

PART 2

Packages of services and activities at different levels of the health system

Part 2 provides details on the package of services and activities to be provided at different service delivery levels. First, a simple overview of programme activities at different service delivery levels will be provided. This will be followed by details of activities, staff requirements, equipment and drugs that should be available at each level of service delivery.

The purposes of defining packages of services and activities to be available at each level of service delivery (tertiary, intermediate/district, and community) are to:

- clearly outline the services and activities to be provided at each level of service delivery;
- promote efficiency in service delivery while avoiding overlap and unnecessary costs;
- enable effective referral mechanisms to be developed between each level of service delivery; and
- provide guidance for planning of HIV/AIDS care and treatment, including costing and allocation of resources such as personnel, drugs, diagnostics, and supplies to be provided at each level.

As described in Part 1, the focus for developing HIV/AIDS care and treatment is placed on the district or intermediate level of the health system. Therefore, the services and activities to be provided at this level are defined as the essential package of services and activities (EPSA).

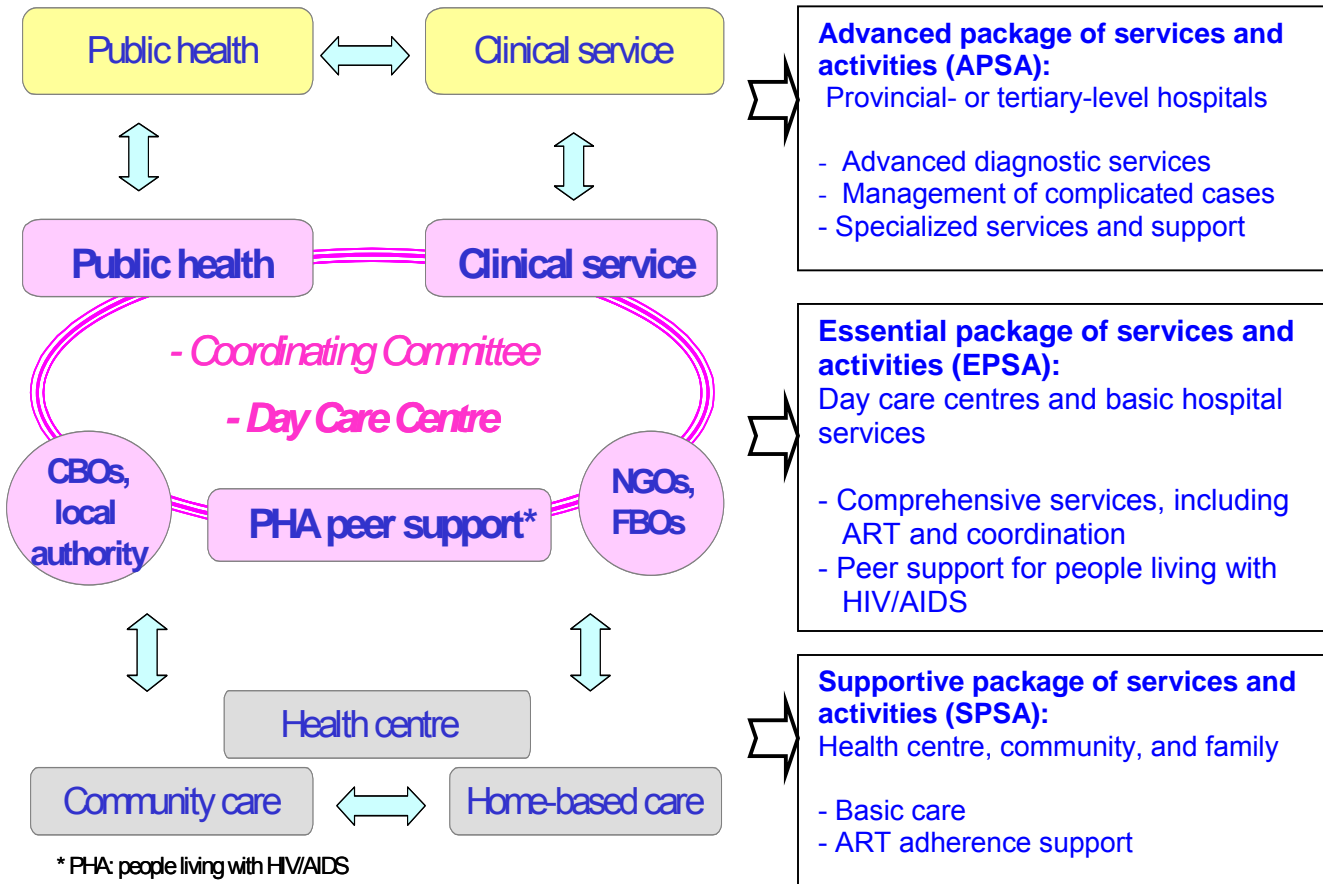
Although there are some variations in the roles played by the day care centres and the district- or intermediate-level hospitals (Part 1) the two levels of the system should complement each other. They also provide technical and administrative supervision and support to health centres and to home- and/or community-level care.

Tertiary- or provincial-level hospitals should be able to manage complicated cases that are beyond capacity of district- or intermediate-level health facilities. EPSA should also be made available for those who reside in the district or administrative area where the tertiary level hospital is located.

The tertiary- or provincial-level facilities are responsible for providing technical and administrative supervision and support to health facilities at lower levels. These services and activities are defined as the advanced package of services and activities (APSA).

Health centres, home-based care teams (if available), community, and family should play crucial roles in psychological support, education, and socioeconomic support, with special emphasis on ART adherence. Referral of cases, provision of basic clinical care and palliative care, as well as promotion of access to testing and counselling, prevention, and health promotion are also important for this level. These are defined as the supportive package of services and activities (SPSA).

Figure 6. Overview of package of services and activities



The following tables show detailed services and activities, staff requirements, equipment, and drugs that should be available at the tertiary level (APSA); the district or intermediate level (EPSA); and the health-centre, home-based, and community-care level (SPSA).

Table 6. Advanced package of services and activities (APSA): provincial- and/or tertiary-level hospitals

Structure and staff	Services and activities	Drugs, laboratory equipment and other resources	Remarks
<p>Structure: Tertiary referral hospital at the national, regional, and/or provincial level.</p> <p>Staff: HIV care coordinator if appropriate (see Table 7)</p> <p>HIV/AIDS expert medical staff (doctors, nurses)</p> <p>Counsellors</p> <p>Social workers</p> <p>Laboratory technicians with specialized training for CD4, complex blood chemistry (possibly viral load)</p> <p>Pharmacists with expertise in opportunistic infections and ART drug management</p> <p>Other diagnostic technicians</p>	<ul style="list-style-type: none"> ▪ Diagnosis and management of complex opportunistic infections ▪ Diagnosis and management of complex drug side-effects (opportunistic infections and ART) ▪ Assessment of ART failure and provision of second-line ART ▪ Adherence support ▪ Refer back to district level for chronic care management ▪ Support/advise district level HIV/AIDS care and treatment team <p>Plus</p> <p>All services and activities outlined in tables of district/intermediate level hospital and of day care centres (EPSA) should be made available for those who reside in the district or relevant administrative area where the tertiary level hospital is located</p>	<ul style="list-style-type: none"> ▪ Laboratory equipment to perform CD4 counts (possibly viral load), serology (HBV, HCV, syphilis), chemistry (e.g. liver and renal function and metabolic assessment), basic microbiology and culture ▪ Second-line ART regimen (ABC or TDF) + ddi + (SQV/r or LPV/r) ▪ Drugs for treatment of complex opportunistic infections (MAC, CMV, etc.) ▪ Referral forms for continuity of care <p>Top referral hospitals should also have the following services:</p> <ul style="list-style-type: none"> - Histology - Complex microbiology (Mycobacteria other than TB, resistance testing) - Complex imaging (CT scans, endoscopy, bronchoscopy) 	<p>Tertiary level hospitals will be referral hospitals at different levels of the health system (national, regional, provincial).</p> <p>These hospitals should have expert HIV/AIDS practitioners and perform complex diagnosis and treatment.</p> <p>These practitioners should also provide advice, training, and support to district-level hospital and day care centre staff.</p>

Table 7. Essential package of services and activities (EPSA): district- or intermediate-level day care centres

Structure and staff	Services and activities	Drugs, laboratory equipment, and other resources	Remarks
<p>Structure The day care centre may be part of the district hospital or it might be a stand-alone facility. If stand-alone, close links to district hospital are essential</p> <p>Staff <i>HIV care coordinator:</i> Focal point for planning, implementing, monitoring and evaluating HIV/AIDS care and treatment in the area (see section 3-2) Create an HIV care team)</p> <p><i>Participation by people living with HIV/AIDS:</i> Selected people living with HIV/AIDS and health workers to facilitate day care centre meetings and activities</p> <p><i>Clinical management:</i> Doctor, nurses, counsellors, people living with HIV/AIDS, pharmacists, and laboratory technicians (working part or full time) as integral part of the HIV clinical care team at district- and/or intermediate-level hospital</p> <p><i>Others:</i> Possibly: social workers, midwives</p>	<p>Mobilization and coordination of key players, including people living with HIV/AIDS</p> <ul style="list-style-type: none"> ▪ Regular meetings and case conference with stakeholders ▪ Develop referral criteria and procedures ▪ Support/advise health centre and home-community level ▪ Regular meetings and capacity building activities among people living with HIV/AIDS ▪ Involve people living with HIV/AIDS in service planning, provision and evaluation <p>HIV testing and counselling</p> <ul style="list-style-type: none"> ▪ Provide or refer to testing and counselling* <p>Clinical</p> <ul style="list-style-type: none"> ▪ Initiate and follow up cotrimoxazole prophylaxis and refer to health centre for follow-up if adequate** ▪ Provide or refer to district hospital for screening, diagnosis, and treatment of selected opportunistic infections ▪ Initiation and follow-up of first-line ART regimen and refer to health centre for follow-up if adequate ▪ Refer complicated cases to tertiary level ▪ Provide management of symptoms and pain <p>Psychological and socioeconomic support</p> <ul style="list-style-type: none"> ▪ Individual, couple, family and group counselling and education ▪ Recreational activities ▪ Nutritional and daily life support ▪ Refer complicated cases to tertiary level ▪ Education for the hospital staff and the community ▪ Advocate for or use local scheme for free of charge or at subsidized rates of clinical services (equity fund, etc.) ▪ Advocate for and refer to social welfare services ▪ Develop or refer to income-generating activities ▪ Provide or refer to support for families and affected children ▪ Provide or refer to end-of-life care <p>HIV prevention</p> <ul style="list-style-type: none"> ▪ Promote safer sex and condom use, refer to services for sexually transmitted infections ▪ Provide or refer to harm reduction and substitution treatment for injecting drug users*** ▪ Universal precautions, post-exposure prophylaxis, and prevention of mother-to-child transmission 	<p>HIV testing</p> <ul style="list-style-type: none"> ▪ HIV rapid test kits (WHO approved) <p>Clinical examinations</p> <ul style="list-style-type: none"> ▪ Basic physical examination equipment ▪ Laboratory equipment to collect specimens <p>Drugs</p> <ul style="list-style-type: none"> ▪ Drugs for treatment and prophylaxis of opportunistic infections (Table 11) ▪ Five selected ARV first-line-regimen drugs (AZT, d4T, 3TC, NVP, and EFV) ▪ Drugs for symptom relief and pain management (Table 20, Figure 9) ▪ Drugs for substitution treatment (methadone) <p>Prevention</p> <ul style="list-style-type: none"> ▪ Condoms ▪ Needle and syringes ▪ Drugs/supplies for Universal precautions, post-exposure prophylaxis, and prevention of mother-to-child transmission <p>Monitoring and evaluation</p> <ul style="list-style-type: none"> ▪ Patient/monitoring and evaluation records and reports ▪ Referral cards 	<p>* HIV testing and counselling should be available in voluntary testing and counselling centres, district hospitals, and/or day care centres.</p> <p>** INH prophylaxis and fluconazole prophylaxis should also be available if indicated in national guidelines (Table 11, Part 3).</p> <p>*** Harm reduction for populations of injecting drug users is essential in countries with a high prevalence of injecting drug use (see prevention Part 3).</p> <p>Harm reduction activities are usually provided in outreach centres or in the day care centre. Linkages and referral to provide harm reduction services on an outreach basis might be necessary.</p>

Table 8. Essential package of services and activities (EPSA): district- or intermediate-level hospitals

Structure and staff	Services and activities	Drugs, laboratory equipment and other resources	Remarks
<p>Structure Outpatient departments, inpatient department, laboratory services, pharmacy, and radiology</p> <p>Referral pathways to other programmes for testing and counselling, TB, antenatal care, sexually transmitted infections, and family planning</p> <p>Staff HIV clinical care team including physicians, nurses, pharmacists, and laboratory technicians. Other allied health professionals might include midwives, counsellors, and TB programme personnel.</p> <p>People living with HIV/AIDS (acting as treatment educators, adherence supporters, HIV prevention educators, and supporters)</p>	<p>HIV testing and counselling</p> <ul style="list-style-type: none"> ▪ Provide or refer to testing and counselling* <p>Outpatient departments</p> <ul style="list-style-type: none"> ▪ Initiate and follow up cotrimoxazole prophylaxis and refer to health centre for follow-up if adequate** ▪ Screen, diagnose, and treat selected opportunistic infections, including TB (Table 11) ▪ Initiate and follow up first-line ART regimen and refer to health centre for follow-up if adequate ▪ Symptom management including pain management ▪ Support ART adherence through education and counselling for people living with HIV/AIDS and their family members ▪ Psychological support and education ▪ Universal precautions ▪ Post-exposure prophylaxis ▪ Refer to day care centres, inpatient departments, TB services, stand-alone voluntary counselling and testing centres, clinics for sexually transmitted infections, family planning, antenatal care, and services for the prevention of mother-to-child transmission, as necessary ▪ Involve people living with HIV/AIDS in the provision of services <p>TB services</p> <ul style="list-style-type: none"> ▪ Diagnosis and treatment of TB, including smear-negative and extrapulmonary TB ▪ Refer TB patients to HIV testing and counselling ▪ Management of basic treatment and prophylaxis of opportunistic infections, in collaboration with medical wards, day care centres or HIV outpatient clinic <p>Inpatient care/medical ward</p> <ul style="list-style-type: none"> ▪ Diagnosis and treatment of opportunistic infections and provision of ART ▪ Palliative care ▪ Counselling, universal precautions, and post-exposure prophylaxis <p>Maternity</p> <ul style="list-style-type: none"> ▪ HIV testing and counselling linked with maternal and child health, antenatal care, labour, and delivery ▪ Prevention of mother-to-child transmission <p>Linkages with prevention activities</p> <ul style="list-style-type: none"> ▪ Promote safer sex and condom use ▪ Provide or refer to services for sexually transmitted infections ▪ Provide or refer to harm reduction and substitution treatment for injecting drug users <p>Referral system development</p> <ul style="list-style-type: none"> ▪ Develop criteria and procedures of referral within hospital and to tertiary hospitals, day care centres, and health centres ▪ Support/advise health centre and home-community level 	<p>Laboratory (Table 10)</p> <p>Radiology (Table 10) Chest X-ray</p> <p>Drugs</p> <ul style="list-style-type: none"> ▪ Drugs for OI prophylaxis (Table 11) ▪ Drugs for treatment of selected OI (Table 11) ▪ ARV first line regimen drugs (AZT, d4T, 3TC, NVP and EFV) ▪ Drugs for symptom relief and pain management (Table 20, Figure 9) ▪ Drugs for substitution treatment (methadone) <p>Prevention</p> <ul style="list-style-type: none"> ▪ Condoms ▪ Needle and syringes ▪ Drugs/supplies for universal precautions, post-exposure prophylaxis, and prevention of mother-to-child transmission <p>Monitoring and evaluation</p> <ul style="list-style-type: none"> ▪ Patient/monitoring and evaluation records and reports ▪ Referral cards 	<p>* HIV testing and counselling should be available in voluntary counselling and testing centres, district hospitals, and/or day care centres.</p> <p>** INH prophylaxis and fluconazole prophylaxis should also be available if indicated in national guidelines (Table 11, Part 3)</p>

Table 9. Supportive package of services and activities (SPSA): health centre, home- and/or community-based care

Structure and staff*	Services and activities	Drugs, laboratory equipment and other resources	Remarks
<p>Health centre Structure: Health centres are at the primary health care level and based within communities Staff: might include doctor, nurses, midwives, community volunteers, and people living with HIV/AIDS**</p> <p>Home-based care team Structure: Home-based care team office as part of health centre, or with close links to health centre Staff: <i>Home-based care team members:</i> Health workers from health centre People living with HIV/AIDS NGO/FBO staff*** Community health volunteers Respected traditional healers (identified by the community)</p> <p><i>Health worker from health centre mainly for coordination, supervision, and technical support</i></p> <p>Community All HIV/AIDS-related organizations that operate within the community, such as CBOs (including mass organizations*), NGOs, FBOs, and local authorities</p> <p>Family support Member of the same household, person living with HIV/AIDS, or member of extended family</p>	<p>Mobilization and coordination of key players, including people living with HIV/AIDS</p> <ul style="list-style-type: none"> ▪ Coordinate home-based care, NGOs, CBOs, FBOs, and community ▪ Promote/encourage peer support and development of groups for people living with HIV/AIDS <p>HIV testing and counselling</p> <ul style="list-style-type: none"> ▪ Provide or refer to HIV testing and counselling <p>Clinical</p> <ul style="list-style-type: none"> ▪ Refer to day care centre/district hospital and follow up prophylaxis of opportunistic infections ▪ Provide symptomatic care ▪ Refer to TB services systematically ▪ ART: Adherence support, manage minor side-effects and refer to district or tertiary level if necessary ▪ Provide symptom and pain management <p>Psychological and socioeconomic support</p> <ul style="list-style-type: none"> ▪ Individual, couple, family, and group counselling and education ▪ Education for hospital staff and the community ▪ Refer complicated cases to district and tertiary level ▪ Provide or refer to social welfare services ▪ Provide or refer to income-generating activities ▪ Provide or refer to support for families and affected children ▪ Provide or refer to end-of-life care <p>HIV prevention</p> <ul style="list-style-type: none"> ▪ Promote safer sex and condom use, refer to services for sexually transmitted infections ▪ Provide or refer to harm reduction and substitution treatment for injecting drug users ▪ Universal precautions post-exposure prophylaxis, refer to programmes for prevention of mother-to-child transmission ▪ Promote healthy lifestyle, including nutrition 	<p>Health centre</p> <ul style="list-style-type: none"> ▪ Simple physical examination equipment ▪ Drugs for simple symptom relief and pain management (Table 20, Figure 9) ▪ Drugs for prophylaxis of opportunistic infections (Table 11) ▪ Equipment to collect laboratory specimens for transportation ▪ Information, education, and communication materials ▪ Condoms, needles, and syringes <p>Home-based care/outreach team</p> <ul style="list-style-type: none"> ▪ Home-based care/outreach kits: e.g. soap, disinfectant, calamine lotion, local herbal remedies, gentian violet, vitamins, iodine solution, condoms, and simple medications**** ▪ Information, education; and communication materials; condoms, needles, and syringes <p>Community</p> <ul style="list-style-type: none"> ▪ Information, education, and communication materials; condoms ▪ Social welfare (subsistence allowance, food, shelter, clothing, etc.) ▪ Income-generating activities (materials, seed funding, marketing information, etc.) ▪ Support for affected children (schooling, legal help, staying with extended families, etc.) <p>Family support</p> <ul style="list-style-type: none"> ▪ Basic nursing care supplies (if necessary) ▪ Information, education, and communication materials; condoms 	<p>* Health centres, home-based care teams, communities, and family should complement each other to make SPSA available.</p> <p>** The number and composition of health centre staff will vary in each country. It is essential to have people living with HIV/AIDS involved in the health centre.</p> <p>*** Apart from health centre staff and people living with HIV/AIDS, members of the home-based care teams will vary depending on the local conditions and the country.</p> <p>**** Simple medications such as paracetamol, nystatin, aluminium or magnesium tablets, and oral rehydration salts may be included in home-based care kits. (Table 8, Table 20, Figure 9).</p>

Table 10. Laboratory services for HIV/AIDS care and treatment at the district or intermediate level

- Rapid HIV Ab testing
- Second serologic method capability to resolve indeterminate rapid HIV Ab test
- Complete blood count (CBC) and differential including total lymphocyte count (TLC)
- CD4 count*
- Alanine aminotransferase (ALT)**
- Glucose
- Pregnancy test
- Sputum smear for TB
- Gram and Wright stains
- Spinal tap (lumbar puncture, examination of cerebrospinal fluid) and India ink stain**
- Fundoscopy**
- Malaria smears
- Urinalysis
- Chest X-ray

* CD4 count is promoted as standard of care but is not absolutely necessary. Total lymphocyte count can be used in patients with HIV-related symptoms (WHO Stage II) for initiating treatment as a substitute where CD4 count is unavailable.

** Currently it may not be available at district or intermediate level, but should be equipped.

Table 11. Opportunistic infections and other illnesses to be managed at the district or intermediate level*

Main symptoms	Disease	Prophylaxis (P: primary, S: secondary)	Diagnosis	Treatment
Respiratory	TB	P: INH	Smear, chest X-ray	National TB programme regimen
	Bacterial pneumonia	P: Cotrimoxazole	Chest X-ray, smear	Antibiotics
	Pneumocystis carinii pneumonia (PCP)	P and S: Cotrimoxazole	Clinical, chest X-ray	Cotrimoxazole
Neurological	Toxoplasmosis	P: Cotrimoxazole S: Pyrimethamine + sulfadiazine	Clinical	Pyrimethamin + sulfadiazone, or referral*
	Cryptococcosis	S: Fluconazole	Clinical, spinal tap, India ink stains	Amphotericin B, flucytosine, fluconazole, or referral *
	TB meningitis	P: isoniazid (INH)	Clinical, spinal tap	National TB programme regimen
	Bacterial meningitis		Clinical, spinal tap	Antibiotics
Skin and mucosal	Candidiasis		Clinical	Topical (gentian violet, nystatin or clotrimazole lozenges), fluconazole or ketoconazole
	Penicilliosis	S: Itraconazole	Clinical, smear	Amphotericin B, itraconazole, fluconazole, or referral*
	Herpes simplex		Clinical	Topical, acyclovir if available
	Herpes zoster		Clinical	Topical, acyclovir if available
	Pruritic papular eruption (PPE)		Clinical	Steroid (ART effective)
	Seborrheic dermatitis		Clinical	Steroid (ART effective)
Diarrhoea	Diarrhoea		Clinical, empirical treatment	Rehydration fluids, loperamide, antibiotics, metronidazole, cotrimoxazole, mebendazole, (ART)
Fever	Septicaemia		Clinical, empirical treatment	Antibiotics
Lymphadeno-pathy	TB		Clinical, Aspiration	National TB Programme regimen
Others	Cytomegalovirus (CMV)			(ART)
	Cervical cancer		PAP smear, or referral	Referral

*See Part 3 for details of clinical management

**Use of amphotericin B or pyrimethamine + sulfadiazine requires specific clinical capacity