for some "health systems"
- IMAI is not for middle resource settings
- IMAI is only for places where ART is at the health centre facility
- IMAI is not for where CD4 and other laboratory tests are available

2 IMAI and IMCI tools: guidelines and training, management and patient self-management materials

2.1 Overview of IMAI materials

The IMAI/IMCI toolkit is new and evolving. Tools have been developed based on early field-testing and iterative improvement (rapid prototyping). The first training pretest was in January 2004. Several of the tools are still in development and are in draft form—these are marked with an asterisk in the list below.

Patient self-management and community support for HIV care, treatment and prevention scale-up

- Patient self-management tools
 - *Patient Self-Management Booklet**
 - *Flipcharts for Patient Education:*
 - *IMAI Flipchart for Patient Education*
 - *Reproductive Choice and Family Planning for People Living with HIV* flipchart*
 - Patient treatment cards—education about each first-line regimen plus prevention
- *Caregiver Booklet*
- CHW training materials*
- Peer support group manual and training materials*



Simplified guidelines (with training materials) for primary care facilities (health centre & district outpatient)

- *Chronic HIV Care with ARV Therapy and Prevention Rev 1*
- *Acute Care Rev 2*—adolescents and adults—including OI, STI, mental health and provider-initiated testing and counselling
- Acute care in children: *IMCI Chart Booklet for High HIV Settings* (with IMCI Complementary Course on HIV)
- *TB Care with TB-HIV Co-management**
- *Symptom management and end-of-life care (aka Palliative Care)*
- Adolescent job aid*
- Sex worker job aid*
- IDU modifications of Acute Care and Chronic HIV Care with ART and Prevention
- *Handbook of Supply Management at First-level Health Facilities (draft for fieldtesting)*
- Case review at clinical team meetings
- Team to team approaches
- HIV care/ART patient monitoring for the clinical team
- *Operations Manual for Delivery of HIV Prevention, Care and Treatment at Primary Health Centres in High Prevalence, Resource Constrained Settings**
This tool is in development within a broad collaboration. It will complement the IMAI/IMCI clinical tools (or other national primary care guidelines) and address the essential set of services and human and physical resources needed at a primary health centre to ensure a high quality standard of HIV prevention, care, and treatment to each patient. The Operations Manual includes drug



management, essential laboratory support at health centre level (standard operating procedures and quality assurance of tests), patient monitoring, quality assurance, how to integrate services, supply management, human resource management and health worker safety at health centre level, infrastructure, leadership and fiscal management. This tools is being developed as part of a WHO-USG collaboration for scaling up HIV prevention, care and ART at primary health centre level and involves many USG and other implementing partners, Ministries of Health and PLHIV groups.

District hospital (first referral) clinical care

- Second level clinical learning programme for doctors and medical officers (OI, ART, TB-HIV, mental health)

Clinical mentoring, consultation and referral

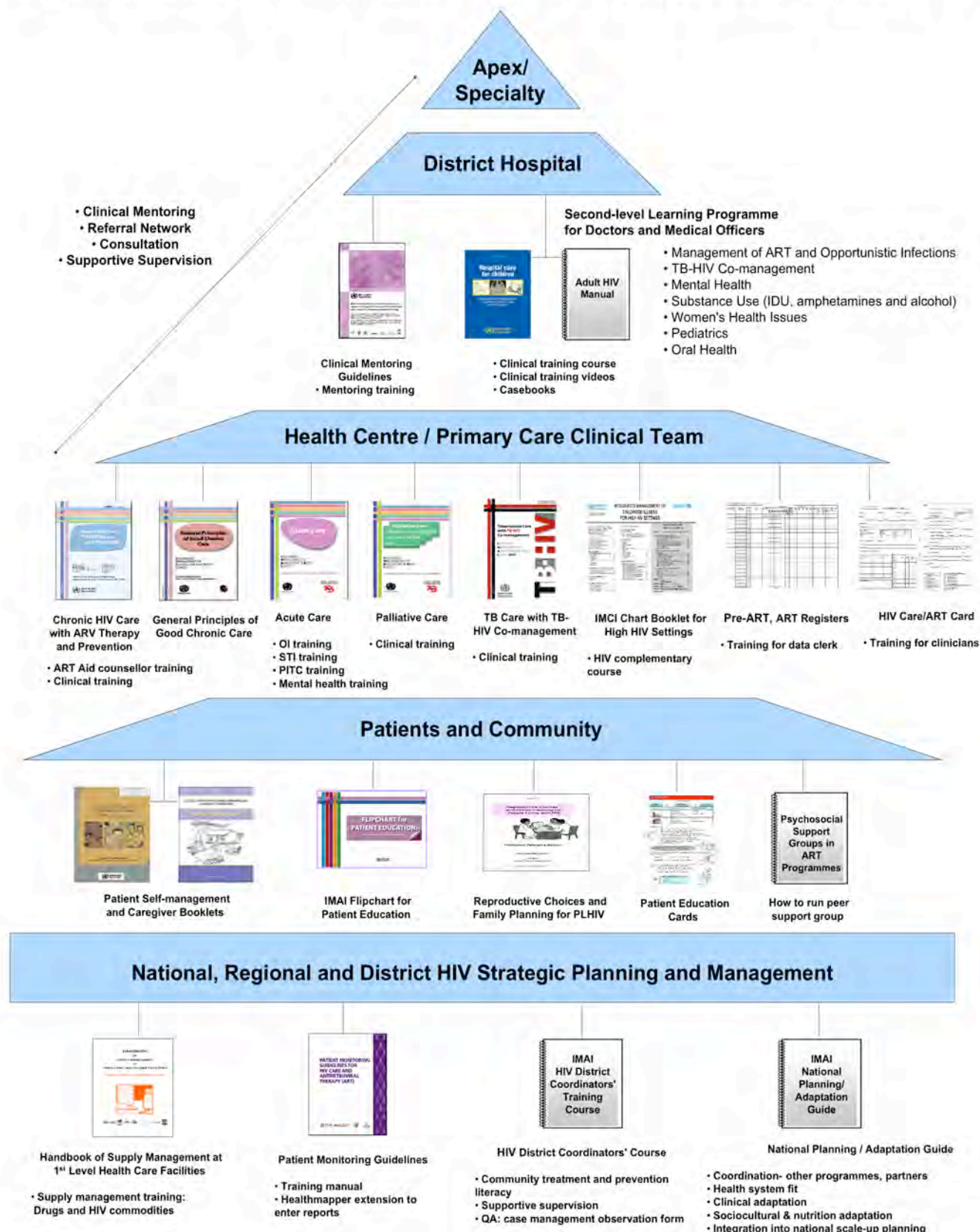
- Support from ART/OI experienced physician/paediatricians: via clinical mentoring; via referral and back-referral; and consultation

District HIV care/ART management team

- Training course (this will use the Operations Manual as a learning and job aid)
- Support strong distance communication system
- Supportive supervision by district team
 - Follow-up after training visits by district team
 - Health facility case management observation + exit interviews
- HIV care/ART, PMTCT and TB-HIV monitoring for the district management team

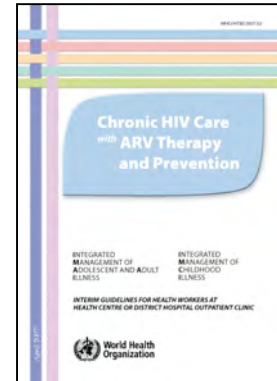


WHO Integrated Essential Package for HIV Prevention, Care and Treatment: IMAI/IMCI* and other HIV interventions – Operational Tools for Country Adaptation



2.2 IMAI Chronic HIV Care with ARV Therapy and Prevention Revision 1

This guideline module includes patient education, psychosocial support, prevention for PLHIV, clinical staging, prophylaxis (INH, cotrimoxazole, fluconazole), preparation for ARV therapy, initiation or recommendation of a fixed-dose first-line ARV regimen in patients without complications (under the supervision of an MD or medical officer), then clinical monitoring, response to side effects, adherence preparation and support, management of chronic problems, and data collection based on a simple treatment card. **Chronic HIV Care with ARV Therapy and Prevention** effectively integrates HIV care and prevention, increasing the emphasis on preventive interventions. The broader uptake of preventive interventions is essential for HIV control. Revision 1 of this guideline module includes a section on special considerations in HIV care and ART for children and pregnant women, a summary of PMTCT interventions and support for reproductive choice and family planning, psychosocial support for children, and updated post-exposure prophylaxis guidelines.



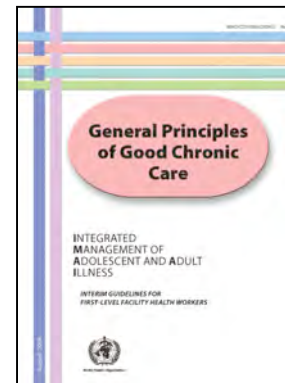
This guideline module with its training courses represents an adaptable treatment, care and prevention package.

IMAI General Principles of Good Chronic Care

IMAI supports the introduction of an effective approach to **chronic care** (including a team approach, patient partnership, inclusion of “expert patients”/peer support staff on the clinical team, and effective adherence support). This approach could permit rapid expansion of human resources for HIV care while providing the skills and clinic capacity for effective management of other chronic illnesses.

IMAI *Chronic HIV Care with ART* is based on the simplified general principles of good chronic care:

- Develop a treatment partnership with your patient.
- Focus on your patient's concerns and priorities.
- Use the 5 A's—Assess, Advice, Agree, Assist, Arrange.
- Support patient self-management.
- Organize proactive follow-up.
- Involve “expert patients,” peer educators and support staff in your health facility.
- Link the patient to community-based resources and support.
- Use written information—registers, treatment plan, and treatment cards—to document, monitor, and remind.
- Work as a clinical team.
- Assure continuity of care.



IMAI Basic HIV care/ART Clinical Training Course (5 days)

IMAI training methods avoid lecture based teaching, concentrating on practice and problem-based learning. They do not depend on very experienced or charismatic trainers; they provide materials to equip average facilitators to provide quality, standardized training. These methods include reading, written and group exercises, drills, and skill stations.



This course is aimed at first-level health workers (district outpatient departments of hospitals and health clinics) that are part of a clinical team that provides HIV care and ART. Classes are generally divided by cadre, in order to group participants with a similar level of knowledge and previous training and to facilitate free discussion. Nurses and clinical officers usually take 5 days to complete the course. Doctors take the Basic ART Clinical Training Course, but in an accelerated format of 2.5 days. This allows more time for the Second Level ART/OI Clinical Training Course, which provides more advanced training.

Course participants read the *Participant Manual for the WHO Basic ART Clinical Training Course* and practice classroom skills in simulated patient encounters facilitated by expert patient-trainers. Detailed instructions for the facilitator are contained in the first part of the *Course Director/Facilitator Guides for the WHO Basic ART Clinical & Acute Care Training Courses*.

Topics covered by the Basic ART Clinical Training Course include:

- HIV and antiretroviral drugs
- Adherence and resistance
- Assess (clinical review of symptoms and signs, medication use, side effects, complications) and provide clinical care
- Use the HIV Care/ART Card
- Prophylaxis
- Adherence preparation
- Initiate first-line ARV regimen at first-level facilities in patients without implications
- Four first-line ARV regimens
- Managing side effects and other causes of new symptoms and signs in patients on the four first-line ARV regimens
- Support ART initiation, then monitor and support adherence
- Prevention in the context of clinical care
- Provider-initiated testing and counselling: brief provider intervention
- Special considerations for ART in pregnant and post-partum women
- Special considerations in children
- Is ART working?
- Arrange—dispense, record data, schedule follow-up
- Communication, how to consult effectively, and clinical team work

IMAI ART Aid Training Course (5 days)

The ART Aid Training Course is aimed at the members of the clinical team that are involved in educating and counselling the patient. This does not have to be a trained counsellor. This course has been designed to accommodate lay people without any

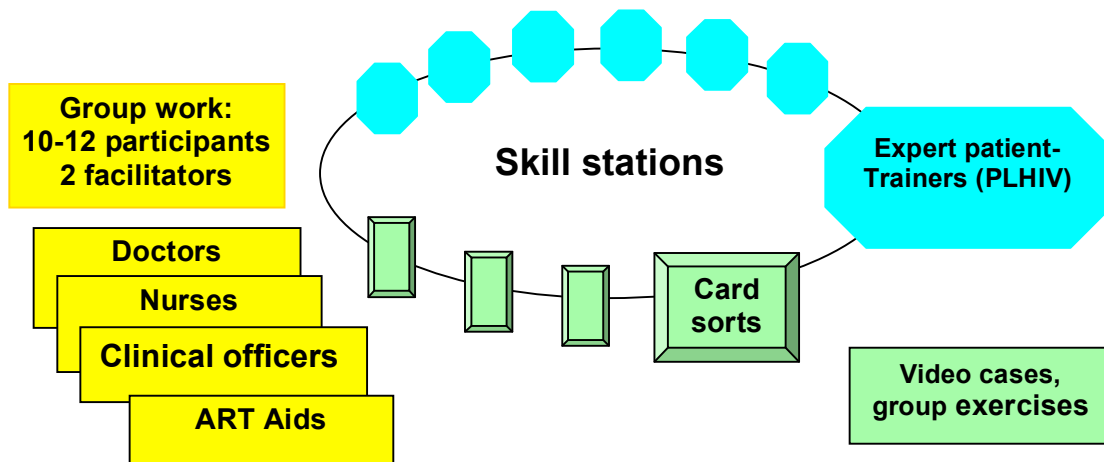
medical background. PLHIV can therefore be trained to be ART Aids and work on the clinical team by going through this course.

Detailed instructions for the facilitator are contained in the first part of the *Facilitator's Guide for the WHO Basic ART Aid Training Course*. There is no participant manual for participants; there is a set of *Handouts for the WHO Basic ART Aid Training Course* that is used for classroom instruction. As in the Basic ART Clinical Training Course, participants practice counselling in simulated patient encounters facilitated by expert patient-trainers.

Topics covered by the ART Aid Training Course include:

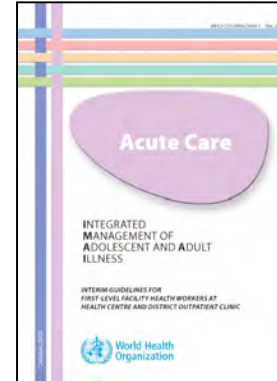
- Roles and responsibilities of the ART Aid as part of the clinical team
- Care for HIV/AIDS
- Communication skills
- Positive living
- Prevention in the context of clinical care
- Treatment available for HIV/AIDS: cotrimoxazole and ART
- Adherence preparation
- Adherence initiation
- Adherence monitoring and support
- Disclosure
- Post-test and ongoing support
- Provider-initiated testing counselling: behaviour change
- Risk assessment and risk reduction counselling

Training plan for Basic ART Clinical Training Course and ART Aid Training Course—efficient, rapid, capable of supporting continuous training



2.3 *IMAI Acute Care Rev 2 (for adolescents and adults)*

Acute Care presents a syndromic approach to the most common adult illnesses including most opportunistic infections. Clear instructions are provided so the health worker knows which patients can be managed at the first-level facility and which require referral to the district hospital or further assessment by a more senior clinician. Preparing health workers to treat the common, less severe opportunistic infections will allow them to stabilize many clinical stage 3 and 4 patients prior to ARV therapy without referral to hospital.



The acute care guidelines teach health workers when to suspect HIV infection and TB and how to recommend testing and counselling in the context of clinical care. HIV education and prevention are provided for all patients. If a patient is found to be HIV positive, this module then links with the **Chronic HIV Care** module.

Comparable acute care guidelines using the same format are already available for children—IMCI (Integrated Management of Childhood Illness). An adaptation for high HIV prevalence settings is described in the next section.

Strengthened mental health content. During Revision 1 of **Acute Care** and the **Chronic HIV Care** guideline modules, the mental health guidelines were strengthened. This included adding a box on how to provide simple, basic counselling; counselling for depression; improved assessment of HIV patients; and a table on when to start ART in patients with various mental health problems and/or substance abuse. The mental health/neurological problem short course was developed and guidance on conducting peer support groups. This was based on several mental health expert group recommendations:

- From the evidence available, treating mental health problems should assist getting people on ARV therapy and enhancing adherence. However, it was emphasized that adherence should not become the major reason for mental health interventions. Comprehensive care and quality of life of PLHIV should be the primary emphasis and motivation.
- There are many mental health related interventions which can help to improve adherence. Treating mental disorders should be included as one such intervention.

Provider-initiated testing and counselling Revision 2 of *Acute Care* were revised to address pre-test information, rapid testing in the context of clinical care, and post-test counselling.

Acute Care Revision 3 is in development. This will reflect the updated PITC operational guidelines; improve the clinical care of MSM by adding the management of proctitis and other modifications; improve the management of smear-negative TB; incorporate the emergency management of rape; and address occupational and non-occupational PEP.

A series of short courses are available or in development, based on the IMAI Acute Care guideline module.

Acute Care/OI Short Course (2.5 days)



This course teaches participants how to use the IMAI Acute Care algorithm, treatment, advise and counsel instructions in this guideline module, then concentrates on when to suspect HIV, TB case detection, and the management of patients with cough or difficult breathing, skin problems, and peripheral neuropathy.

Several additional short training courses to follow after the Acute Care/OI course have been developed and are being fieldtested:

Provider-initiated testing and counselling short course (1 day)

STI/genitourinary problems short course (2 days) with a 1 day addition on special management of sex workers.

Mental health/neurology short course (2 days) based on the mental health and neurology pages of IMAI Acute Care, emphasizing HIV complications. There is an optional 1 day course to strengthen counselling skills for clinicians.

Fever/malaria (1-2 days), in development.

These short courses share a single Acute Care Participant Training Manual which can also be used for self-learning.

The facilitator guide for these courses are included in the second part of *Course Director/Facilitator Guides for the WHO Basic ART Clinical & Acute Care Training Courses*.

The STB training module on case detection can be used if participants are not familiar with how to send sputum AFB and fill out a sputum register.

2.4 Acute care for children: IMCI-HIV chart booklet

About 75% of the children with symptomatic HIV/AIDS present before two years of age. Based on the high and rising prevalence of HIV among children less than five years of age, IMCI has been adapted to include HIV/AIDS in guidelines and training materials.



The common presenting complaints of the child with HIV/AIDS are similar to those of all children addressed by IMCI. The signs recommended in the generic IMCI algorithm for the management of the common illnesses apply to all children, irrespective of their HIV status. Except in situations where symptomatic HIV is very common, it is preferable to reserve the full assessment of the child for symptomatic HIV to those children who show certain specific signs. A combination of signs is found to identify children with symptomatic HIV infection.

The inclusion of HIV/AIDS in the IMCI materials assists health workers to identify cases early; to provide appropriate case management, support, care and ART to symptomatic children; to support the role of family and community in caring for the child with HIV/AIDS; and help enhance counselling of caretakers in HIV/AIDS.

Country adaptation and use. The HIV IMCI algorithms have been validated in South Africa, Uganda and Ethiopia. Currently 11 countries have added HIV component to the national IMCI guidelines. In general, all countries with HIV prevalence of 2% and above should integrate the management of symptomatic HIV/AIDS into their IMCI guidelines. The adaptation guide addresses the adaptation of all relevant IMCI materials, including the charts, recording forms, training materials and materials for post-training follow-up and supervision.

The role of testing. Knowledge of the HIV status of a child is very useful in counseling and continuing care of the child. Countries should make every effort to make testing accessible. The IMCI algorithm should define how the result of the test is to be used when it is available.

Management of the HIV symptomatic child includes:

- Co-trimoxazole prophylaxis against PCP
- Vitamin A supplementation
- Feeding recommendations
- Enrolment in chronic HIV care (section 12 of *IMAI Chronic HIV Care with ART*)

Training materials: the IMCI complementary course on HIV



For health workers already trained in IMCI, a three day short course has been developed by CAH. This covers when to suspect HIV, testing by age, co-trimoxazole prophylaxis, and management of opportunistic infections.

2.5 Symptom management and end-of-life care (aka Palliative Care)

The IMAI *Palliative Care* guideline module and a component of the *Patient Self Management Booklet* and *Caregiver Booklet* cover management of symptoms during acute or chronic illness, end of life care, and education of the patient, family and community caregiver. They have been developed to allow low-resource settings to achieve broad access to an essential set of palliative care interventions and target nurses and other multipurpose health workers at first-level facilities. This module covers palliative care in both children and adults.



The materials provide simplified, operationalized guidelines which can be used within a district network in low resource setting. The essential drugs for palliative care have been limited. Emphasis is placed on extending the use of oral morphine, in developing a short but efficient training course, and in preparing the patient, family and community caregivers to provide most care at home.

The *Palliative Care* module and the *Booklets* aim to greatly expand rural access to palliative care by two mechanisms: by empowering patients and lay caregivers with the appropriate education and reference materials to self-manage and give high-quality care at home, and by organizing professional palliative care on a district clinical team model. In order to expand access to palliative care, this approach assumes that most of the care will be given by the patient's family with back-up by multipurpose health workers at first - level facilities. At the same time, health workers trained to use the *Palliative Care* module should receive clinical back-up, ongoing support, and further on-the-job training over time from a district team member with more extensive palliative care training.

These efforts complement and do not replace ongoing pre-service and in-service efforts to provide more complete and extensive training to specialist palliative care nurses, clinicians, and community volunteers. The level of care that can be provided with these tools forms an essential core for the gradual expansion of the care based on further training of health workers and on the deployment of more fully trained specialist palliative care nurses and clinical officers and further training of community caregivers.

Palliative Care Course (3.5 days)



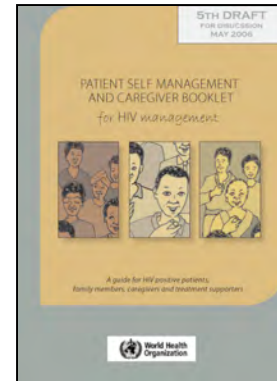
This training has been developed to equip first level facility health workers with knowledge and skills in symptom management, home based care and end of life care. The training includes education of patients and caregivers in home care so that the health worker, caregiver and patient can work as members of an integrated health team providing adequate care both at the health centre and at home.

The materials address the clinical realities that the nurse or clinical aid meets every day. There are very short explanatory chapters, cases studies, written exercises, videos and demonstrations, card sort exercises and skill stations. The course covers the following topics:

- Introduction to palliative care- both symptom management and end-of-life care
- Overview on managing the palliative care patient
- Pain control
- Preparation of patients to care for themselves
- Educate family to provide good care at home
- Prevention for all patients during home care
- Special considerations in HIV/AIDS care
- Support community caregivers, family, siblings, and friends
- Help provide or facilitate psychosocial and spiritual support
- Special advice for end-of-life care
- Bereavement counselling
- Using palliative care to encourage disclosure and prevention
- Preventing and responding to burn-out

2.6 *Patient Self-Management Booklet*

The *Patient Self-Management Booklet* is designed to be used both by patients (clients), treatment supporters, and caregivers who provide care for them at home. It is formulated in language and illustrations that can be easily understood by patients and lay caregivers. (However, this draft assumes quite literate patients (clients) and needs careful country adaptation. Simplified, smaller booklets for less literate clients are in development.) Health workers use the booklet as a tool to teach patients and provide them with the information and skills that the patients can then use when at home when they need to manage their own problems.



The main objective of this booklet is to empower patients to take care of themselves, giving them skills to progressively gain a problem solving attitude (rather than informing them only)

This booklet addresses the following:

- What HIV is
- Prevention: both for positives and HIV negative family members and caregivers
- Positive living with HIV
- What ART is and how to best adhere to the treatment
- When to seek care from the health worker
- Management of common symptoms and side effects

Since it is used as a communication aid and as a tool to be used daily by the patient with HIV, the *Patient Self-Management Booklet* needs to be socioculturally adapted in a process that addresses culture, language, and local availability of particular foods and remedies.

All IMAI training courses emphasize patient self management as necessary component of HIV care and empowerment of family, friends and community at large for daily care with back-up from the facility on an as needed basis and during scheduled follow-up visits.

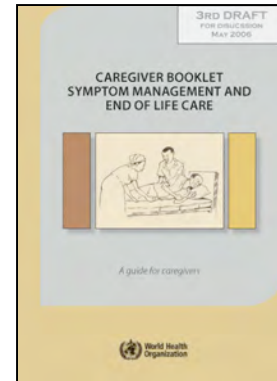
In particular, the ART Aid course teaches health workers how to inform, educate and empower people living with HIV/AIDS to manage their disease. The *Booklet* is used as one of the communication aids reinforcing the information and skills empowerment at the facility. In addition, the health worker educates patients on how to use the booklet at home as a reference and back up to their problems.

Community health workers will use the *Booklet* in the same way—training material are in development which complement the ART Aid training course.

2.7 *Caregiver Booklet*

The *Caregiver Booklet* is designed to help patients, family members, and community caregivers in the home-based care of serious long term illness. Home care is best for many people with long term illnesses, including those who are close to the end of life. All patients being cared for at home should be first assessed and treated by a health worker, who will help caregivers provide high quality home care and ensure that medicines are taken correctly.

The booklet should be given to the patient or caregiver and its contents explained by a nurse or community worker.



Chapters include:

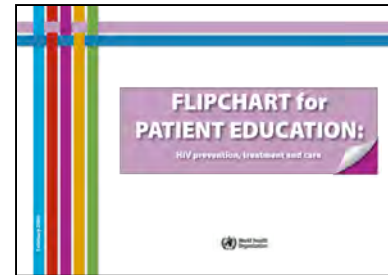
- How to prevent problems
- Management of common symptoms
- When to seek care from the health worker
- How to be an ART, TB, or TB- ART treatment supporter
- Care of children
- Special advice on psychosocial support
- Emotional and practical preparation for death

Although focused particularly on patients with HIV infection, the booklet can also be used for HIV negative patients with other chronic health problems.

The Palliative Care course also teaches health workers to use sections of this booklet with patients and caregivers, including prevention and management of common problems, care for children, special advice on psychosocial support, and preparation for death. The booklet is useful for both HIV positive and negative patients requiring home-based care.

2.8 *Flipchart for Patient Education*

This draft updated flipchart is a communication aid to be used at the health facility as well as by community health workers when education and training patients, family and caregivers. It provides essential information, offers tips and guidance and how to communicate with patients. The method used is based upon simple and effective messages conveyed to patients and caregiver by simple illustrations. In general the flipchart is used with HIV positive patients and their families and caregivers, but some of the sections such as prevention can be used for HIV negative patients.



The flipchart covers the following topics:

- Prevention
- Positive living
- How HIV attacks your health
- ART basics
- Self management: how to take care of yourself when HIV+

There is an additional, complementary flipchart on *Reproductive Choices and Family Planning* (see section ..).

Sociocultural adaptation of the flipchart with pretesting in each country is essential.



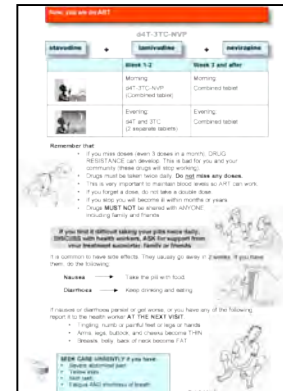
Training in use of the *Flipchart for Patient Education*:

The ART Aid course and the Basic ART clinical course both teach participants to use the flipchart. Both courses use expert-patient trainers.

2.9 Patient treatment cards

The patient treatment cards (one for each of the four first-line regimens) are used by health care workers when informing and educating patients in what it means to take ART—when and how to take their pills, how to manage mild side effects and when to seek care from the facility. In addition, prevention interventions such as safer sex are addressed.

The cards are also in the *Patient Self-Management and Caregiver Booklet* so that both the patient, caregiver and treatment supporter can consult daily when needed.



Training materials

Training in the use of the patient treatment cards:

All IMAI courses teach health workers how to use the patient treatment cards when starting ART, when monitoring and supporting adherence and when educating about prevention.

As with all patient self-management material, they are used as an aid to empower the patient with skills which enable them to solve simple problems appropriately and recognize the complicated ones which need care from the health worker.

2.10 Facilitator Guide to the Preparation of Expert Patient-Trainers



Training materials

Involvement of PLHIV as patients who are experts in their own illness can be a valuable educational strategy to support the training of health workers. This is a very effective training intervention, and also addresses effectively the need of increased number of trainers necessary for capacity building during rapid ART scale-up.

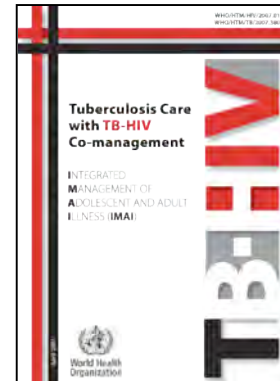
In both the Basic ART Clinical Course and ART Aid course, people living with HIV/AIDS (PLHIV) and/or on ART are trained in order to facilitate the WHO Basic ART Clinical and the WHO Basic ART Aid Training Courses. The goal is to have PLHIV who are experts in their own illness involved in training health workers. These PLHIV are trained to portray specific cases (that are often but not necessarily similar to their own life experiences), in the general principles of good chronic care, the 5 A's, good communication skills, patient education, how to accurately portray the simulated HIV cases for role-plays (with the clinical officers, nurses, aids) and how to give constructive, non-judgmental feedback.

Through skill stations, health workers practice clinical skills learnt in the classroom with the “expert patient-trainer,” who then provides a non-judgmental assessment of the health worker by giving feedback through a case-specific checklist. The course facilitator is present during these skill stations and also observes these interactions. Subsequently in class the facilitator reviews specific skills and training material which need further clarification. The expert patient-trainers add much needed reality to the instruction of HIV care and ART in a resource-limited setting in an efficient manner, thereby contributing to rapid scale-up. This can be helpful not only to the health workers being trained, but also to the course facilitators and the patients themselves.

2.11 TB Care with TB-HIV Co-management guideline module

This new guideline module addresses:

- First-level tuberculosis diagnosis and treatment in both HIV-positive and HIV-negative patients
- How to recommend testing for HIV in TB suspects and TB patients
- Special management for suspected smear-negative TB in HIV-positive patients to assure rapid treatment
- How to provide HIV and TB education
- Co-management of TB and HIV, including chronic HIV care for TB patients and the initiation and timing of ART
- Prepare the TB or TB-HIV patient for adherence
- Decide on approach to adherence support
- Prepare the patient's TB Treatment Card
- Preparation of TB-ART treatment supporters
- How to monitor common TB-ART co-treatment regimens (based on the district clinician's treatment plan)
- How to respond to side effects in patients on TB-ART co-treatment
- Give preventive therapy (cotrimoxazole, isoniazid to household contacts, BCG)
- Prevention by PLHIV
- Determine TB treatment outcome
- Monitor HIV clinical status and provide HIV care throughout the entire period of TB treatment
- Support the TB or TB-HIV patient throughout the entire period of treatment including preparation of treatment supporters
- Monitor TB or TB-ART co-treatment
- Special considerations in children .
- How to prevent TB transmission in the health facility



TB care with TB-HIV Co-management, guideline module is suitable for countries with a high burden of TB and HIV. The guidelines are fully integrated with already existing IMAI materials in the context of a district approach to scale-up HIV prevention, care and treatment. The IMAI tools operationalize TB-HIV policy recommendations for effective TB, HIV and TB-HIV co-managements at district level.

TB care with TB-HIV Co-management is based on the STB training course and reference booklet *Management of Tuberculosis Training for Health Facility Staff* and updated WHO normative guidelines for ART and TB infection control .

The guideline module assumes health workers can consult or refer with a doctor or medical officer at the district hospital, either on-site or by established methods of communication and referral and back-referral. The district TB coordinator and district HIV coordinator need to work together to co-supervise and co-sponsor this care.

Training courses on TB-HIV co-management and TB infection control for health workers at first-level facilities and for district clinicians



This 2 day training course is based on the *TB Care with TB-HIV Co-management* guideline module. This course assumes prior training with the IMAI basic HIV care/ART clinical training course and basic TB training (using the STB training course for first-level facilities or other comparable training). Interactive methods including drills, skill stations, and presentation of cases by PLHIV expert patient-trainers are used. TB-ART co-treatment. The training materials will guide first-level facility health workers in the management of HIV positive TB patients without complications, clearly indicating when to refer or seek advice from the district doctor, and how to manage TB-ART co-treatment, how to support adherence, and to coordinate TB-HIV care.

Training materials for the medical officer or doctor on how to establish the TB-ART co-treatment plan and manage complicated cases are included in the IMAI Second Level Learning Programme (see section 2.19).

2.12 Adolescent Job Aid and Short Course (in development)

Young people (15-24 years) remain at the centre of the HIV/AIDS epidemic in terms of vulnerability, transmission, impact and potential for change. Young people, adolescents (10-19 years) in particular, are not simply small adults. They go through a period of rapid physical and psycho-social development as they move from childhood to adulthood, and must learn to cope with a range of new roles, responsibilities and expectations. They frequently do not have the information and skills that they need, nor the access to health services or the community support structures that adults have available to them. In addition, they are much more vulnerable to sexual exploitation and abuse, and may be more exposed to stigma and discrimination.



The changes that take place during adolescents have a number of repercussions. They may have an impact on how diseases manifest themselves or progress, whether or not young people will visit health services or comply with treatment regimes, and the support structures that they have available to them at home and in the community. They have different needs, and frequently require different approaches if the prevention, care and treatment of this age group is to be appropriate and effective. This does not necessarily mean that they need different services, but primary health care workers need to know how to make the services that they are responsible for providing "adolescent-friendly", and how to be able to respond to the specific needs of this group of patients.

If health workers are to do this, they need to know how to deal with adolescents: how to talk to them in ways that will not put them off; the need to give particular attention to prevention; how to deal with issues of consent and confidentiality; how to provide counselling and support if the patient is 16 years old, rather than 26; what organizations are available in the community that can help young people obtain information and develop the skills that they need to delay the initiation of sex, limit their partners, and use condoms correctly and consistently if they are having sex (and to know that condoms **are** dual protection).



Training materials

Short training courses materials on special considerations in adolescents (1 day) and to support the use of the *Adolescent Job Aid* are in development.

The IMAI Training Module on Adolescents Living with HIV is currently in draft form awaiting field testing. This module provides health workers with an overview of the special issues that health workers need to know to provide effective treatment, care, support and prevention for adolescents living with HIV. It has been developed to link with (a) the Adolescent Job Aid, which is a desktop aide memoir for health workers focusing on issues of particular importance to adolescents and youth (also in draft form and awaiting field testing), and (b) the HIV and Adolescents module which is part of the WHO Orientation Programme (OP) on Adolescent Health for Health-care Providers http://www.who.int/child-adolescent-health/publications/ADH/ISBN_92_4_159126_9.htm

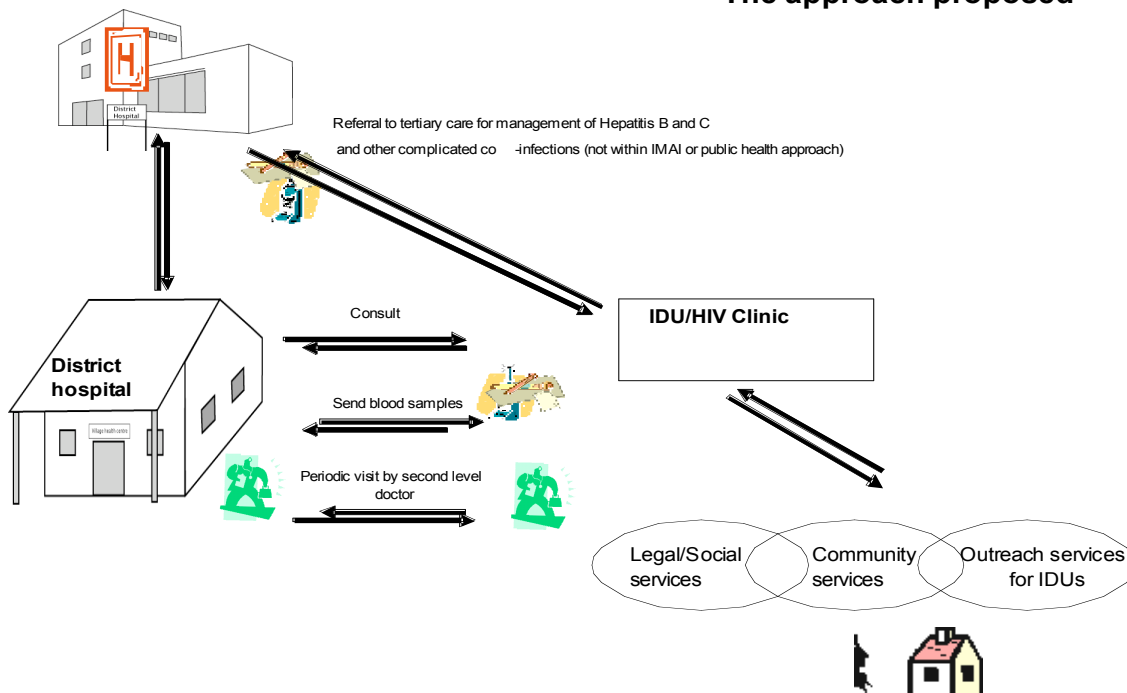
2.13 IMAI IDU modifications (draft, for further review)

In response to requests from countries where HIV is linked to injecting drug use, IDU modifications of *Acute Care* and *Chronic HIV Care with ART* have been developed and are currently undergoing final review.



These tools aim to serve a IDU/HIV clinic as "one stop shop" that can potentially be placed in HIV clinics, detoxification/drug substitution programmes, closed settings and centres with clinical services for IDU. In the "one stop shop," comprehensive integrated management of HIV and IDU related conditions will be provided with the necessary links both to community and outreach services and district and tertiary care services. The "one stop shop" will provide all services in order to respond to the difficulties of referral—frequent in this sub-group of patients—and will make efficient use of the district and tertiary care services, referring only for management of hepatitis C or other severe conditions. At the same time, it will make use of community and outreach services by the establishment of a bi-directional link extended to the patient's home.

The approach proposed



IMAI adaptation serves the needs of the IDU/HIV "one stop shop" clinic and of the district hospital. It represents a component of a more comprehensive strategy that includes the whole range of community services (outreach, legal, social, etc) and the tertiary care level service.

This approach requires adaptation to national and local context to take into account legal and policy issues; availability of services in the public system, closed settings, NGOs;

availability of clinical services within the detoxification/drug substitution programme; regulation of detoxification/drug substitution programmes; local terms ("slang" / "lingo"); and availability of community services: outreach, social, support services

The "one stop shop" will provide comprehensive HIV services and management of IDU related conditions ON SITE as follows:

- Chronic HIV chronic care: including TB-HIV management and co-treatment, family planning, PMTCT, and other primary care services (STI management, etc)
- Harm reduction
- Additional (special) adherence support
- Additional clinical and laboratory assessment
- Management of specific acute conditions
- Managing opioid drug substitution (OST) and detoxification
- Hepatitis B immunization
- Linking with community outreach and public and legal services

The IDU HIV-positive patient—considered as a complicated patient—requires regular consultation with a doctor due to the possibility of co-infections, severe OIs, periodic non-routine lab exams, and for ART initiation. As such, the "one stop shop" clinic will need to have an easy consultation (by phone or any other communication means) with the second care level (district or regional doctor), periodic planned visits by the doctor, referral and back-referral for management of hepatitis C and other severe co-infections and bi-directional link with the community services (outreach/legal/social services).

The IMAI IDU adaptation are as follows:

- **Acute Care adaptations:**
 - *Mental health:* When to suspect and how to ask about IDU; signs of opiate and cocaine/amphetamine intoxication and withdrawal; management of opiate overdose; how to assess and treat these conditions and when to refer.
 - *Harm reduction box:* a section on prevention in IDU including safer injection procedures; how to avoid risk of transmitting HIV and hepatitis B and C; how to inject safely and to avoid infections.
 - *Drug substitution programs:* Based on the 5As, this section provides recommendation on how to establish a relationship of trust with the patient and guide him/her through the decision to start a drug substitution program, providing inclusion and exclusion criteria and methadone and buprenorphine protocols.
- **Chronic HIV Care with ART and Prevention:**
 - Care and prevention measures for IDUs (harm reduction) have been added into the 'sequence of care after positive HIV test' section, to sensitize health care providers that comprehensive clinical care includes management of drug use.
 - When to start ART: It has been emphasized that whenever possible, drug substitution or detoxification should be started prior to commencing ART.
 - Interaction with ARV and ART-methadone co-treatment side effects
 - Special consideration for HIV+ IDU

- Special adherence support: efforts are required including directly observed therapy or partially observed therapy (for example, the morning ARV dose could be dispensed at the same time as methadone).
- Psychosocial support



- **IDU short course:** The IDU modifications will supported by a short training course for providers at primary care facilities (in development).
- **IDU within the Second level clinical learning programme:** including IDU complications; starting ART in IDU; co-treatment with ART and opioid substitution therapy; hepatitis management.

2.14 Supply Management at First-level Health Care Facilities

The success of antiretroviral therapy (ART) for the patient relies, on a consistent supply of effective medicines, including antiretroviral (ARV) drugs. Prolonged stock-outs of ARVs can be life-threatening. The health worker responsible for managing the drug supply at a facility is therefore critical to the clinical success and well-being of people living with HIV and AIDS who are on therapy. This is true for many diseases, both acute and chronic, and emphasizes the importance of a well-managed drug supply at the facility level.



While as much as possible ARV's and other HIV/AIDS drugs should be managed within the existing medicines supply system, there are unique considerations that must be taken into account at the health centre level to facilitate efforts to rapidly increase access to HIV/AIDS medicines. This is particularly true for issues of drug supply security and ordering/estimation of drugs, for which there are unique protocols for ARV's and other drugs associated with chronic HIV care.

The *Handbook of Supply Management at First-level Health Care Facilities* describes the standard procedures of drug supply management. Although the handbook emphasizes the management of drugs used to treat HIV/AIDS and its associated conditions, it is applicable to the management of all drugs and diagnostics at the first-level facility. The handbook chapters include:

- How supplies are received
- How the drug store is prepared
- How supplies are organized
- How records are kept
- How supplies are ordered
- How drugs are dispensed
- How payment is received
- Field visits / Post-training support
- Annex:
 - Patient information leaflets (by regimen);
 - Model list of essential medicines, diagnostics, and supplies to be stocked at a first-level facility;
 - Copies of all drug supply and patient monitoring form

This handbook is intended to be used as the basis for adaptation of a country manual, at the national level, and therefore in many instances offers multiple options from which to choose (e.g. ordering protocols and/or forms) or includes modules that may not be relevant for every setting (e.g. guidelines for receipt of payment).



Training for supply management at the first-level facility

The handbook and accompanying training materials (facilitator's guide and exercises) can be used either as part of an integrated approach to training and capacity building at the facility level, in conjunction with IMAI scale-up training, or for training first-level facility staff independent of IMAI.

Didactic training using this handbook (in a workshop) will be followed by a post-training field visit as part of an ongoing monitoring and support structure to ensure the implementation of what is learnt. This post-training visit with on-site training, support for establishing sound drug supply management, and problem solving will be based on an approach developed in the IMCI drug supply management course.

2.15 HIV Care/ART Patient Monitoring for the Clinical Team

Patient monitoring is the routine collection, compilation and analysis of data on patients over time and across service delivery points.

Information is usually collected on a patient record then key data are transferred to chronic care registers (pre-ART and ART registers). A patient monitoring system based on chronic care registers helps clinical teams organize the care of groups of patients. A small proportion of this aggregated data goes "up" through the preparation of reports and is also used for programme monitoring. Systems may be partially or fully electronic and vary as to what point data are entered into a computer, if at all – from the reports or registers, or directly from the individual patient records. WHO has developed a simple electronic tool to facilitate aggregating the reports (see section 2.18).



These data are best collected and stored at the *health facility*, and include basic patient demographic characteristics and contact information; information related to patient HIV care and ART history; and patient encounter information collected at each visit.

A patient monitoring system is the backbone of clinical care, treatment and prevention by the clinical team caring for groups of patients. In many health facilities, most HIV care is currently episodic acute care with the exception of TB treatment. Establishing good chronic HIV care including ART requires forming and preparing a clinical team to provide continuity of HIV care. A key element of continuity of care is keeping a record which summarizes each patient's care and allows each health worker or counsellor to understand what has happened before. The *Patient Monitoring Guidelines for HIV Care and ART* provide an agreed list of essential minimum standard HIV care and ART patient monitoring data elements and their definitions. These can be collected in a variety of ways with different formats of patient cards or records.

Simplified cohort analysis is a key component of ART patient monitoring. Cohort analysis compares baseline characteristics of patients who started on ART, with their status at 6 and 12 months, then yearly. The simplified ART cohort analysis form can be filled out by most clinical teams and can provide important immediate feedback on success in keeping patients on first-line regimens and other key outcome indicators.

The patient monitoring system also allows clinical teams to tabulate and report on a monthly or quarterly basis on the numbers newly enrolled and cumulative in HIV care and ART, the number currently on ART, and the numbers waiting for ART.

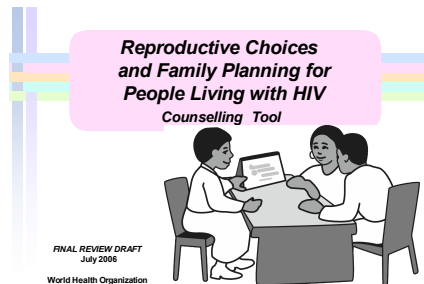
An effective patient monitoring system should be standardized and allow for continuity, referral and communication between all levels of care – from records kept by the patient, family or community treatment supporter; to the first-level facility; to the district hospital; to further referral to specialist physicians or for laboratory examinations. The system should be appropriate for adults, children and pregnant women.

Training Materials available for HIV Care/ART Patient Monitoring by the Clinical Team



- Participant Training Manual for HIV Care/ART Patient Monitoring by the Clinical Team at First-Level Health Facilities. This includes:
 - Exercise booklet
 - Blank forms
 - Sample patient cards, preART and ART registers, quarterly and cohort analysis reports for exercises
- Chapter 6 in the Participant Training Manual for the WHO Basic ART Clinical Course (and the corresponding section of the Course Director/Facilitator Guide) explains how to fill out the HIV care/ART card.
- IMAI ART Aid Training Course explains how to fill out the counselling and education part of the HIV care/ART card.

2.16 Reproductive Choices and Family Planning for People Living with HIV



The simplified technical guidance for health workers on reproductive choices and family planning is presented as an interactive tool in flipchart format for use during counselling.

This two day training course focuses on safer sex, contraceptive methods, reproductive choices including considering pregnancy and unwanted pregnancy specifically for HIV-infected women, men and couples. Also includes a participant reference manual and facilitator's guide.



2.17 Second Level HIV Clinical Learning Programme for District Hospital Clinicians

The WHO IMAI/IMCI Second Level HIV Clinical Learning Programme consists of clinical manuals, an introductory training course and materials to support ongoing learning after initial in-service training.

The programme is targeted at multi-purpose doctors, medical officers, and general practitioners working as clinicians at district hospitals in low resource settings. It may also be appropriate for clinical officers or experienced nurse clinicians in some settings. This learning programme supports task-shifting of most ART and OI case from specialized physicians and paediatricians to generalist doctors and medical officers working in a district hospital. It is an essential complement to the primary care materials in the WHO IMAI approach to scaling up HIV services, capacitating district medical officers to support primary care clinical teams in the care of HIV patients and to manage referrals of patients with severe problems. This builds a functional district network.

The WHO IMAI team has organized an international collaborative process to fully develop the second level learning programme. The programme is framed in the public health approach to scaling up access to high quality HIV care and treatment. One of the major purposes of the development process is to harmonize the approach to training district doctors. Currently more than 30 organizations are involved in the development process which is open to new collaborators.

Context:

The learning programme includes:

- initial in-service training course (case-based and interactive)
- an adult HIV clinical manual (in development)
- a paediatric clinical manual (the current pocket book with a supplement)
- materials to support on- going learning and support using short courses
- clinical mentoring after initial training
- clinical casebooks (for use during the initial training course and on follow-on visits by clinical mentor)
- clinical training videos



The learning programme addresses second-level management of ART and opportunistic infections, TB-HIV co-management, mental health, substance use (IDU, amphetamines and alcohol), women's health issues (including management of ART in pregnant women), and paediatrics. The learning programme focuses on the most common conditions that require management at the district hospital.

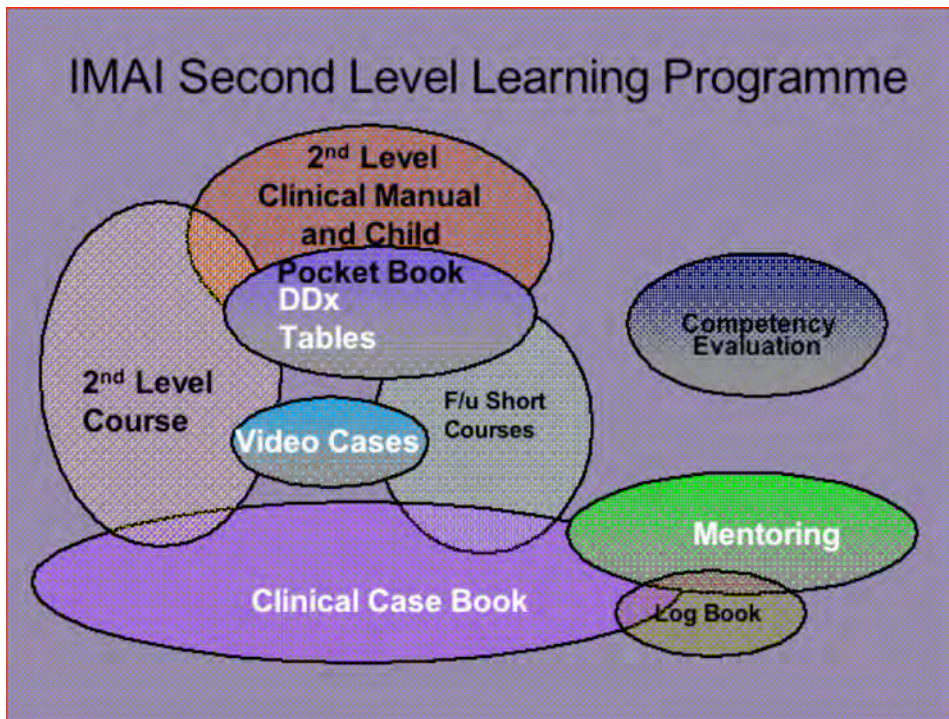
The second level learning programme begins with an in-service course (or with comparable pre-service training). Doctors and medical officers first go through the IMAI basic HIV care/ART course in 2.5 days and then take the second level training course designed specifically for district doctors over 4.5 days (The previous version of the second level course, adapted for Tanzania, is currently on the IMAI CD and the

Sharepoint website.) An interactive and case-based approach to learning is used, including interactions with expert patient trainers and hospital and clinic visits.

Mentoring and follow-up training are integral to the IMAI approach to doctor training (and to the doctor's support to the rest of the clinical team). Other components of the learning programme include follow-up short courses, clinical mentoring, clinical case book exercises, and video case presentations. These support doctors to further develop their HIV care skills and expanding on their knowledge. The follow-up courses help to solidify existing experience and training as well as expand knowledge around a particular topic, such as paediatric ART or TB-HIV. The learning programme is aimed at filling a gap in the availability of high-quality and tested tools targeted specifically at the district level multi-purpose doctor which match with available diagnostic tests. With a broad-based, international and collaborative development process, we are harmonizing the approach to training at the district level. This will lead to wider access to higher quality HIV care in low resource settings.

The IMAI Second Level HIV Clinical Learning Programme is being realized in a generic format for country adaptation (as with all the IMAI materials) and will be available for use by anyone interested. This project is closely linked with a project that provide IMAI content for revision of pre-service curricula for doctors, nurses, and clinical officers.

There are already more than 30 organizations and 15 countries involved in the development process. If you or your organization is interested in participating in the development process, please contact Kirsty McHarry at WHO mcharryk@who.int or the learning programme technical coordinator, F. Ramzi Asfour, ramzi@oiseau.biz.



2.18 District Management

In the IMAI approach to decentralized HIV care, ART and prevention delivery, the district office is responsible for many administrative and supervisory activities crucial to the proper functioning of the range of services required for HIV control.



The decentralized approach has to address the needs of the district in terms of ART and other HIV services targets (such as testing, PMTCT, chronic HIV care), and has to build on what is already available and involve the local partners, stakeholder and resources. Although the process is similar in all districts, only local managers, familiar with local reality, would be able to "tailor" the approach to a specific district.

A typical district has a population of more than 100,000 people. Depending on the size and resources of the district, the district office may have one person or a team of people who acts as the focal point for HIV-related activities.

District planning needs to address several components:

- Assessment of HIV scale-up needs (ART target, testing, PMTCT, etc.)
- Assessment of available services
- Assessment of lacking services
- Planning for scale-up (including management of the available resources and estimate of what is needed)
- Orienting and optimizing entry points
- Preparing the community and social marketing
- Planning capacity building
- Establishing distance communication for clinical team support
- Follow-up support and supervision after training: the district office will also be responsible for ensuring follow-up after IMAI training. Follow-up after training visits are an important part of capacity building, particularly when new HIV services are being introduced. Additionally, the system of referral and clinical mentoring is also important to ensure on-going learning by health workers and should be managed by the district office.
- Medicine diagnostics and health supplies
- Patient monitoring should be managed and supervised by someone on the district management team, often a health information officer
- Prevention acceleration



Scaling-up HIV care, ART and prevention: The IMAI training course for district HIV coordinators

This course focuses on the role of the district HIV coordinator in the context of rapid scale-up of HIV care/ART and an emergency response to the HIV epidemic. It does not teach clinical skills and knowledge.

The target of this training course is the district (and regional) HIV coordinator. This person may be someone who works solely on HIV control, but often is someone who has additional duties, such as TB or communicable diseases. The course assumes previous training on general management and planning and on district TB program management.

The process of scale-up requires a careful mapping of existing HIV services and an estimate of the need in the district. From this, training of health workers can be efficiently planned, using an integrated approach that combines modules on chronic HIV care/ART with other needed training modules on PMTCT, TB-HIV, provider-initiated testing and counselling, etc.

There are 10 modules in this course and an exercise booklet. Forms for gathering data on the current status of services in the district are sent out before the course then used during exercises during the course:

- Module A: Introduction to IMAI
- Module B: Planning
- Module C: Prevention Acceleration
- Module D: Preparing the community and social marketing
- Module E: Capacity building for clinical teams in the district
- Module F: Entry points and coordinated HIV service delivery
- Module G: HIV care/ART patient monitoring
- Module H: Follow-up after training and quality improvement
- Module I: Medicines, diagnostics, health supplies
- Module J: Evaluation

To date, this course have been field-tested and iteratively improved in multiple countries including Zambia, Uganda, Ethiopia, Lesotho, Nigeria and Eastern Cape Province, RSA.

Additional modules will be added from RAPID (Rapid Acceleration of Prevention In Districts). These are district tools for working towards universal access to HIV prevention by strengthening health sector planning, co-ordination and practice at district level. Four draft TRAINING MODULES are being finalized at HQ with regional input:

1. Strengthening the role of the district health officer in co-ordination HIV prevention
2. Multi-sectoral planning for HIV prevention at district level
3. Accessing and working with the groups most affected
4. Preparing communities for an acceleration in HIV prevention, treatments and care

Contact at WHO for the RAPID modules: oreillyk@who.int

2.19 HIV Care/ART Patient Monitoring for the District Management Team

A patient monitoring system based on chronic care registers helps clinical teams organize the care of groups of patients. A small proportion of this aggregated data goes "up" and is also used for programme monitoring.



The district management team should be familiar with and understand all the components of the patient monitoring system as described previously (for the Clinical Team). This team is led by a district ART coordinator, overall responsible for aggregate data collection and reporting from facilities. This may be a specific person with monitoring responsibility. Core duties include to:

- Enter data from paper forms to registers or transferring data from paper forms to electronic database at different stages of data aggregation (WHO has developed a simple and customizable electronic data entry interface in HealthMapper to facilitate aggregation and reporting at the district level and up);
- Supervise and ensure proper HIV care/ART at health facilities in district;
- Regular facility visits and periodic survey of patient monitoring system (clinical team performance, case management, TB monitoring);
- Supervise and assist with patient monitoring and facility-based data reporting (make sure cards and registers are appropriately filled out);
- Review, recalculate, finalize, and transmit facility-level cohort analysis forms;
- Aggregate facility-level data from all HIV care/ART facilities in the district and transmit;
- Analyse and report on district level indicators to national level;
- Manage patient transfers within district and to other districts; and
- Manage drug supply.

Quality assurance efforts after training are well served by a simple standardized patient monitoring system which can help clinical teams organize their work, and maintain a sense of the needs and status of their HIV patients as a group. Making sure specific clinical parameters are assessed on a routine basis can facilitate better clinical care and serve as a supervisory tool. Patient monitoring also includes a system to follow patients when they are referred to special services or transfer from one facility to another.

Training materials available for HIV Care/ART Patient Monitoring by the District Management Team

- Module in the IMAI District HIV Coordinator Course
- Participant Training Manual for HIV Care/ART Patient Monitoring by the Clinical Team at First-Level Health Facilities with Exercise Booklet and forms
- IMAI Basic ART Clinical Training Course
- HealthMapper ART Monitoring Extension User's Guide with exercises.



2.20 Clinical mentoring

Clinical mentoring visits and back-up by phone after HIV care/ART training for case review, problem solving, quality assurance, and continuing education are key to building successful district networks for HIV care. This requires expertise in ART/OI management that is often not found on the district management team. A clinical mentor is an experienced clinician with substantial ART and OI expertise who is able to respond to questions, to review clinical cases, and to provide ongoing training by providing feedback and assisting in case management during on-site visits. Clinical mentoring should therefore be viewed as a continuation of initial didactic/classroom training and is an integral part of the education of all health workers.

Clinical mentoring provides on-site support to get clinical teams started, ongoing training, quality assurance, and direct support for the management of patients with complications or severe illness. This is especially important early in scale-up when more patients are very sick and to manage complicated HIV-TB patients. Clinical mentoring needs to be budgeted, planned, and integrated into the existing health system. Mentors need to be trained; this training includes interpersonal skills, effective case review, how to support and use the patient monitoring system, and how to provide supportive supervision for clinical team's delivery of good chronic HIV care with ART and prevention.

Guidelines for developing a national system of clinical mentoring are available, based on two expert consultations ()

Training materials available for clinical mentoring

- A one-week training course on how to be a clinical mentor is in draft. This orients clinical mentors to the public health approach and their role in scaling up HIV prevention care and treatment within a district network; using and supporting the patient monitoring system during mentoring; interpersonal skills required for effective mentoring; effective approaches to case review; mentor support for prevention scale-up; supporting on-going learning (guideline updates, mentor as traveling trainer, continuing medical education and support for health worker career development); mentor support to health worker HIV prevention and priority care and treatment; and planning a regional mentoring system.



2.21 IMAI national adaptation and planning guide (in development)

The IMAI guidelines for national adaptation and implementation, presented in section 3 of this briefing document, are being developed into a national adaptation and planning guide. The target audience include national and regional HIV programme managers and WHO and agency staff involved in supporting IMAI adaptation and implementation.

Adaptation areas:

- **Which tools in the toolkit to use and prevention strategy decisions on which high risk groups to target** with outreach and special interventions within special facilities or providers. This fits IMAI/IMCI to the HIV epidemiology and to existing HIV services and approaches.
- **Fit to health system and service delivery model(s)**
 - Which facilities?
 - What health worker cadres? This adaptation is an essential step in the IMAI support for task-shifting, based on human resource planning.
 - Decentralized HIV care and ART- can nurses or clinical officers initiate ART in uncomplicated patients, or only recommend (with doctor prescription or under standing orders)?
 - Can PLHIVs be trained and paid to work on the clinical team?
 - What community-based workers to use
- **Clinical adaptation** of the relevant IMAI/IMCI guideline modules & training materials & patient self-management and education materials
- **Sociocultural adaptation:**

Sociocultural adaptation is important to strengthen the messages in the IMAI materials based on local conditions and experience; to identify best expressions and explanations for adherence and resistance; to strengthen the approach to prevention, taking into account behaviours and cultural norms and gender relationships; to counter myths; to improve the effectiveness of the illustrations; to improve the language (this is more than translation); and, for symptom management, to identify safe effective local remedies or use of traditional healers.

In the emergency scale-up with rapid adaptation and implementation of materials, clinical adaptation has often proceeded with sociocultural adaptation requiring a separate effort.

- **What requires sociocultural adaptation:**
 - Patient education flipchart
 - Patient Treatment Cards
 - Patient Self-Management Booklet
 - Caregiver Booklet
 - Sections of the guidelines and various explanations within the training materials
- **Unit of adaptation:** This adaptation at minimum needs to take place in each country and likely in each region in many countries in which they are

to be used if they are to have local significance and effectiveness and community/PLHIV ownership.

- **A draft sociocultural adaptation protocol is available to guide the adaptation**
- **Adaptation of the nutrition recommendations** Locally available energy- and nutrient- rich foods need to be identified which are acceptable to support adults with undernutrition or persistent diarrhoea.
- **Adaptation of the patient monitoring tools**

Note: Country adaptation is an important step which benefits from technical assistance from someone familiar with the materials and the adaptation process. Contact imaimail@who.int or the WHO country or regional office.

Updated and new tools can be accessed by going to www.who.int/hiv/capacity/en/ then clicking on Sharepoint Registration at bottom of page (free registration). The tools are being iteratively improved with country use; some are designated as 'draft' and are being further developed, fieldtested and/or finalized (see descriptions below and on the documents). More than 30 countries have adapted the tools to their national conditions; country adaptation is an essential step before using the materials. Before using material, access the website to check for updates and contact imaimail@who.int for the source files (in InDesign, Word or Excel); you can also contact the WHO regional or country office to determine if country-adapted versions are available or to participate in the adaptation process.

2.22 Summary list: IMAI/IMCI materials

This list includes only those where development has been completed and training materials have been pre-tested.

Non-reusable Clinical Instructional Materials (copies to each participant and facilitator)

Guideline Modules

- *Chronic HIV Care with ARV Therapy and Prevention Rev 1 (June 2007)*
- *Acute Care Rev 2*
- *Palliative Care: symptom management and end-of-life care Rev 1*
- *General Principles of Good Chronic Care*
- *TB Care with TB-HIV Co-Management (June 2007)*
- *IMCI chart booklet for High HIV Settings*

Participant Training Manuals and Handouts

- *Participant Manual for the WHO Basic HIV Care/ART Clinical Training Course*
- *Participant Manual for the IMAI Acute Care Training Courses (Opportunistic Infections, Mental Health/Neurology, STI, PITC and other short courses)*
- *Participant Handouts for ART Aid Course*
- *4 training modules for IMCI-HIV complementary course*

Facilitator Guides

- *Course Director/Facilitator Guides for the WHO Basic HIV Care/ART Clinical and Acute Courses (this is a combined facilitator guide including both the Basic HIV Care/ART clinical course and the several Acute Care short courses except STI)*
- *Facilitator Guide of the STI short course*
- *Facilitator Guide for the ART Aid Course*
- *Facilitator Guide for the WHO Basic ART Expert Patient-Trainer Course*

Tools for Patient Education and Self-Management

- *Flipchart for Patient Education (draft revised- for review and country adaptation))*
- *Family Planning and Reproductive Choice flipchart*
- *Patient Treatment Cards & Prevention (for each first line regimen in national guidelines) in Annex D, Participant Manual Basic ART. Print on both sides.*
- *Patient Self-Management Booklet (new draft revised- for review and country adaptation)**
- *Caregiver Booklet*

Pretest = Post-test (in separate electronic file, Pre-Post Test for each course, revised for country)

Instructional Materials: Reusable Kit for each classroom plus skill stations

	Basic ART Clinical Course	Acute Care: OI Short Course	Patient Monitoring Course
Wallcharts			
Sequence of Care After Positive HIV Test	X		
HIV Care/ART Card (nationally adapted if ready)—summary page	X		X
HIV Care/ART Card: Encounter Form			X
HIV Care/ART Card: Education/Counselling			X
The 5 A's	X		
General Principles of Good Chronic Care	X		
Review TB Status	X		
Clinical Review of Symptoms and Signs, Medication Use, Side Effects, Complications	X		
Coordinated Approach to Chronic Care	X		
7 Requirements to Initiate ARV Therapy at First-level Facility	X		
Treat Opportunistic Infections before starting ART	X		
WHO Adult HIV Clinical Staging	X		
WHO Paediatric HIV Clinical Staging	X		
Quick Check		X	
IMAI Acute Care Recording Form frontside		X	
IMAI Acute Care Recording Form backside		X	
Assess Acute Illness/Classify/Identify Treatments—cough or difficult breathing		X	
PreART Register			X
ART Register—page 1			X
ART Register—page 2			X
Laminated cards			
Yes/No Cards (for in class use)	X		
OI Cards (for in class use)	X	X	
Side Effects Cards (for use in class and skill stations)	X		
HIV Clinical Staging Cards (for skill station use)	X		
HIV/TB Cards (for skill station use)	X		
Drug Name/Abbreviation Cards (for skill station use)	X		
Management of side effects cards	X		
Photo booklet including photos for Basic ART and Acute Care courses	X	X	

3 IMAI implementation steps

IMAI is not a fixed package, but an integrated, flexible set of operational interventions in several compatible formats that can guide the further development of health services in a country based on a public health approach.

To date, more than 30 countries have expressed interest in reviewing their current treatment approach based on IMAI principles, and more than 20 have initiated the adaptation of this broad and generic integrated package. While the process will vary from country to country based on the specific stage of the HIV/AIDS response, a number of key steps apply throughout:

Step 1: Country orientation and review of national scale-up approach

At the request of the countries, WHO-IMAI experts come to the country to work with the MOH and key partners to provide an orientation on the IMAI integrated package and its concept. The focus of this step is to review the national scale-up approach and to evaluate the possible input and support through the IMAI. The usual duration of an orientation meeting is 3 days. In some cases, it is also possible for MoH teams to participate in international IMAI orientation workshops, and to organize a broader meeting consequently. Often, these workshops result in an official request to WHO to support the country adaptation and roll-out of IMAI.

Step 2: Adaptation

2A. Clinical adaptation

IMAI supports a "blitz adaptation" in weeks, compared to IMCI which often required 6 months to a year. A checklist to guide adaptation has been produced and several adaptation workshops to prepare national staff from interested countries and WHO and agency staff to technically support adaptation have been carried out. Several others are planned in the near future, as well as individual country visits to support adaptation workshops.

Essential clinical adaptations to match the country's essential drug list include:

- Antimalarials—first and second line
- Antibiotics for various conditions including STIs
- Equivalent common alcohol drinks

Other clinical adaptations are possible to adjust to country guidelines and differing epidemiology of disease (for example, adding leishmaniasis, borreliosis or dengue in the fever algorithm).

2C. Sociocultural adaptation

The *Flipchart for Patient Education*, patient treatment cards, *Patient Self-Management and Caregiver Booklet*, some sections of the guidelines, and various explanations within the training materials all would benefit from sociocultural adaptation. This adaptation needs to take place in each country and likely in each region in which they are to be used if they are to have local significance and effectiveness. This often involves changing the line drawings and wording; these adapted materials should be pretested for effectiveness and understanding.

The sociocultural adaptation process is designed to last about 3 weeks and is based on interviews and focus group discussions with PLHIV, community members, community health workers, organizations promoting health education and other relevant stakeholders. WHO has developed a detailed sociocultural adaptation guide that outlines this process.

Step 3: Scale-up planning and preparation

3C. Prepare district/regional management

IMAI recognizes the critical role that HIV/AIDS authorities at the district level play for the coordinated roll-out of all components necessary for treatment scale-up—including training of clinical teams, organization of drug supplies, and patient tracking and reporting. Building capacity of district managers to take this role is supported by a specific training course, and it is recommended that such training occurs early in the process of IMAI adaptation, ideally before the training of clinical teams. The **IMAI training course for district HIV coordinators** touches on topics such as planning (care, training), forecasting, supervision, drug supply, and usually takes 3 days.

Step 4: Training

4A. Prepare Expert Patient-Trainers (EPT)

Creating a pool of expert patient-trainers (EPT) in the region is an essential preparatory step before large-scale, continuous training. EPT's are generally selected from organizations of people living with HIV/AIDS and undergo a training course of 3 days to be facilitators for health workers. Developing a pool of about 20-30 expert patient-trainers per training site is relatively easy and can be done well in advance of the clinical training. They should be given short-term contracts to work at training sites for several weeks at a time.

4B. Training of trainers (TOT)

The initial phase of IMAI roll-out emphasizes the development of a core cadre of trainers that can consequently train clinical teams. From the beginning, trainings of trainers (TOT) are combined with real training of health workers as training practices to teach trainers “on the job.” Future trainers receive a 2-day orientation in IMAI training materials so that during the subsequent week they can teach all courses while being supervised by IMAI training experts.

4C. Continuous training

Training should not be a bottleneck to scale-up. Large numbers of health workers at all levels of the health system can be trained all at once and immediately start enrolling patients in chronic HIV care. This can only be done by building regional training capacity. Continuous training is more efficient because there is a lot of time and energy required in setting up a training site. After an initial TOT in a region, the best trainers should be selected to form a regional training team. A team of 6 people can train 90-120 (classes of 15-20, separated by cadre). Each training site can operate continuously for 6-8 weeks (270-480 health workers). Outside facilitators can watch and assist during the first few sessions; the regional training team can continue after that.

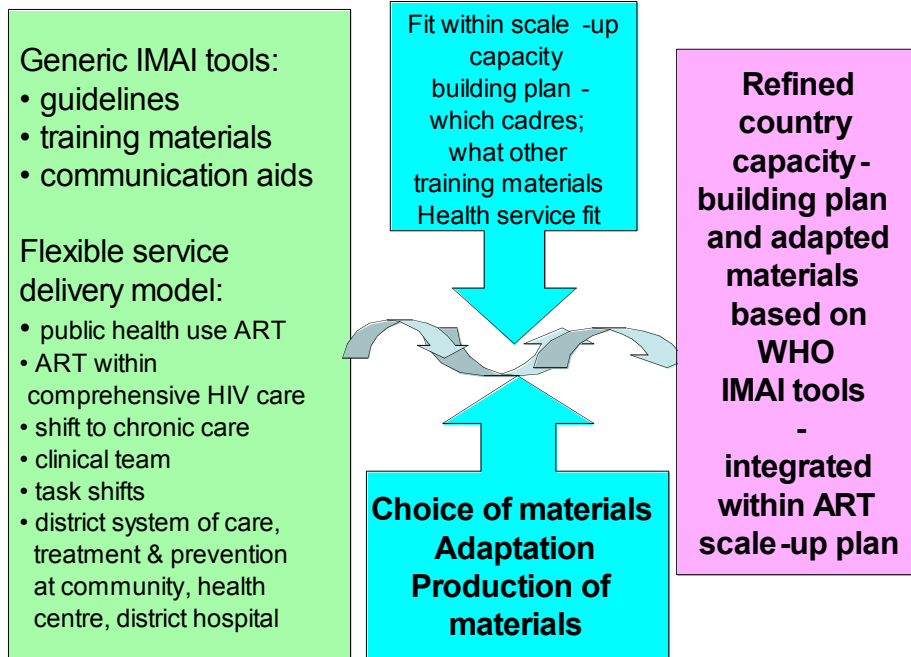
Step 5: Follow-up after training

Continued supervision of and support for trained clinical teams is critical to ensure their ability to provide high quality services. Supportive supervision and clinical mentoring are usually coordinated by the district management team and is covered in their training courses.

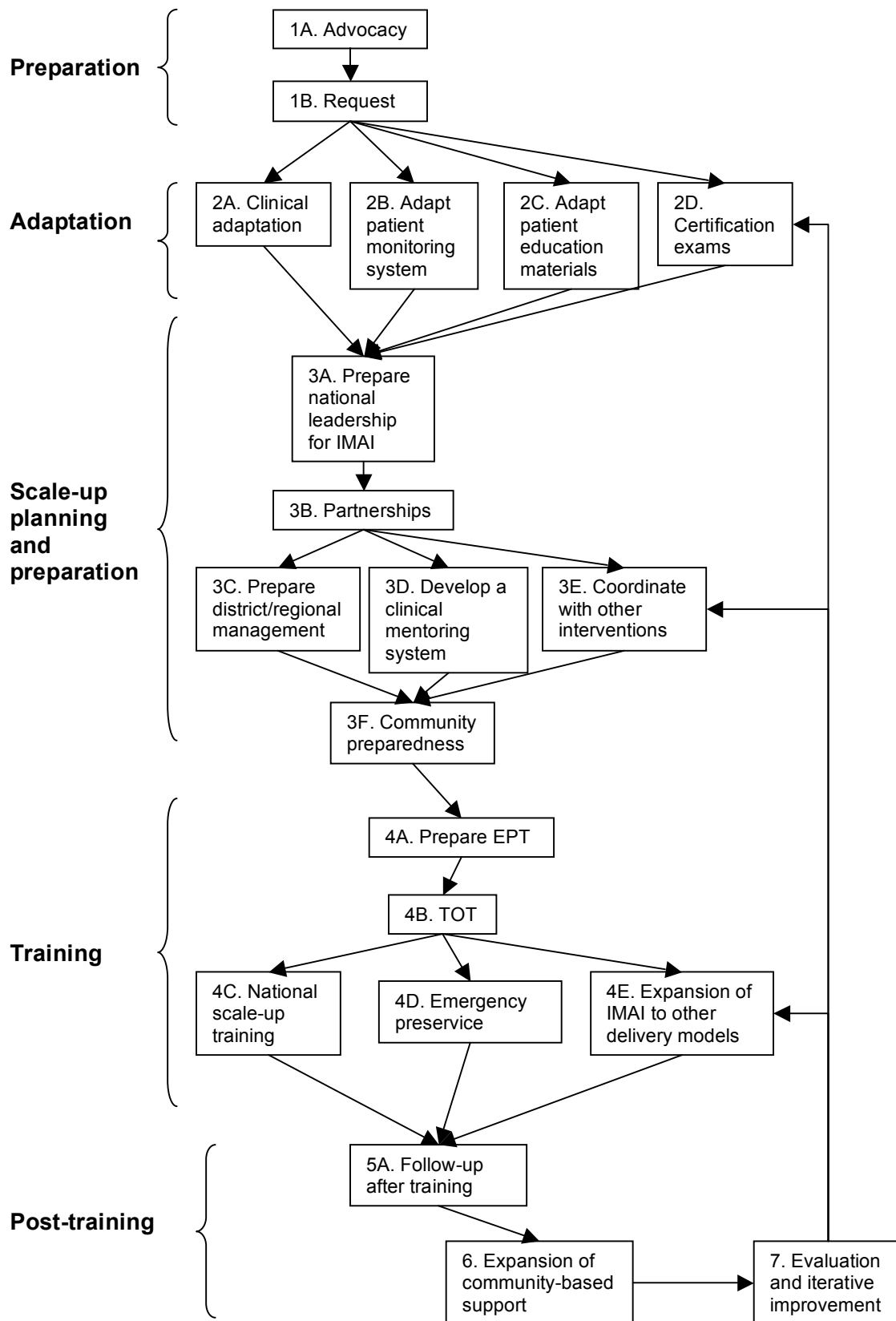
The first follow-up visits to hospitals and health centres need to take place almost immediately after the clinical training to solve the common problems: clinic organization, clinical team building, patient monitoring forms, job aids and patient education materials. Health workers are trained in these topics in the initial training, but it can be difficult to institute these practices in their health facilities. With time, subsequent follow-up visits focus more on quality of care.

Concrete steps to IMAI implementation for ART scale-up





IMAI implementation flowchart



Generic IMAI country plan for emergency scale-up of HIV care, ART and prevention

This addresses just IMAI, not expanded integrated district training. Other elements will be added and tested if they meet country needs.

Assumptions:

- national ART guidelines exist
- political commitment to HIV care/ART scale-up
- parallel efforts to ensure a secure supply of drugs and other commodities compatible with decentralized public health approach and review of existing drug supply management system with country EDM staff in order to adapt the health centre drug supply management training module once available

1. Preparation	1A. Advocacy and introduction	Introduce IMAI on country visits or in intercountry meetings and to NGOs/FBOs, using IMAI briefing package, powerpoint slidesets, etc
		Invite national programme manager and senior clinician or trainer to an IMAI international clinical training followed by 2 day country adaptation workshop or inter-country adaptation workshop. Both require special facilitators. Almost all countries have started ART in hospitals. National staff need to understand that IMAI can help in the next phase, going beyond the hospital, as well as strengthening chronic care and clinical teamwork in the district outpatient clinic.
	1B. Request	Be proactive; do not wait for a request for IMAI adaptation.
		Provide essential translations: Chinese, French, Portuguese, Spanish (most country-specific translation should follow adaptation)
2. Adaptation	2A. Clinical adaptation including health system fit	Preparation for adaptation: send adaptation checklist, several national staff or partners should already prepared based on attendance at IMAI adaptation workshop or clinical training.
		Prior technical work in country (talk with programmes prior to meeting; gather various guidelines)
		Provide most current revision of IMAI guideline modules, other integrated guideline modules and relevant other country adaptations
		First country adaptation workshop with appropriate national programmes and partners. This requires WHO staff or consultants who are clinically skilled and trained and experienced in IMAI country adaptation. Output: suggested changes plus list of technical questions for rapid resolution
		Insert legible changes into IMAI modules on print-out
		Make changes in InDesign (Geneva or South Africa or North Carolina graphics contractors); HQ or regional staff oversight of accurate changes; PDF light version to country for review
		Second adaptation/consensus workshop
		Final revisions in InDesign; arrange for direct communication between graphics person and in-country printer

	2B. Adaptation of patient monitoring system (clinical team to district)	Review existing country patient monitoring system for HIV Care/ART.
		Revise patient monitoring system to make sure it is adequate for Chronic HIV Care as well as ART, and conforms to minimum standard data set in <i>Interim Patient Monitoring Guidelines</i> and can measure the core and other key indicators.
		Finalize forms (card, registers, reports). Consult with IMAI patient monitoring subteam. Print registers and report forms.
		Modify training materials to fit country forms (<i>Chronic HIV Care</i> includes the card, additional training materials for registers and reports).
		Adaptation of HealthMapper or other appropriate software for district-to-national reporting and aggregations.
	2C. Adaptation of patient education materials and explanatory materials (cultural adaptation)	This may require both country then further local adaptation. Utilize PLHIV groups and draw from their materials; their ownership of these materials is important since they will be used both in health facilities and in the community. Key informant interviews and focus groups with PLHIVs, community caregivers, treatment supporters to assess understanding and suggest modifications in flipchart, patient treatment cards, <i>Patient Self-Management and Caregiver Booklet</i> , explanations within the training materials
		Other steps in rapid ethnographic adaptation (refer to written protocol)
		Revise/redraw line drawings
		Pretest for understanding
		Print
	2D. Adapt certification exams	Consideration and adaptation of post-IMAI training certification exams
3. Scale-up planning and preparation	3A. Prepare national leadership for IMAI	3by5 country officer works with National AIDS Programme Manager and in-country training or ART clinical committee. If there is an existing national scale-up plan, the capacity building section may need to be revised/reconsidered to take into account IMAI
	3B. Partnerships	Discuss with 3by5 country officer or national programme staff the role of existing and potential partners who could participate in training by region or specific sites
		Explore potential sources of funding and staff for scale-up training (release of GF monies, USG country funds, NGO's)
	3C. Prepare district/regional management	Choice of first region (and order of future regions if possible)
		Meet with regional HIV team, plan for district ART management course. Invite other regional responsible person so they can also start planning, for as rapid scale-up with continuous training

		region by region as possible.
		Review district HIV care/ART management course—make essential country adaptations
		Conduct district or regional ART management course
		District team prepares sites/clinical teams/communities for training
	3D. Develop clinical mentoring system	Develop clinical mentoring/consultative referral system nationally
		District team prepares for clinical mentoring/consultative referral system for follow-up after training
	3E. Develop patient monitoring system	Finish adaptation and printing of forms and registers. Adapt software for district to national system.
	3F. Coordinate with other interventions	Coordinate with other essential district-level training and drug/diagnostic supply (this will evolve into integrated district training with IMAI)
	3G. Community preparedness	
4. Training	4A. Prepare PLHIV expert patient-trainers	Recruit and train PLHIV expert patient-trainers one week before initial TOT.
	4B. TOT (Training of trainers)	Train trainers for country in one or two courses. May start in region or centrally.
		Invite staff from potential partners to the first TOT.
		Invite representatives from other countries for training and adaptation workshop.
	4C. National scale-up of training	Start in regional/districts that have gone through management course and selected sites/clinical teams. Build regional capacity for IMAI training and post-training follow-up and community involvement.
	4D. Emergency preservice	Pre-service introduction—starting in emergency/scheduling mode. Early meeting with nursing and medical school representatives to discuss emergency preservice integration of IMAI. Modify only as strictly necessary. Train facilitators at same time.
	4E. Expand IMAI to other service delivery approaches	Modify and expand use of IMAI tools to other service delivery options: workplace, prisons, military, IDU drug substitution programmes. Choose most efficient. Modify only as strictly necessary. Train facilitators at same time.
5. Post-training support	5A. Follow-up after training	On-site visits by district team to address clinical team function, HW safety (PEP,...), patient monitoring by clinical team
		Ongoing clinical mentoring visits and back-up by distance communication
		Team to team support
		Patient monitoring system support

	5C. Facility accreditation	
	5D. Provider certification	
6. Expansion of community-based support and role		
7. Evaluation and iterative improvement	7A. Evaluation	Qualitative assessment on-site after training
		Use SAM, pSAM, add case management observation/exit interview modules in Pendragon
		Yearly visits to facilities for additional indicators; calculate treatment outcomes via cohort analysis report
	7B. Iterative improvement of IMAI tools/approach	